
UNRAVEL

An FMT and PSM
Objective QBank



UNRAVEL-21

It's a compilation of the MCQ sections from the model papers of all medical colleges across Kerala.

As for the questions, the numbers might not align in some papers, because they've been collected from different colleges, but the answers key, assigned to each paper has been thoroughly cross checked with the respective college papers.

If there's still any correction with the answer key, please contact those below signed

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THANKYOU

MCQs

MULTIPLE CHOICE QUESTIONS (20x1- 20marks)

1. Subpoena is
A. Under penalty B. Verbal statement C. Bailable warrant D. Testimony
2. If the person fails to attend the court after getting a summons he will be
A. Liable only to fine
D. Punishment with imprisonment
B. Liable to fine and or imprisonment C. Set free without punishment
3. Conduct money is
A. Fee offered to witness in criminal case
the case D. Fee given to expert witness
B. Fee offered to witness in civil case C. Fee required to conduct
4. Summons can be issued by
A. Post
B. Police C. Both a and b D. None
5. Regarding obeying summons
A. Criminal court have priority over civil court B. Civil courts have priority over criminal courts
C. Both civil and criminal courts have equal priority D. First summons received must be attended first

MCQ SINGLE RESPONSE TYPE (20-24)

6. Corpus delicti means
A. Postmortem report
B. Chemical analysis report C. Body of offence
D. Dead body
7. Father of Legal Medicine is
A. Virchow B. Paulus Zacchias C. Joseph Bonaventure D. William Oster
8. Bridging of tissue seen in
A. Contusion
B. Incised wound C. Lacerated wound D. Incised punctured wound
9. Glove and stocking type of hypostasis is seen in
A. Hanging
B. Strangulation
C. Smothering D. Suffocation
10. Postmortem caloridity is seen with
A. Strychnine poisoning B. Lead poisoning C. Mercury poisoning
D. Phosphorus poisoning

MCQ MULTIPLE RESPONSE TYPE (25- 29)

Read the statements and mark the answer appropriately

11. In patients with substance abuse, drugs used for treatment are
i) Naltrexone (ii) Naloxone (iii) Clonidine (ii) Chlorpromazine
A. i, and iv
B. i, and iii
C. i, ii, and iri
D. i, ii, iii and iv
12. The following plants are cardiotoxic
i) Cerbera thevetia ii) Digitalis iii) Nicotiana tabacum iv) Abrus precatorius
A. i iii and iv
B. i, and ii C. i, and iii
D. i, li and ili
13. Which of the following features are commonly associated with homicidal injuries?
1) Defensive wounds (ii) Random distribution of injuries (i) hesitation cuts (iv) Injuries on vital areas like head and neck
A. i & ii B. i, ii and iv
C. i, li and iii
D. ill and iv

ANSWERS

1. A. UNDER PENALTY
 2. B. LIABLE TO FINE AND IMPRISONMENT
 3. B. FEE OFFERED TO WITNESS IN CIVIL CASE
 4. C. POST AND POLICE
 5. D. FIRST SUMMINS RECIEVED MUST BE ATTENDED FIRST
 6. C. BODY OF OFFENCE
 7. B. PAULUS ZACCHAI
 8. C. LACERATED WOUND
 9. D. SUFFOCATION
 10. A. STRYCHINE POISOING
-
11. NALTREXONE, NALOXONE, CLONIDINE, CHLORPROMAZINE
 12. CERBERA THEVETIA, DIGITALIS, NICOTIANA TABACUM
 13. DEFENCE WOUNDS, RANDOM DISTRIBUTION OF INJURIES, INJURIES ON VITAL AREAS LIKE HEAD AND. NECK

1. The following factors are considered as antemortem feature of injuries

i) Presence of vital reaction ii) Blood clots in the injury i) Pigmentation iv) Presence of neutrophils on

B. i, ii and iii

B. i and ii

C. i, ii and iv D. i, ii, iii and iv

2. True regarding fingerprint analysis method are

i) fingerprints are different for each person ii) they can be altered by superficial injuries (i) the

ridge characteristics are the basic principle it, in and indur is used to visualise the prints

B. i, ii and iii

A. i, ii and iii

Assertion (A) and Reason (R). Answer these questions by

selecting the appropriate options given below

a. Both A and R are true. R is the correct explanation of A

b. Both A and R are true. R is not the correct explanation of A

c. A is true but R is false

d. A is false but R is true

3. A. Exhumation requires requisition from Executive Magistrate

R. There is no time limit for exhumation in India

4. A. Incised looking lacerated wounds are common in scalp

R. Split lacerations occur where the subcutaneous tissue is scanty

5. A. Beating on the soles of feet (falanga) is a method of torture

R. Injuries from falanga are easily detectable through external examination

6. A. Rigor mortis appears immediately after death

R. Rigor mortis is an important indicator of time since death

7. In a case where a swab, sponge or instrument is left in the patient's body after an operation, the surgeon is liable for the damage, even though it is the theatre sister's responsibility to count the swab, sponge or instruments.

A. Res ipsa loquitur becomes applicable here

R. Vicarious liability is the reason for responsibility.

1. Multiple Choice Questions.

8. Greenish colored urine is seen in which of the following poisoning?

a) Carbolic acid b) Hydrochloric acid c) Nitric acid

d) Sulphuric acid

9. Most reliable criterion of Gustafson's method is

a) Attrition

b) Periodontosis

c) Root resorption d) Root transparency

10. Rectified spirit cannot be used for preservation of viscera in cases of poisoning

a) Aconite

b) Heavy metal

c) Paraldehyde

d) Opiate

11. Harrison & Gilroy technique is used to detect

a) Arsenic

b) Bone residues

c) Gunshot residues d) Nonmetallic poison

12. Conventional laws of courtesy observed between the medical fraternities is known as

a) Medical ethics b) Medical etiquette c) Medical safeguard d) Professional secrecy

CASE SCENARIO

Body of an adult female was recovered from forest. There were stains resembling dried blood adherent to the wooden piece near the body.

13. All are screening tests to detect blood stains except

a) Benzidine test

b) 0-Toluidine test c) Phenolphthalein test d) Precipitin test

14. Morphology of RBC of Human blood is

a) Circular, biconvex & nucleated

b) Circular, biconcave & non nucleated

c) Circular, biconcave & nucleated

d) Oval, biconvex & non nucleated

ANSWERS

1. D
2. B
3. Both A and R are true, and R is the correct explanation of A
4. Both A and R are true, and R is the correct explanation of A
5. A is true, R is false
6. A is true, R is true
7. Both A and R are true, and R is the correct explanation of A
8. Carboxylic acid
9. Root transparency
10. Paraldehyde
11. Gunshot residues
12. Medical etiquette
13. Precipitin test
14. Circular, biconcave and non-nucleated

1. Pink feathery crystals of Haemochromogen is observed in

- a) Kastle Mayer test
- b) Precipitin test c) Takayama test
- d) Teichman test

2. Confirmation of human blood is done by

- d) Spectrophotometry
- a) Immunological methods b) Marshall test
- c) Microscopy

3. The following are red cell enzymes EXCEPT

- d) Peroxidase
- c) Haptoglobin

(Questions XI - XV consists of two statements -Assertion (A) and Reason (R))

4. A. In order to subject the patient for brain stem death confirmation, he should be in apnoxic coma and on ventilator.

R. The prerequisite for brainstem confirmation is to rule out a reversible cause of coma after establishing the irreversible proximate cause of apnoxic coma.

- a) A & Rare True and R is the reason for A
- b) A & Rare True and R is not the reason for A
- c) A is True, R is False
- d) A is False, R is True e) Both are False

5. A. Puppe's Rule is to determine the sequence of injuries in skull fracture.

R. When two or more fractures occur due to successive impact and meet each other, the later fracture will cross the earlier fracture.

- a) A & R are True and R is the reason for A
- b) A & R are True and R is not the reason for A
- c) A is True, R is False
- d) A is False, R is True
- e) Both are False

6. A. Privileged communication is a statement made bonafide upon any subject matter by a doctor to concerned authority.

R. A doctor has his duty to protect the interests of the community/state.

- a) A & Rare True and R is the reason for A
- b) A & Rare True and R is not the reason for A
- c) A is True, R is False
- d) A is False, R is True
- e) Both are False

7. A. A Person had sustained a fracture on the outer table of skull due to beating with iron rod by another person which healed completely after 3 months and which can be considered as NOT a grievous hurt.

R Fracture of both outer and inner table of skull is mandatory to recognize it as grievous hurt

- a) A & Rare True and R is the reason for A
- b) A & Rare True and R is not the reason for A
- c) A is True, R is False
- d) A is False, R is True
- e) Both are False

8. A. Female pseudohermaphrodite usually have female external genitalia with genetic constitution of

R. Female pseudohermaphrodite is a condition due to congenital virilizing adrenal hyperplasia.

- a) 1 & Rare True and R is the reason for A
- b) A & Rare True and R is not the reason for A
- c) A is True, R is False
- d) A is False, R is True
- e) Both are False

multiple response type questions

9. Sure signs of death due to drowning are

- 1) Bleaching of hands and foot
- 11) Mud in the air passages
- IV) White lathery froth at nostrils
- a) Both 1 & II are correct
- b) Both 11 & III are correct
- c) Both III & IV are correct
- d) All correct

ANSWERS

- 1. Takayama test
 - 2. Immunological methods
 - 3. Peroxidase
-
- 4. Both A and R are true, and R is the correct explanation of A
 - 5. Both A and R are true, and R is the correct explanation of A
 - 6. A and R are true, and R is not the reason for A
 - 7. Both A and R are true, and R is the correct explanation of A
 - 8. Both A and R are true, and R is the correct explanation of A
-
- 9. Both 3 and 4

1. Regarding Whiplash injury- True statement/s are
- 1) Acceleration-deceleration injury sustaining to neck in vehicular accident
 - II) Commonly occurs to the frontal impacts
 - III) Hyperflexion is more dangerous than hyperextension
 - IV) Common upper cervical injuries in vehicular accidents
- a) Both I & II are correct
 - b) Both II & III are correct
 - c) Both III & IV are correct
 - d) All are correct
2. Rigor Mortis- True statements are
- 1) Calcium entry in out of the sarcomere also play a pivotal role in the mechanism
 - 11) Decline of AIP to 15% after death initiates the process
 - 111) Proximo-distal distribution is apparent
 - IV) Rigor mortis involves voluntary muscles only
- 0) Both I & III are correct
 - b) Both II & III are correct
 - c) Both III & IV are correct
 - d) 1, 11 & IV are correct
3. Regarding exhumation, True statements are
- 1) Exhumation can be conducted by written requisition of concerned Station House Officer.
 - 11) Medical doctor is not a sine quo non during the process of exhumation
 - 111) Atis lawful in India
 - IV) There is time limit for ordering exhumation in India
- a) Both I & 11 are correct
 - b) 11, 111 & IV are correct
 - c) Both III & IV are correct
 - d) Only IV is correct
4. Regarding Arsenic phosphide poisoning. True statements are
- 1) Cause of death is due to metabolic alkalosis
 - 11) Phosphine act through cellular hypoxia by inhibiting cytochrome oxidase
 - 111) Specificity of Silver nitrate test is low in Arsenic phosphide poisoning
- a) Both I & 11 are correct
 - IV) Toxic effect is due to liberation of phosphine gas
 - b) Both 11 & III are correct
 - e) Both 11 & IV are correct
 - d) Both 111 & IV are correct

Single Response Type:

5. Analysis of hair is useful in the detection of poisoning with:
 - (b) Lead
 - c) Arsenic
 - d) Cannabis
 - (a) Mercury
6. Blood samples for DNA fingerprinting should be transported in?
 - (c) Sodium fluoride
 - (d) Thymol (B) EDTA
 - (a) Normal saline
7. Inquest in case of dowry death (Sec. 80 BNS, 2023) is conducted by:
 - (b) Sub inspector
 - (c) Police
 - (d) Medical officer
 - (a) Magistrate
8. In civil negligence burden of proof lies on?
 - (a) Judicial first class magistrate
 - (b) Police officer not below the rank of sub inspector
 - (c) Doctor
 - (d) Patient
9. Rules followed amongst medical professionals which are mutual-
 - (a) Medical etiquette
 - (b) Medical ethics
 - (c) Privileged communication
 - (d) Vicarious liability

ANSWERS

1. Both I and IV
2. I, II and IV
3. II, III, IV
4. II and IV
5. Arsenic
6. EDTA
7. Magistrate
8. Patient
9. Medical etiquette

Multiple Response Type:

1. Falling or diving into water feet first or duck-diving by the inexperienced or diving involving horizontal entry into the water with a consequent blow on the abdomen can cause death by

- a) Hydrocution
- b) Immersion syndrome
- c) Near drowning
- d) Secondary drowning

2. Which of the following are related to torture?

- a) Istanbul Protocol 1999
- b) Declaration of Helsinki 1975
- c) Declaration of Tokyo 1975
- d) Declaration of Geneva 1948

3. Which of the following is/are a feature of chronic arsenic poisoning?

- a) Aldrich-meers lines
- b) Wrist Drop
- c) Rice water stools
- d) Perforation of nasal septum

4. Which of the following is /are not a disorder of mood?

- a) Obsessive-compulsive disorder
- b) Mania
- c) Phobic-anxiety disorder
- d) Schizophrenia

5. Which of the following is/are cardiac poisons?

- a) Datura
- b) Aconite
- c) Cannabis
- d) Tobacco

Assertion Reason Type:

6. A) Pathological or clinical autopsy can be undertaken only when there is an official and written order from the authorized Police Officer or Magistrate

(R) Pathological or clinical autopsy should be done according to NHRC protocol.

- a) Both Assertion and Reason are incorrect.
- b) Assertion is correct and Reason is incorrect.
- c) Assertion is incorrect and Reason is correct.
- d) Both Assertion and Reason are correct but the reason given is not that of the assertion stated.
- e) Both Assertion and Reason are correct and the reason given is that of the assertion stated.

7. (A) In case of death due to Cholera cooling will be rapid for the first two hours after death

(R) Postmortem calorificity is due to the continuing action of the micro-organisms in the body tissue and fluids.

- a) Both Assertion and Reason are incorrect.
- b) Assertion is correct and Reason is incorrect.
- c) Assertion is incorrect and Reason is correct.
- d) Both Assertion and Reason are correct but the reason given is not that of the assertion stated.
- e) Both Assertion and Reason are correct and the reason given is that of the assertion stated.

8. A) In an incised wound, the cut will be shallow in the beginning which is known as tailing of the wound and it is medico legally important as

(R) It indicates the direction of the cut.

- a) Both Assertion and Reason are incorrect.
- b) Assertion is correct and Reason is incorrect.
- c) Assertion is incorrect and Reason is correct. *
- d) Both Assertion and Reason are correct but the reason given is not that of the assertion stated.
- e) Both Assertion and Reason are correct and the reason given is that of the assertion stated.

9. (A) Secondary markings on the crime bullet will be beneficial in the identification of the crime weapon

(R) As secondary markings that are specific for that particular weapon

- a) Both Assertion and Reason are incorrect.
- b) Assertion is correct and Reason is incorrect.
- c) Assertion is incorrect and Reason is correct.
- d) Both Assertion and Reason are correct but the reason given is not that of the assertion stated.
- e) Both Assertion and Reason are correct and the reason given is that of the assertion stated.

ANSWERS

1. (a) & (b)
2. (a), (c) & (d)
3. (a), (b), (c)
4. (a), (c), (d)
5. (b), (d)
6. (b)
7. (d)
8. (c)
9. (d)

1. (A) Running amok is the condition in which the addict becomes excited, delirious and develops homicidal mania
 (R) It is due to long-continued use of cocaine and LSD
 a) Both Assertion and Reason are incorrect.
 b) Assertion is correct and Reason is incorrect.
 c) Both Assertion and Reason are correct but the reason given is not that of the assertion stated.
 d) Assertion is incorrect and Reason is correct.
 e) Both Assertion and Reason are correct and the reason given is that of the assertion stated.

Clinical Based Scenario

A 32-year-old woman is admitted to the hospital after, being involved in a high-speed car accident. She was the front-seat passenger in a vehicle that collided with a large tree after swerving off the road. Upon examination in the emergency department, imaging reveals a fractured sternum, several fractured ribs on the left side, fracture of tibia, and internal bleeding in the abdominal cavity, and there are abrasions on her forehead and cheek. The patient also has multiple contusions on her arms and legs. following?

2. The pattern of bruising across the chest and the presence of a fractured sternum are most likely indicative of which of the
 a) Airbag deployment impact
 b) Steering wheel injury
 c) Secondary impact with the dashboard
 d) Compressive force from vehicle roof collapse
 e) Seatbelt restraint injury

3. Internal bleeding in the abdominal cavity after a high-speed collision commonly suggests damage to which of the following organs?
 a) Heart
 b) Kidneys
 c) Lungs
 d) Liver and spleen
 e) Bladder
 a) Brain hemorrhage

4. Fractured ribs are significant because they can most commonly lead to which of the following fatal complications?
 a) Cardiac tamponade
 b) Pulmonary embolism
 c) Pneumothorax or hemothorax
 d) Stroke

5. The bruising and abrasions on the patient's face, particularly over the forehead and cheek, could indicate that:
 a) She was wearing a helmet at the time of the collision
 b) She experienced direct impact with the windshield or side window
 c) She was seated in the rear of the vehicle
 d) She has a pre-existing bleeding disorder
 e) She experienced only minor injury without risk of concussion

6. In cases of blunt force trauma such as this, what's your chief role as a doctor in investigating the injury distribution/pattern:
 a) Whether the patient was conscious and oriented at the time of the impact
 b) If the injuries are consistent with the described mechanism of the crash
 c) To prove the patient was seated in the driver's position instead
 d) The specific type of vehicle involved in the crash
 e) To collect the patient's history of previous accidents

ANSWERS

1. (b)
 2. (c)
 3. (d)
 4. (d)
 5. (b)
 6. (b)

Single Response type questions

1. A police can arrest a person without warrant in a
a) Cognizable offence b) Non-Cognizable offence
c) Summons case d) Warrant case.
2. Casper's dictum helps in the determination of
a) Growth of fetus b) Hair growth c) Rate of cooling d) Rate of putrefaction
3. Which of the following tests is used to detect Semen
a) Marsh test b) Phenolphthalein test c) Paraffin test d) Barberio's test
4. Percolation of blood to the lateral aspect of head behind the ear due to middle cranial fossa fracture is called
a) Grey Turner's sign
h) Battle's sign
c) Raccoon's sign d) Cullen sign
5. Lucid interval is seen in ----
---and is associated usually with fracture of skull
a) Intracerebral haemorrhage b) Subdural haemorrhage c) Subarachnoid haemorrhage
d) Extra dural haemorrhage

Multiple response type questions. Read the statements and mark the TRUE statements

- a. 1,2,3
- b. 1, 3, 4
- c. 1,2,4
- d. 2,3

6. Findings seen in death due to starvation

- i) Brown atrophy of heart
- ii) raised intracranial tension
- iii) 0-12 days is the latent period
- iv) Buccal fat is last to disappear

7. True about Delirium tremens

- i) caused due to deficiency of thiamine
- ii) fracture can precipitate delirium tremens
- iii) diazepam is used for treating agitation
- iv) individual is criminally responsible

8. Causes of Crush syndrome

- i) Electrocution
- ii) Seizure episode
- iii) Muscle injury
- iv) Spinal-cord injury

9. The following causes both physical and psychological dependence

- i) Alcohol
- ii) Morphine
- iii) LSD
- iv) Barbiturate

10. True for informed consent

- i) Age of consent in surgery is 18 years ii) Not required for person under arrest as per 53 CrPC
- li) Mental capacity is not considered tv) Consent not required for emergency case

ANSWERS

1. (a)

2. (d)

3. (d)

4. (b)

5. (d)

6. (c)

7. (d)

8. (b)

9. (c)

10. (c)

case scenario-based questions :

A 75 year old lady was brought dead and sent for autopsy . On examination there was a rope seen tied around the upper part of neck with a slip knot on the left side. Petechial hemorrhages present in subconjunctival area. Salivary dribbling mark present on right angle of mouth downwards. Postmortem staining was present as glove and stocking pattern and on back of chest; fixed. Greenish discoloration was present on the right iliac fossa.

1. What would be the most probable cause of death?

- i. Hanging
- ii) Ligature strangulation
- iii) Throttling iv) Choking

2. Which test is used to confirm that the victim had handled the ligature material ?

- i) Hydrostatic test ii) Cellophane test iii) Wood's lamp test iv) UV rays test

3. What does the petechial haemorrhage in conjunctiva refer to?

- i) Ecchymotic spot ii) Tardieu spots
- iii) Sheehan's hemorrhages
- iv) Paltauf's haemorrhage

4. What would be the approximate time since death is more than -----hours

- i) 12
- ii) 16
- iii) 18
- iv) 24

5. What would be the possible internal neck findings ?

- i) Pallor in subcutaneous tissue under the ligature mark ii) fracture of racheal rings
- ii) Bruise on root of neck
- iv) contusions on thyroid gland

Assertion (A) and Reason (R).

Answer these questions by selecting the appropriate options given below.

(a) Both A and R are correct and R is the Reason for A

(b) Both A and R are correct and R is NOT the Reason for A

(c) A is correct, But R is incorrect

(d) A is incorrect, But R is correct

6.

A: CO poisoning causes cherry red discolouration of skin.

R : CO has higher affinity for Hb than oxygen and leads to the production of CO Hb.

7.

A: Organophosphate poisoning is treated with atropine and pralidoxime

R: Organophosphate inhibits acetylcholinesterase, leading to an accumulation of acetylcholine

8.

A:

The lethal dose of alcohol depends on body weight and tolerance

R : Alcohol is metabolised by the liver at a constant rate, regardless of the amount of alcohol ingested.

9.

A:

Naloxone is an effective antidote for heroin overdose

R;

Naloxone is an opioid antagonist that displaces heroin from opioid receptors.

10.

A: "Actus reus" refers to the mental state of a defendant

R: "Mens rea" is a legal term meaning "guilty mind" which is important in determining criminal intent

ANSWERS

1. (i)

2. (iii)

3. (ii)

4. (iv)

5. (i)

6. (a)

7. (a)

8. (c)

9. (a)

10. (d)

Single response questions[1x5 =5 marks]

1- Ischiopubic index is

- a) $(\text{Length of pubis} / \text{length of ischium}) \times 100$
- b. $(\text{Length of ischium} / \text{length of pubis}) \times 100$
- C. $(\text{Breadth of ischium} / \text{Breadth of pubis}) \times 100$
- D. $\text{Breadth of pubis} / \text{Breadth of pubis}) \times 100$

2- On postmortem Examination the method of removal of individual organs one by one is called

- ☐ a) Letulles Method
- ☐ b) Virshows method
- ☐ c) Ghons Method
- ☐ d) Rokitanskys Method

3- Calibre of a rifled firearm is

- ☐ a) Maximum distance between two grooves
- ☐ b) Maximum distance between two lands
- ☐ c) Minimum distance between two grooves
- ☐ d) Minimum distance between two lands

4- Fixed and false belief caused by a mental disease, which cannot be changed by any amount of logical argument or evidence to the contrary is called

- ☐ a) Illusion
- ☐ b) Delusion
- ☐ c) Hallucination
- ☐ d) Delirium

5- Burtonian lines seen in which metal poisoning ?

- ☐ a) Mercury
- ☐ b) Copper
- ☐ c) Lead
- ☐ d) Antimony

V. Multiple response questions

6- A polygraph (lie detector) is a device which makes a continuous record of several physiological variables such as:

- a. blood pressure and heart rate
- b. Electro dermal reaction
- c. Electroencephalographic response
- d. Respiratory rhythm

7- "Waddell's triad- is a classic pattern of injury seen in pedestrian children who are struck by motor vehicles. It comprises of:

- ☐ a) Fractured femoral shaft.
- ☐ b) Ipsilateral head injury.
- ☐ c) Intra thoracic or Intra abdominal injuries.
- ☐ d) Contralateral head injury

8- Features suggestive of antemortem burns are:

- ☐ a) Soot particles in upper respiratory tract.
- ☐ b) Mucus secretions in air passages
- ☐ c) Absence of vital reaction.
- ☐ d) Blisters contains air and thin clear fluid.

9- The characteristic features seen in rifle firearm entry wound at close range (<8cm)

- ☐ a) Presence of muzzle impression
- ☐ b) Presence of burning.
- ☐ c) Absence of tattooing
- ☐ d) Presence of abrasion collar and égrease collar.

10- Snakes are elongated, imbless reptile of the suborder serpentes. Viper shows the following features.

- ☐ a) Flat triangular head with distinct 'V' mark and small scales.
- ☐ b) Elongated tail and tapers gradually.
- ☐ c) Venom is predominantly hemotoxic
- ☐ d) The fangs are canalized

ANSWERS

1. (a)
2. (b)
3. (d)
4. (b)
5. (c)
6. (a), (b), (d)
7. (a), (c), (d)
8. (a), (b)
9. (a), (b), (d)
10. (a), (c), (d)

Assertion-Reasoning type

1. Assertion: Rigor mortis sets in soon after death, within half an hour to 1 hour and persists for about 12-24 hours.

Reason: The biochemical processes of rigor mortis are due to the depletion of ATP in muscle cells, leading to muscle contracture and rigidity.

- (a) Both Assertion (A) and Reason (R) are true and Reason (R) is a correct explanation of Assertion (A).
(b) Both Assertion (A) and Reason (R) are true but Reason (R) is not a correct explanation of Assertion (A).
(c) Assertion (A) is true and Reason (R) is false.
(d) Assertion (A) is false and Reason (R) is true.

2. Assertion: The presence of petechial hemorrhages is strongly suggestive of leprosy death.

Reason: Petechial hemorrhages occur due to increased pressure in the blood vessels, typically in cases of asphyxia, including strangulation or hanging.

- (a) Both Assertion (A) and Reason (R) are true and Reason (R) is a correct explanation of Assertion (A).
(b) Both Assertion (A) and Reason (R) are true but Reason (R) is not a correct explanation of Assertion (A).
(c) Assertion (A) is true and Reason (R) is false.
(d) Assertion (A) is false and Reason (R) is true.

3. Assertion: A well-defined, circular wound with a central hole, surrounded by a ring of abrasion characteristic of a gunshot entry wound at close range.

Reason: The abrasion ring around a gunshot wound is caused by the wadding from the cartridge exits the barrel.

- (a) Both Assertion (A) and Reason (R) are true and Reason (R) is a correct explanation of Assertion (A).
(b) Both Assertion (A) and Reason (R) are true but Reason (R) is not a correct explanation of Assertion (A).
(c) Assertion (A) is true and Reason (R) is false.
(d) Assertion (A) is false and Reason (R) is true.

4. Assertion: The pathologist should always ensure that a body from a traffic accident is brought to the mortuary with clothing intact.

Reason: The clothing may contain vital evidence such as blood stains, damage or gunshot

5. Assertion: Near drowning refers to a submersion victim who is resuscitated and survives for 24 hrs. residues.

Reason: The person may or may not be conscious

VI. Clinical Scenario Based MCQ

A 22 year old female, recently married sustained burns caused by a flame at her residence and was brought to the emergency department. She was under treatment for the last 2 days and her condition worsened.

6. Who can record dying declaration ?

- ☐ Judicial magistrate
☐ Police Officer
☐ Public servant
☒ All the above

7. Dying declaration is a

- ☐ Circumstantial evidence
☒ Oral Evidence
☐ Documentary evidence
☐ Hearing evidence

8. Magistrate inquest is held under

- ☐ BNSS 194
☒ BNSS 196
☐ BNS 80
☐ BNS 106

9. Percentage of surface area of palm of a burn patient

1%, 9%, 18%, 27%

10. Best fluid for resuscitation in burns

- ☐ Dextran
☒ Ringer lactate
☐ Albumin
☐ Hartman's Solution

ANSWERS

1. (d)
2. (d)
3. (c)
4. Both assertion & reason true and correct explanation
5. Both are correct but not correct explanation
6. (a)
7. (c)
8. (b)
9. 1%
10. (b)

1. True about Magistrate Inquest
 - a. Inferior to police inquest
 - b. Done in presence of police
 - c. Section 196 BNSS Describes the Procedure
 - d. Not done during exhumation

2. The aims and objectives of Medico legal Autopsy include all except.
 - a. To determine the cause of death.
 - b. To determine the manner of death
 - c. To establish the identity of the perpetrator.
 - d. To estimate the postmortem interval.

3. Gunshot Residue (GSR) can be detected by
 - a. Benzedrine test
 - b. Dermal Nitrate test
 - c. Hydrogen activation analysis
 - d. Phenolphthalein test

4. Sex of an individual can be estimated using the following STR loci.
 - a. Amelogenin (AMEL)
 - b. Thyroid Peroxidase (TPOX)
 - c. Tyrosine hydroxylase (TH01)
 - d. Von Willibrand Factor (vWA)

5. Presumptive tests for seminal fluid are based on detection of enzyme activity of.
 - a. Superoxide dismutase
 - b. Glutathione reductase
 - c. Glutathione peroxidase
 - d. Acid phosphatase

Multiple response type

6. Which of the following statement about postmortem calorificity are true

1. It results from chemical reactions after death
 2. It reliably estimates exact time of death.
 3. It is absent in cases of trauma
 4. The body temperature rises above the surrounding environment
- a. 1,2,3
 - b. 1,3,4
 - c. 1,2,4
 - d. All are correct

7. Read the following statements with respect to pedestrian injury in a road traffic accident and choose the correct statements

1. They are more likely to suffer head and chest injuries
2. The severity of injuries depends only on the speed of the vehicle
3. The risk of injury is greater when struck from the front
4. Injuries are more when they are thrown on the road after impact

- a. 1,2,4
- b. 1,3,4
- c. 2,3,4
- d. All are correct

8. Regarding criminal abortion, which statements are true

1. Often lead to infections like septicemia or peritonitis
 2. Legal abortions have higher risk of complications than criminal abortions
 3. Complications include uterine perforation and hemorrhage
 4. Women who undergo criminal abortion are at higher risk of infertility
- a. 1,3
 - b. 2,4
 - c. 1,3,4
 - d. All are correct.

9. Which among the following are positive signs of pregnancy.

1. Fetal heart sounds
 2. Enlarged uterus
 3. Morning sickness
 4. Fetal movements by examiner
- a. 1,2
 - b. 2,3
 - c. 1,2,4
 - d. 1,4

ANSWERS

1. (C)

2. (C)

3. (b)

4. (a)

5. (d)

6. (b)

7. (b)

8. (c)

9. (d)

1. Which of the following are considered in the differential diagnosis of alcoholism

1. Hypoglycemia
2. Bipolar disorder
3. Liver cirrhosis
4. Vitamin B12 deficiency
5. Delirium Tremens

1,24

1,2,5

2,3,4,5.

All are correct

Case based MCQ

Wayanad in Kerala witnessed India's worst landslide. The scale of destruction was unimaginable with 231 people confirmed dead while body parts of 218 others have been recovered.

1. In a mass disaster like a landslide, what is the primary forensic Priority.

- a. Estimation of time of death
- b. Determination of cause of death
- c. Collecting evidence for criminal investigation
- d. Disaster victim identification (DVI)

2. In decomposed dead body which among the following would you preserve and send for DNA fingerprinting.

- a. Blood
- b. Bone
- c. Saliva
- d. Vitreous fluid

3. What is the preservative used for bone sample preserved for DNA fingerprinting.

- a. Formalin
- b. NaCl crystals
- c. Saturated saline solution
- d. Rectified spirit

4. What is the most common postmortem finding in victims of land slide_

- a. Positional asphyxia.
- b. Cherry red discoloration of skin and blood
- c. Dehydration and emaciation.
- d. Fractures with extensive soft tissue injuries

5. Some bones are recovered from the landslide site, which formula will you use for estimation of stature.

- a. Karl Pearson Formula
- b. Gustafson's Formula
- c. Pillai- Bhasker Formula
- d. Young's Formula

Assertion Reason type

1. Assertion: A person with mental illness who commits an offence is automatically exempt from criminal liability.

Reason: Section 22 of BNS describes the criminal responsibility of a Person with mental illness

Both A & R are true, and R is correct explanation of A.

Both A & R are true, and R is not the correct explanation of A.

A is false but R is true.

Both A & R are false.

2. Assertion: Sexual Paraphilias are considered mental disorders only if they cause distress to individuals or harm to others

Reason: The DSM-5 distinguishes between paraphilias and Paraphilic disorders, defining the latter as a condition that involves personal risk and risk of harm to others.

Both A & R are true, and R is correct explanation of A.

Both A & R are true, and R is not the correct explanation of A.

A is false but R is true.

Both A & R are false.

ANSWERS

1. (d)
2. (d)
3. (b)
4. (d)
5. (a)
6. (c)
7. (c)
8. (a)

1. Assertion: Torture can be legally used in some jurisdictions during counter terrorism operations
Reason: Domestic laws can override international treaties in extraordinary cases.

Both A & R are true, and R is correct explanation of A.
Both A & R are true, and R is not the correct explanation of A.
A is false but R is true.
Both A & R are false

2. Assertion: A linear skull fracture always results in significant intra cranial hemorrhage.
Reason: Intra cranial hemorrhage can occur due to vascular damage caused by trauma, even in absence of skull fractures
Both A & R are true, and R is correct explanation of A.
Both A & R are true, and R is not the correct explanation of A
A is false but R is true
Both A & R are false

3. Assertion: Drug dependence is diagnosed solely based on the presence of withdrawal symptoms when the substance is discontinued
Reason: the criteria for diagnosing drug dependence include tolerance, withdrawal symptoms, loss of control over use and continued use despite harm.
Both A & R are true, and R is correct explanation of A.
Both A & R are true, and R is not the correct explanation of A.
A is false but R is true.
Both A & R are false.

IV. MULTIPLE CHOICE QUESTION

4. The most reliable dental change used in Gustafson's method?

- a) Attrition b) Cementum
- c) Secondary dentine deposition d) Transparency of root

5. Paltauf's hemorrhages are seen in

- a) brain b) lungs
- c) heart d) liver

6. Most common cause of first trimester abortion is

- a) chromosomal defect
- b) Endocrine disturbance
- c) Anatomical abnormality of uterus d) Infections

7. Delusion is a disorder of

- a) thought b) perception
- c) insight d) cognition

8. Professional death sentence is

- a) imprisonment for life
- b) rigorous imprisonment
- c) erasing name from medical register
- d) death by hanging

V. ASSERTION REASON TYPE QUESTION

9. Assertion (A) : Virtopsy is a minimally invasive procedure done to find the cause of death
Reasoning (R) : It utilizes CT, MRI and reconstruction techniques to get a reliable finding
a) Both A and R are true and R is a correct explanation of A
b) Both A and R are true but R is not a correct explanation of A
c) A is true and R is false
d) A is false and R is true

10. Assertion (A) : Adipocere is a modification of putrefaction
Reasoning (R) : Hot and dry environment favors adipocere formation
a) Both A and R are true and R is a correct explanation of A
b) Both A and R are true but R is not a correct explanation of A
A is true and R is false
d) A is false and R is true

ANSWERS

1. (c)

2. (c)

3. (c)

4. (d)

5. (b)

6. (a)

7. (a)

8. (c)

9. (a)

10. (c)

1. Assertion(A) :In partial hanging lower part of body is touching the ground
Reasoning (R) :Only a part of weight of their body is acting as constriction force
a) Both A and R are true and R is a correct explanation of A
b) Both A and R are true but R is not a correct explanation of A
c) A is true and R is false
d) A is false and R is true

2. Assertion(A) :Erotomania is a delusion
Reasoning (R):Delusion is a false fixed belief that cannot be corrected
a) Both A and R are true and R is a correct explanation of A
b) Both A and R are true but R is not a correct explanation of A
c) A is true and R is false
d) A is false and R is true

3. Assertion (A) : Postmortem staining is the color seen on dependent parts after death
Reasoning (R) : It is due to the depletion of ATP
a) Both A and R are true and R is a correct explanation of A
b) Both A and R are true but R is not a correct explanation of A
c) A is true and R is false
d) A is false R is true

4. Rajesh, a 40-year-old male is under a false belief that his wife is not faithful towards him. Even after multiple attempts from the relatives and wife, he still doesn't believe his wife.
a) What is the probable diagnosis?
b) What is delusion of grandeur?
c) What is hallucination?
d) What is illusion?
e) What is lucid interval?

Single response type

5. Undertaker's fracture due to falling of head (backwards) occurs at
L5 S1.
T12 L1.
C6
C7.

6. Heat stiffening starts to occur when body exposed to temperature above
a) 45°C.
b) 55° C.
c) 65°C.
d) 75°C

7. All are the components of Black gun powder except
a) Charcoal.
b) Lead peroxide.
c) Potassium nitrate.
d) Sulphur.

8. Human experimentation is carried out following.
a) Declaration of Oslo
b) Declaration of Helsinki.
c) Declaration of Tokyo.
d) Geneva convention.

9. Overlying is a type of
a) Strangulation
b) Smothering
c) Throttling
d) Lynching

ANSWERS

1. (a)

2. (a)

3. (c)

4. (a) Othello syndrome (Delusional jealousy)

(b) False belief of possessing great importance, wealth or power.

(c) perception without external stimulus (eg. hearing voices when no one around)

(d) Misinterpretation of real external stimuli

(e) A temporary period of normal mental functioning after a brain injury

5. C₆-C₇

6. (b)

7. (b)

8. (b)

9. (b)

Multiple response type questions.

1. Diagnosis of brain death dependent upon

1. Dilated and fixed pupil.
2. No spontaneous breathing.
3. Cessation of cardiac contraction.
4. Flat EEG.

c. 1, 2, 4

a. 1&2 'b. 1&3 c. 1&4 d. 2 only

2. Bevelled cut refers to.

1. Flap wound.
2. Irregular margins.
3. One margin undermined
4. Overhang margin.

a. 1,2& 3. b. 1&4. .c. 3 only d. 2only

3. Radiological signs of fetal deaths includes all except.

1. Overlapping of skull bones
2. Hyperextension of spine.
3. Collapse of spinal column.
4. Gas in aorta

a. 2 only. b.2&3. c.3&4 d.4only.

4. Gun shot residues in the hands can be detected by.

1. phenolphthalein test.
2. Benzidine test.
3. Hydrogen activation analysis
4. Dermal nitrate test.

a. 1&3: b.3 only. c.3 &4 .d. 4 only.

5. Earliest sign of death is.

1. Corneal clouding.
2. Loss of skin elasticity
3. Postmortem lividity.
4. Cooling of body.
5. Coroner's inquest.

a. 1 only. b. 2only..c. Both 1& 2 are correct d. Both 1 & 4 are correct

Case scenario

6. A 25 year old lady was brought to hospital emergency with a complaint of vaginal bleeding which had been going for the last 2 days and was declared brought dead. On further probing, it was found that she was pregnant and had undergone termination of pregnancy in her village which was done by a quack.

- a) Give any two differences between natural and criminal abortion.
- b) Classify abortifacient drugs with examples (1mark).
(1 mark)
- c) Describe the post mortem findings in case of criminal abortion (2 marks).
- d) What are the qualifications of medical practitioner who can terminate the pregnancy as per MTP act. (1 mark)

ANSWERS

1. (C)

2. (A)

3. (b)

4. (C)

5. (d)

6. (a) Natural abortion - Happens spontaneously due to natural causes like genetic defect, hormonal imbalance, or infections.

Criminal abortion - Induced illegally using unsafe methods and often results in complications like sepsis or uterine rupture

(b)

↓
Mechanical abortifacients
uterine dilators
Foreign bodies

↓
Chemical abortifacients
oxytocics
ergot alkaloids

(c) PM findings -

1. Injuries to uterus
2. Septicemia signs such as purulent infections
3. Retained products of conception
4. Evidence of mechanical interference

(d) Qualifications of medical practitioner.

An RMP with min. 1 yr of training in obs and gynec

or practised in OBG for atleast 3 yrs in hospital.

Assertion Reason type

- a. Both A & R are correct; R is the correct explanation of A.
- b. Both A & R are correct; R is not the correct explanation of A
- c. A is correct; R is incorrect.
- d. A is incorrect; R is correct.

1. A: Aluminium phosphide is considered as an ideal suicidal poison

R: It is highly toxic, cheap, easily available, can taken along with food items & has no effective antidots.

2. A: Smelter's shake occurs due to chronic inhalation of fluorinated polymers and other compounds, which leads to chills & fever.

R: Most common metal indicated in metal fume fever is Zinc.

3. A: Dicing injuries are superficial cuts of the skin caused by the fragments of tempered glass.

R: Such injuries help to locate the position occupied by the victim in the automobile

4. A: Widmark's formula is used to estimate blood alcohol concentration.

R: Chemical tests for BAC depends on reduction of dichromate / sulphuric acid by alcohol vapour

5. A: Schedule H contains various poisons and their regulations and can only be supplied by licensed parties.

R: It must display the texts " Rx" and "Schedule H drug warning " prominently.

single response type questions:

6. The chief gas that is formed during decomposition is:

- (a) Hydrogen sulphide (b) Methane (c) Ammonia (d) Ethane

7. Preauricular sulcus helps in the detection of:

- (a) Age (b) Sex (c) Race (d) Height

8. Triad of alopecia, neuropathy and diarrhea results from poisoning due to:

- (a) Thallium (b) Datura (c) Opium (d) Mercury

9. Lynching is:

- (a) Accidental hanging (b) Accidental drowning (c) Homicidal drowning
- (d) Homicidal hanging

10. The lowest court that can give death sentence to an accused is:

- (a) Chief Judicial Magistrate Court (b) Additional Sessions Court (c) High Court
- (d) Supreme Court

case scenario- based questions:

A 21 year old married woman was found hanging in her bedroom. The knot of the ligature material was present on left subaural position.

At autopsy, face was cyanosed with protrusion of tongue. Dried salivary dribble marks were seen on the right angle of mouth. There was an oblique ligature mark on the front of neck above level of thyroid cartilage with discontinuity at back of neck. An opinion as to cause of death of antemortem hanging was made

11. The inquest in this case is done according to _ section

- (a) 176 BNSS (b) 196 BNS (c) 196 BNSS (d) 176 BNS

12. The classification of hanging in this case is:

- (a) Typical hanging (b) Atypical hanging (c) Complete hanging (d) Incomplete hanging

13. The factors which influence the appearance of ligature mark include all except: suspension

- (a) Ligature material (b) Period of suspension (c) Slipping of ligature during (d) Age of the person

14. All of the following are signs of antemortem hanging () except:

Dribbling of saliva

Signs of struggle

Le facic sympathique

Oblique ligature mark

15. Mechanism of death due to hanging includes

- (a) Venous congestion (b) Cerebral ischemia (c) Asphyxia (d) Subarachnoid hemorrhage

ANSWERS .

1. (a)

2. (d)

3. (b)

4. (a)

5. (a)

6. (a)

7. (b)

8. (a)

9. (d)

10. (b)

11. (a)

12. (b)

13. (d)

14. (c)

15. (c)

Assertion (A) and Reason (R).

1. A: Ecobolics are used as abortifacient drugs

R: They increase the menstrual blood flow

(a) Both A and R are true, and R is the reason for A

(b) Both A and R are true, and R is not the reason for A

(c) A is correct but R is incorrect

(d) A is incorrect but R is correct

2. A: Depressed comminuted are sometimes called signature fracture.

R: The shape of the fracture often points towards the shape of the offending weapon:

(a) Both A and R are true, and R is the reason for A

(b) Both A and R are true, and R is not the reason for-A

(c) A is correct but R is incorrect

(d) A is incorrect but R is correct

3. A: The active principle of cerbera odollam is thevetin

R: Cerbera odollam is a cardiac poison

(a) Both A and R are true, and R is the reason for A

(b) Both A and R are true, and R is not the reason for A

(c) A is correct but R is incorrect

(d) A is incorrect but R is correct

4. A: Narco-analysis is a scientific procedure to obtain information from an individual in a natural sleep like state

R: Thiopentone sodium is used which is known as "truth serum"

(a) Both A and R are true, and R is the reason for A

(b) Both A and R are true, and R is not the reason for A

(c) A is correct but R is incorrect

(d) A is incorrect but R is correct

5. A: Dermal nitrate test is a test for detection of gunshot residues

R: It is an obsolete and non specific test.

(a) Both A and R are true, and R is the reason for A

(b) Both A and R are true, and R is not the reason for A

(c) A is correct but R is incorrect

(d) A is incorrect but R is correct

ANSWERS .

multiple response type questions.

6. Which of the following statement/s is /are true about pathological autopsy?

i. it is done in natural deaths

ii. Body handed over to relatives

iii. Done to determine the time since death

iv. Consent from next of kin is required

@) iii, ii

~~(b) i, iii, iv~~ b. i, ii, iv

(c) i, i, iv

(d) ii iii

7. Which of the following Statement/S IS are true about Joule burn?

i. Specific and diagnostic of electric burns

ii. Commonly found On exposed parts of the body

iii Microscopically, epidermis shows Swiss cheese appearance

iv. Also called exogenous burns

a) i, ii, iii

(b) iii, iv

(c) i, ii, iv

(d) ii, iii

8. Which of the followings statement/s is are true about pregnancy?

i. Quickening IS a positive sign of pregnancy

ii. Fetal heart sound may not be audible in obese mothers

iii. Deuel's halo sign is a radiological sign of fetal death

iv. Helix sign is the presence of gas in the heart and great vessels

-(a) i, ii, iii

(b) i, iii, iv

(c) i, ii, iv

(d) ii, iii

1. (b)

2. (b)

3. (a)

4. (a)

5. (a)

6. (b)

7. (c)

8. (c)

1. True about erectile dysfunction is/are
- Maldevelopment of penis is a cause
 - Chronic alcoholism does not affect this
 - The civil court may call upon a doctor to determine this in suits of rape
 - Temporary erectile dysfunction may result from fear
- (a) i, ii
(b) i, ii, iv
(c) i, iv
(d) i, iii

2. Which of the following statement/s is /are true about chronic starvation?
- Complete atrophy of thymus is pathognomonic
 - Brain does not show severe atrophy
 - Skin is pale
 - The small intestinal wall appear shrunken with greenish discoloured mucosa
- a) i, ii
b) i, iii, iv
c) i, iv
d) i, ii

case scenario-based questions.

A dead body recovered from water showed soddening and wrinkling of skin of palms and soles. Lungs were voluminous, crepitant and edematous, fine sand particles in the distal air passages.

3. The postmortem appearance of lungs in a typical case of drowning is known as:
- Edema aquosum
 - Emphysema aqueosum
 - Hydrostatic lung
 - Wet lungs

4. Diatoms are
- Fungi
 - Protozoa
 - Algae
 - Bacteria

5. Pick out the incorrect statement with regard to washerwomen's hand from the following
- Washerwomen's hand is a confirmatory sign of drowning
 - It is due to imbibition of water into the skin
 - Sign of submersion in water
 - Can be seen in postmortem drowning

6. Presence of water in sphenoid air sinus in drowning
- Tardieu sign
 - Sehrts sign
 - Sveshnikov sign
 - Cullens sign

7. Gettler's test determines variation in the following electrolytes
- Sodium
 - Strontium
 - Magnesium
 - Chloride

Assertion (A) and Reason

- Both A and R are true. R is the correct explanation of A
- Both A and R are true. R is not the correct explanation of A
- A is true but R is false
- A is false but R is true

8. A: Gastric lavage is not indicated in kerosene poisoning
R: It can lead to aspiration

9. A: Vaginal swabs and smears are not collected after 7 days
R: It is unnecessarily traumatizing the victim

ANSWERS

1. (c)
2. (b)
3. (b)
4. (c)
5. (a)
6. (b)
7. (d)
8. (a)
9. (c)

1. A: Consent is always required for medicolegal examination of accused in sexual crimes

R: Law permits such examination even without consent

2. A: Interrogation in head injury patients is not advisable

R: Head injury can lead to brain edema

3. Marbling is a decomposition change

R: It is due to formation of reduced hemoglobin

multiple response type questions

4. Which of the following clauses fall under grievous hurt

1. Fracture or dislocation of a bone or tooth
 2. Permanent privation of hearing of both ears
 3. Emasculation
 4. Disfiguration of head or face
- a) 1 and 3 are correct
b) 1, 2 and 3 are correct
c) 1, 2 and 4 are correct
d) 2 and 4 are correct

5. In Gustafson's method

1. Transparency is the most reliable criteria
 2. Ideal tooth is first premolar
 3. Parodontosis can only be determined before extracting the teeth
 4. Used for age determination
- a) 1 and 2 are correct
b) 1, 2 and 3 are correct
c) 1, 2 and 4 are correct
d) 1, 3 and 4 are correct

6. Which of the following statements about joule burns are correct

1. Joule burn is an endogenous burn
 2. It is seen at the exit of the current
 3. Palisading effect is a microscopic finding
 4. Also known as filigree burns
- a) 1 and 3 are correct
b) 2, 3 and 4 are correct
c) 1, 2 and 4 are correct
d) 2 and 3 are correct

ANSWERS

1. A is true, R false

2. Both are true and R explains A

3. Both are true and R explains A

4. (b)

5. (c)

6. (b)

1. Cerbera Odollam poisoning
 1. Neurotoxic poison
 2. Produce cardiac arrhythmia
 3. Has got digoxin like effect
 4. Amyl nitrate is the antidote
 - a) 1, 2 and 3 are correct
 - b) 2 and 3 are correct
 - c) 3 and 4 are correct
 - d) 2, 3 and 4 are correct
2. The following statements regarding delusion are correct
 1. It is a false sense of perception without any stimulus
 2. It is a false sense of perception with stimulus
 3. Disorder of thought
 4. Person having delusion is not criminally responsible
 - a) 1, 2 and 3 are correct
 - b) 1 and 3 are correct
 - c) 2, 3 and 4 are correct
 - d) 3 and 4 are correct

single response type questions.
3. Whiplash injury is due to
 - a) Injury to Aorta
 - Abdominal trauma
 - Fracture dislocation of the spine
 - d) Multiple rib fracture
4. Homicidal hanging is called as
 - a) Garotting
 - Mugging
 - Lynching
 - Bansdola
5. Spermatozoa is detected by
 - a) Benzidine test
 - "b) Hemin crystal test
 - Takayama test
 - d) Barberio's test
6. Last organ to putrefy is:
 - Kidney
 - Uterus
 - Brain
 - Spleen
7. In starvation death, atrophy is seen in all except:
 - Heart
 - Kidney
 - Liver
 - Brain

ANSWERS

1. (b)

2. (d)

3. (c)

4. (c)

5. (d)

6. (b)

7. (d)

1. Florence test is used to test.

Fecal-Stain
Vaginal Fluid
Blood stains
Seminal stains

2. An irresistible desire to do something without any provocation is called

A) Impulse
B) Circumstantiality
C) Abreaction
D) Delirium

MCQ (MULTIPLE RESPONSE TYPE) 25-29]

3. Which of the following statements about DNA profiling are true, select all that apply?

It is a reliable method for establishing identity
It can only be performed on fresh samples
It can be used in paternity testing
It requires a large amount of biological material

A) i, iv
B) i, ii, iv
C) i, iii, iv
D) i, iii

4. Which of the following statements about informed consent are true?

Patient must be provided with all relevant information
Patient has the right to withdraw consent at any time
Can treat without informed consent in emergency situation
Informed consent can be obtained forcefully

A) i, ii
B) ii, iii
C) i, ii, iii
D) iv only

5. Perjury is:

Intentionally giving false evidence by witness while under oath.

Section 191 IPC

Failure to tell what he knows or believes.

Speaking just opposite to what he stated earlier

A) i, ii, iii, iv
B) i, ii
C) ii, iii
D) i, ii, iii

6. Which of the following statements are true about postmortem hypostasis

Seen on dependent portions only
Changes position when it is not fixed
There will be collection of blood
Margins merge with surrounding area

A) i, ii, iii
B) iii, iv
C) ii, iii, iv
D) i, ii

7. Which of the following statements are true regarding Barr body?

Seen in polymorphs
Drum stick structure
Plano Convex mass beneath nuclear membrane
It's inactivated X Chromosome

A) iii, iv
B) i, ii
C) ii, iii
D) i, ii, iii

ANSWERS

1. (d)

2. (a)

3. (c)

4. (c)

5. (b)

6. (a)

7. (b)

ASSERTION (A) AND REASON (R) Answer these questions by selecting the appropriate options given below:

- A) Both A and R are true and R is the correct explanation of A
B) Both A and R are true But R is not the correct explanation of A
C) A is true but R is false
D) A is false but R is true

1. A - Close range gunshot wound shows tattooing around the entry site.

R - Tattooing occurs due to unburnt gun powder particles embedding in to the skin at close range.

2. A - Methanol poisoning can cause blindness

R - Methanol is metabolized in liver to formaldehyde and formic acid which are toxic to optic nerve

3. A - Ectopic contusions are commonly seen at sites distant from the point of impact

R - Ectopic contusions are due to bleeding disorders

4. A - Whiplash injury commonly results in neck pain and stiffness

R - Whiplash injury is caused by the sudden hyperextension and hyper flexion of neck, leading to strain/ damage of neck muscles and ligament.

5. A - Café coronary is a condition that occurs when a person chokes on food, leading to sudden collapse

R - Café coronary is primarily caused by an allergic reaction to food which triggers airway obstruction.

MULTIPLE CHOICE QUESTIONS

6. Inquiry by magistrate in to cause of death is conducted as under

Sec. 176 BNSS

Sec. 194 BNS

Sec. 196 BNS

Sec 106 BNSS

7. Which of the following refers to the ethical principles for medical research involving human subjects?

- A. Declaration of Oslo
B. Declaration of Helsinki
C. Declaration of Tokyo
D. Declaration of Sydney

8. The evisceration technique in which organs are removed en masse:

- A. Lettules method
B. Virchow's method
C. Rokitsky's method
D. Ghon's method

9. Regular rhythmic contractions of uterus which can be elicited in 4-8 weeks of pregnancy is called

- Osiander
Goodell
Palmar
Braxton-Hicks

10. Lust murder is an extreme form of

- A. Troilism
B. Masochism
C. Sadism
D. Frotteurism

case scenario based questions.

Body of a male aged 35 years was found hanging from the bark of a tree using coir rope. On examination, there was drooling of saliva from the right angle of mouth. An incomplete, oblique ligature mark was present around the neck. Postmortem staining, present over extremities of both upper and lower limbs and back of the trunk, was fixed. Rigor mortis was fully established and retained all over the body.

11. From the above given scenario, the probable time since death is

- A. 4-6 hours
B. 18-24 hours
C. 12-18 hours
D. 24-36 hours

12. The probable position of knot is over the

- Right angle of jaw
Under chin
Left angle of jaw
Nape of neck

ANSWERS

1. (A)

2. (A)

3. (C)

4. (A)

5. (C)

6. (A)

7. (B)

8. (D)

9. (D)

10. (C)

11. (C)

12. (A)

1. All of the following are antemortem features of hanging EXCEPT

- Oblique ligature mark
- La facie sympathique
- Salivary trickle mark
- Vital reaction

2. Haemorrhage on the ventral surface of intervertebral discs of lumbar vertebrae seen in complete hanging is called

- Amussat's sign
- Paltauf's hemorrhage
- Prinsloo Gordon hemorrhage
- Simons haemorrhage

3. All of the following are early postmortem changes EXCEPT

- Livor mortis
- Tache noire
- Rigor mortis
- Atria mortis

Assertion (A) and Reason (R)

Answer these questions by selecting appropriate options given below.

4. (A): A zone of negative vital reaction is seen around antemortem wound.

(R): The central zone close to edge of antemortem wound becomes necrotic and has decreased enzyme activity.

Both A and R are true and R is the reason of A

Both A and R are true, and R is not the reason for A

A is correct but R is incorrect

A is incorrect but R is correct

Both A and R are incorrect

5. (A): Husband can sue the doctor if AID (Artificial Insemination Donor) is done without the consent of husband.

(R): In case of AID, consent of donor's wife is mandatory, whereas consent of husband is not essential.

Both A and R are true and R is the reason of A

Both A and R are true, and R is not the reason for A

A is correct but R is incorrect

A is incorrect but R is correct

Both A and R are incorrect

6. (A): The results of narcoanalysis can be admitted as evidence even if done without the consent, in certain cases.

(R): Consent of the person is not required when the test is performed on a person under arrest.

Both A and R are true and R is the reason of A

Both A and R are true, and R is not the reason for A

A is correct but R is incorrect

A is incorrect but R is correct

Both A and R are incorrect

7. (A): Poisoning by corrosives except carbolic acid is a relative contraindication for gastric lavage.

(R): Gastric lavage can cause further injury to esophageal mucosa and perforation in cases of poisoning by corrosives.

Both A and R are true and R is the reason of A

Both A and R are true, and R is not the reason for A

A is correct but R is incorrect

A is incorrect but R is correct

Both A and R are incorrect

8. (A): Due to its high affinity, carbon monoxide combines reversibly with hemoglobin producing tissue hypoxia.

(R): Oxygen carrying capacity of blood is reduced by formation of carboxyhemoglobin.

Both A and R are true and R is the reason of A

Both A and R are true, and R is not the reason for A

A is correct but R is incorrect

A is incorrect but R is correct

Both A and R are incorrect

ANSWERS

1. (B)

2. (d)

3. (d)

4. (a)

5. (C)

6. (E)

7. (A)

8. (A)

multiple response type questions

1. Which of the following methods are used to estimate age from teeth?
A. Gustafson
B. Todd
C. Boyde
D. Suchey-Brooks
2. All the following induce abortion by increasing uterine contractions EXCEPT
A. Ergot alkaloids
B. Magnesium sulphate
C. Synthetic estrogens
D. Lead oxide
3. Which of the following injuries can be produced by a single edged knife?
Chop wound
Incised wound
Stab wound
Abrasion
4. Under microscope, dark brown rhombic crystals can be seen in
Barberio's test
Teichmann test
Takayama test
Florence test
5. Which of the following xenobiotics causes blue line on the gums?
Lead
Mercury
Copper
Iron

Multiple Choice Questions

6. Ideal place to record body temperature dead bodies is
7. A 20 year old boy is sexually active with his 18 year old own sister while parents are away, the sexual intercourse with closely related individual by blood is known as
8. Rule of Hasse used for determining the—of foetus.
9. Magnan's syndrome is seen in poisoning of
10. Examining the patient without consent amounts to

case scenario based questions

A farmer while working on his field felt something bite on his right leg, after which he saw some snake crawl away. After few minutes, he noticed bleeding from the bite site along with pain. He was rushed to the casualty and treatment was initiated

11. Which among the following snake could be the causative agent?
(a) Common Cobra (b) Common Krait
(c) Russell's viper
(d) Python
12. True of venomous snakes are all, except:
(a) Fangs present (b) Belly scales are small
(c) Small head scales (d) grooved teeth
13. Muscle paralysis is caused by bite of:
(a) sea snake
(b) Krait
(c) Mamba
(d) Python
14. In a snake envenomation, antivenom is started by giving a dose of:
(a) 2 vials (b) 4 vials
(c) 10 vials
(d) 20 vials
(e) Grooved teeth
15. Drug used for muscarinic symptoms seen in cobra envenomation:
(a) Neostigmine
(b) Pralidoxime (c) Prazocin
(d) Naloxone

ANSWERS

1. A, C, D
2. B
3. B
4. (B)
5. A
6. Rectum
7. Incest
8. Age of fetus
9. Cocaine
10. Assault
11. CC)
12. (b)
13. (b)
14. CC)
15. (a)

Assertion (A) and Reason (R).

1. Assertion: Forensic entomology can assist in estimating the time of death.

Reason: The life cycle of insects that colonize a body can provide clues about the postmortem interval based on environmental factors

- < Both assertion and reason correct and reasoning is the correct explanation for assertion
b) Both assertion and reason correct but reasoning is not the correct explanation for assertion
c) Assertion is true, but reason is false
d) Assertion is false, but reason is true

2. Assertion: A body can show signs of livor mortis within 30 minutes after death.

Reason: Livor mortis follows Nysten's law,

- a) Both assertion and reason correct and reasoning is the correct explanation for assertion
b) Both assertion and reason correct but reasoning is not the correct explanation for assertion
Assertion is true, but reason is false
d) Assertion is false, but reason is true

3. Assertion: The presence of blue discoloration on the skin can indicate cyanide poisoning.

Reason: Heavy metals accumulate in body tissues and can be analyzed using specialized techniques like atomic absorption spectroscopy

- Both assertion and reason correct and reasoning is the correct explanation for assertion
Both assertion and reason correct but reasoning is not the correct explanation for assertion
Assertion is true, but reason is false
Assertion is false, but reason is true

4. Assertion: Postmortem interval can never be estimated by measuring body temperature.

Reason: The body cools at a predictable rate after death, allowing for time estimation based on environmental conditions.

- a) Both assertion and reason correct and reasoning is the correct explanation for assertion
b) Both assertion and reason correct but reasoning is not the correct explanation for assertion
c) Assertion is true, but reason is false
d) Assertion is false, but reason is true

5. Assertion: Blood alcohol concentration (BAC) can be accurately measured using breathalyzer tests.

Reason: Breathalyzers estimate BAC by measuring the amount of alcohol in exhaled breath, which correlates with blood levels.

- a) Both assertion and reason correct and reasoning is the correct explanation for assertion
b) Both assertion and reason correct but reasoning is not the correct explanation for assertion
Assertion is true, but reason is false
d) Assertion is false, but reason is true

multiple response type questions

6. Gun powder on body and clothing can be visualized by:

- t) Harrison and Gilroy test (b) Luminol test
3 Dermal nitrate test
(at) Pyrogallol test

7. Which among the following are CNS stimulants?

- 3 Amphetamine
(b) Opioids
3 Methylphenidate
(d) e Croton

8. Contributory negligence is by:

- Doctor
(b) Attendant
fe) Patient
(Nurse

9. Euthanasia (active and passive) is legalised in:

- (a) Netherlands (b) India
(l) Belgium
(QLuxembourg

10. As per registration of Births and Deaths Act 1969, deaths need to be certified using:

- (a) Form 4
(b) Form 4A
(c) Form 4B
(d) Form 4C

ANSWERS

1. (a)

2. (b)

3. (c)

4. (d)

5. (a)

6. (a), (b), (c)

7. (a), (c)

8. (a) (b) (c) (d)

9. (a) (c) (d)

10. (a) (b)

Single response type MCQs:

1. Presence of DNA of accused in the vaginal swab collected from a rape survivor is an example of:

- a) Galton's exchange
- b) Locard's principle
- c) Puppe's rule
- d) Bertillon's principle

2. Type of torture where the head is covered and tied using a plastic bag is:

- a) Falanga
- b) Parrot's perch
- c) Dry Submarine
- d) El Plankton

3. Harrison and Gilroy test is associated with:

- a) Thermal injury
- b) Firearm
- c) Hanging
- d) Electric discharge

4. Patau's haemorrhage is seen in:

- a) Burking
- b) Drowning
- c) Smothering
- d) Hanging

5. True regarding adipocere are all except:

- a) Common in dry and cold climate.
- b) Also known as 'saponification'.
- c) Occurs due to hydrolysis and hydrogenation of body fat.
- d) Has a rancid smell.

Multiple response type MCQs:

6. Regarding incised wound:

- i. Edges are clean cut
- ii. Tissue bridging present
- iii. Length is shorter than depth
- iv. Beveling can be seen

7. Regarding dentition:

- i. Mixed dentition is seen between 6 years and 11 years.
- ii. Transparency of root is the most reliable criteria in Gustafson's method
- iii. First permanent tooth to erupt is central incisor.
- iv. Chalky white teeth are seen in nitric acid poisoning.

8. The Cyanide antidote kit contains:

- i. Sodium nitrate
- ii. Sodium nitrite
- iii. Sodium sulphate
- iv. Sodium thiosulphate

9. Tests for identification of blood in a suspected stain include-

- i. Hemin crystal test
- ii. Barberio's test
- iii. Kastle Meyer test
- iv. Benzidine test

10. Regarding putrefaction:

- i. Honey comb appearance of liver can be seen.
- ii. In males prostate is the last organ to putrefy.
- iii. In females gravid uterus is the last organ to putrefy.
- iv. A body buried in soil decomposes faster as compared to one submerged in water.

ANSWERS

1. (b)

2. (b)

3. (c)

4. (b)

5. (a)

6. (i) (ii) (iii)

7. (i) (ii) (iv)

8. (ii) (iv)

9. (i) (ii) (iii) (iv)

10. (i) (ii)

Assertion and Reason type MCQs:

11. A: Fissured fracture in the outer table of cranial vault amounts to grievous hurt.

R: Whoever causes bodily pain, disease or infirmity is said to cause hurt

- a) Both A and R are true, and R is the reason for A
- b) Both A and R are true, and R is not the reason for A.
- c) A is correct and R is incorrect.
- d) A is incorrect and R is correct.

12. A: Vicarious liability is also known as the Doctrine of Respondent Superior

R: The entire liability of the negligent act lies on the superior

- a) Both A and R are true, and R is the reason for A.
- b) Both A and R are true, and R is not the reason for A
- c) A is correct and R is incorrect.
- d) A is incorrect and R is correct.

13. A: Bulimia nervosa can lead to starvation

R: Starvation not only includes withholding of food but also intake of unbalanced food

- a) Both A and R are true, and R is the reason for A.
- b) Both A and R are true, and R is not the reason for A.
- c) A is correct and R is incorrect
- d) A is incorrect and R is correct.

14 A Warning Notice is put up by the National Medical Commission.

R Disciplinary actions against an RMP for infamous conduct is taken by the State medical Council

Both A and R are true, and R is the reason for A.

- b) Both A and R are true, and R is not the reason for A.
- c) A is correct and R is incorrect.
- d) A is incorrect and R is correct.

15. A: Basophilic-stippling is seen in lead poisoning.

R: Basophilic-stippling is due to the accumulation of degradation products of RNA in the WBCs

- a) Both A and R are true, and R is the reason for A.
- b) Both A and R are true, and R is not the reason for A.
- c) A is correct and R is incorrect.
- d) A is incorrect and R is correct.

Scenario based type MCQs:

Three people were brought to the Emergency Department of your hospital with alleged history of a car hitting a pedestrian followed by head-on collision with a scooter. The scooter rider was brought dead. The pedestrian and the car driver were admitted with multiple injuries.

16. regarding the pedestrian, select the wrong statement:

- a) Primary impact injuries are due to the first impact of the vehicle with the pedestrian.
- b) Secondary injuries are also known as tertiary impact injuries
- c) Secondary impact injuries are due to the pedestrian falling on to the ground.
- d) Secondary injuries can result from run over by another vehicle.

17. Regarding bumper fracture, all the following statements are correct except:

- a) Usually involves the leg bones.
- b) Shape of the injury varies depending on whether the leg was planted or raised.
- c) Shape of the injury can be wedge-shaped or spiral shaped.
- d) The apex of the wedge is formed at the area of impact.

18. The triad comprising of femoral shaft fracture, chest/abdominal injuries and head injuries in a child pedestrian is known as

- a) Marshall's triad
- b) Waddell's triad
- c) Virchow's triad
- d) Bichat's triad

19. The incorrect statement concerning injuries found in the car occupants is:

- a) Whiplash injury is seen only on the driver of the vehicle.
- b) Transverse intimal tears (Ladder rung tears) can be seen in the descending thoracic aorta,
- c) Transection of aorta is the commonest at just below the arch of aorta
- d) Tears in the intestinal mesentery can result if the occupant had worn seatbelt

ANSWERS

11. (b)

12. (c)

13. (a)

14. (d)

15. (b)

16. (b)

17. (d)

18. (b)

19. (a)

MCOS-CASE SCENARIO BASED

15. When a doctor is summoned to a sessions court as a Defence Witness, who is responsible for conducting the Examination-in-chief?
A. Public Prosecutor
B. Assistant Public Prosecutor
C. Medical Examiner
D. Defence lawyer
E. Judge
16. In the case of a 92-year-old male who died in the hospital after one month of treatment following a road traffic accident, with a CT scan showing brain laceration, which statement is true regarding the need for a medicolegal autopsy?
A. Consent of the Next of kin is needed for Medicolegal autopsy
B. Consent of the treating Doctor is needed for Medicolegal autopsy
C. No need for Consent from relative for Medicolegal autopsy
D. Head alone need to be examined during autopsy
E. Only a Pathological Autopsy is needed
17. A 22 year old football player accidentally hit his head forcibly on the pillar of the goal post, subsequently falling unconscious, regaining normalcy, but dying after a few hours, what is this period of normalcy known as?
A. Cerebral Concussion
B. Physiological gap
C. Lucid Interval
D. Punch Drunkenness
E. Post traumatic amnesia
18. A 59 year old chronic alcoholic male who Was taken into police custody two days prior and is now exhibiting violent and delirious behaviour with suicidal and homicidal attempts, along with tremors, which condition is most likely responsible?
A. Marchiafava Bignami syndrome
B. Mallory-Weiss syndrome
C. Wernicke's encephalopathy
D. Delirium tremens
E. Korsakoff's psychosis
19. If a school bus driver suffering from severe glaucoma, resulting in a significant reduction of visual field and visual acuity, continues his job despite the doctor's warning, which principle allows the doctor to inform the school authorities about this situation?
A. Vicarious liability
B. Corporate liability
C. Emergency Doctrine
D. Therapeutic privilege
E. Privileged communication

MCQs-SINGLE RESPONSE TYPE

20. Casper's dictum is related to which aspect of forensic medicine?
A. Rate of cooling in temperate climate
B. Formula for calculating Time since Death
C. Mode of progression of Rigor mortis
D. Ratio of decomposition in different environments
E. Pattern of distribution of Postmortem staining
21. Which test is used for detecting Seminal stains?
A. Benzidine test
B. Barberio test
C. Takayama test
D. Locard's test
E. Gettler's test
22. What is the specific antidote for Organophosphate poisoning?
A. Physostigmine
B. Acetyl cysteine
C. Oximes
D. Amyl nitrite
E. Naloxone
23. Which paraphilia involves deriving sexual gratification by wearing the dress of opposite sex?
A. Voyeurism
B. Fetishism
C. Uranism
D. Transvestism
E. Frotteurism
24. What is perjury?
A. Giving false evidence in a court of law
B. Making a statement during an inquest
C. Dying declaration in the presence of a defence lawyer
D. Praxy consent for surgery
E. The ability to make a valid will

ANSWERS

15. D

16. C

17. C

18. D

19. E

20. D

21. B

22. C

23. D

24. A

MCQ- MULTIPLE RESPONSE TYPE (25-29)

Read the statements and mark the answer appropriately

25. Which of the following statements are True about Dying Declaration

i. Next of kin should give consent.

ii. Ideally it should be recorded by the Magistrate

iii. Doctor should certify Compos mentis

i. Accused should be present

A.i,i,ii

B.Lil,v

C.i,ii,iv

~~D.ii,iii~~

D. ii, iii

26. Which of the statements are True?

i. Acid causes liquefaction necrosis

ii. Rain drop type of pigmentation is seen in chronic arsenic poisoning

iii. Chalky white deposits are seen in sulphuric acid poisoning

iv. Gastric Lavage can be done in Carbolic Acid poisoning

A.i,ii,iii

B.ii

~~C.iii~~

D.ii,i

C. ii, iii

27. POCSO Act 2012

i. Mandates reporting of cases to police by doctors

ii. Is for protecting all genders

ANSWERS

25. (D)

26. (C)

27. (i) (ii)

Comm med 1

DM Wayanad Institute of Medical Science

1. As a newly appointed medical officer in a primary health center, you observe that a large proportion of workers employed in a local textile industry frequently report to your health facility with complaints of skin problems such as rashes, dermatitis, and itching. You suspect that exposure to chemical dyes may be contributing to their skin problems.

a) What study design would you choose, give reasons
Case Control

b) Outline the steps of the study.

c) Discuss bias and confounding factors.

d) Write briefly about the data analysis plan for this study?
(2+4+2+2)

Multiple Choice Questions

Single response type:

Marks (20 x 1 = 20)

15. Which of the following Hill's criteria for causation emphasizes that a stronger association more likely to be causal?

- a) Consistency.
- b) Strength of association.
- c) Temporality.
- d) Biological plausibility

Ans. b)

16. Which of the following sampling methods ensures that every individual has an equal chance of being selected?

- a) Stratified sampling.
- b) Cluster sampling.
- c) Systematic sampling.
- d) Simple random sampling

Ans. d)

17. Which of the following is a genetic disorder caused by trisomy 21?

- a) Turner syndrome.
- b) Klinefelter syndrome.
- c) Down syndrome.

d) Cystic fibrosis

Ans. c)

18. Which of the following is age independent indicator of malnutrition

a) Underweight

b) Stunting

c) Wasting

d) Mid Arm Circumference

Ans. d)

19. Which of the following terms is used to describe the preventive, therapeutic and rehabilitative services for the protection of society from antisocial, criminal or deviant conduct of man?

a) Social defence.

b) Social medicine.

c) Social democracy.

d) Social dynamics

Ans. a)

Multiple response type

20. Key components of integrated vector control are:

- a) Biological control
- b) Use of insecticides
- c) Source reduction.
- d) Exclusive use of repellents

Ans. a) b) c)

21. Which of the following are characteristics of a point source epidemic?

- a) All cases occur within one incubation period.
- a) Epidemic curve shows a gradual rise and fall of cases
- c) The source of infection is continuous over time.
- d) Cases peak quickly and decline rapidly

Ans. a) d)

22. Which of the following conditions commonly require genetic counselling?

- a) Down syndrome.
- b) Diabetes mellitus type 2.
- c) Hemophilia.

d) Cystic fibrosis

Ans. a) c) d)

23. Which of the following foods are rich sources of iron?

a) Spinach.

b) Milk.

c) Red meat.

d) Legumes

Ans. a) c) d)

24. Which of the following is true about attitude in human behaviour

a) It is acquired from social interactions

b) It include an affective or feeling element

c) It predisposes one to respond in a preferential manner

d) it is a temporary and fleeting aspect of human behaviour

Ans. a) b) c)

Assertion reason type;

25. Assertion (A): Screening for cervical cancer reduces mortality.

Reason (R): Screening helps in early detection and treatment of pre-cancerous lesions.

- a) Both A and R are true, and R explains A.
- b) Both A and R are true, but R does not explain A.
- c) A is true, but R is false.
- d) A is false, but R is true.

Ans. a)

26. Assertion (A): Cohort studies often bear delayed results

Reason (R): Long follow up period is needed

- a) Both A and R are true and R is the correct explanation of A
- b) Both A and R are true and R is not correct explanation of A
- c) A is true but R is false
- d) A is false but R is true

Ans. a)

27. Assertion (A): Propaganda makes people think for themselves

Reason (R): Knowledge and skills are actively obtained through propaganda

- a) Both A and R are true and R is the correct explanation of A

- b) Both A and R are true and R is not correct explanation of A
- c) A is true but R is false
- d) A is false but R is true
- e) Both A and R are false

Ans. e)

28. Assertion (A): Intrauterine period of life is a very important period from nutritional standpoint

Reason (R): In intrauterine period there is increased demand of nutrients

- a) Both A and R are true and R is the correct explanation of A
- b) Both A and R are true and R is not correct explanation of A
- c) A is true but R is false
- d) A is false but R is true

Ans. a)

29. Assertion (A): acculturation is culture contact

Reason (R): it is contact between two people with different type of culture with diffusion of culture in one way

- a) (A) is not correct but (R) is correct

b) Both (A) and (R) are correct and (R) is the correct explanation of (A).

c) Both (A) and (R) are correct and (R) is not the correct explanation of (A).

d) (A) is correct but (R) is not correct

Ans. d)

Clinical scenario based MCQ.

Scenario: A pharmaceutical company has developed a new oral medication to reduce blood pressure in hypertensive patients. They approach a Medical College hospital to conduct a randomized controlled trial (RCT) to test the new drug.

30. What is the main purpose of conducting a randomized controlled trial?

a) To identify rare diseases in a population

b) To test the effectiveness and safety of a new treatment compared to a standard or placebo

c) To monitor patient compliance with medication

d) To study disease trends in the population.

Ans. b)

31. Why is randomization important in an RCT?

a) To ensure participants are treated equally during the trial

- b) To prevent ethical issues related to treatment allocation
- c) To minimize selection bias and evenly distribute confounding variables
- d) To identify the most compliant participants

Ans. c)

32. What is the primary role of a control group in an RCT?

- a) To reduce the cost of the study
- b) To act as a baseline for comparing the effects of the new treatment
- c) To improve recruitment of participants
- d) To test the safety of the control medication

Ans. b)

33. What does "blinding" mean in the context of an RCT?

- a) Ensuring all participants receive the same dose of medication
- b) Preventing researchers and/or participants from knowing which treatment group they belong to
- c) Randomly allocating participants to treatment groups
- d) Conducting the study in a blinded population

Ans. b)

34. What would be an appropriate primary outcome for this trial?

- a) Patient satisfaction with the medication
- b) Reduction in hospital admissions due to cardiovascular diseases
- c) Reduction in systolic and diastolic blood pressure after a specified duration
- d) Improvement in medication adherence

Ans. c)

Calicut medical college

1. In the primary health centre where you serve as the medical officer, there has been an increase in the number of low birth weight babies being born. You want to find out without delay whether maternal anemia could be a potential risk factor. Answer the following questions:
 - a. What type of study design can you plan?
 - b. What are the steps involved in conducting such a study?
 - c. How can you minimize bias in the study?
 - 4. How will you determine the association?

(2+4+2+2)

Malabar medical college

1. Multiple Choice Questions (1x20=20)

Question numbers (i-v) are single response type questions.

(i) Out of the following, which is a measure of dispersion:

- a) Mean
- b) Median
- c) Standard deviation
- d) Mode

Ans (c)

(ii) Principles of health education include all except:

- a) Credibility
- b) Motivation
- c) Participation
- d) Plausibility

Ans (d)

(iii) Recommended periodical examination in occupational exposure to Lead is:

- a) Once in 2 weeks
- b) Monthly
- c) Every six months
- d) Yearly

Ans b)

(iv) Changing concept in health education include

- a) Community participation to Community involvement
- b) Community involvement to Community Participation.
- c) Promotion of health food habits to prevention of disease
- d) Promotion of physical activity to prevention of disease

Ans (a)

(v) What is true about Prospective screening?

- a) Presumptive identification of unrecognized disease
- b) People are examined for the benefit of others
- c) Does not arise from a patient's request
- d) Done in chronic diseases whose natural history is not fully known

Ans b)

Question numbers (vi-x) are case scenario-based questions.

Q) As a medical officer of PHC, you noticed that number of cases of vector borne diseases is increasing in your area. You are planning to do a vector survey in the area. Answer the following questions.

(vi) Which of the following disease is transmitted by Culex mosquito?

- a) Dengue
- b) Japanese encephalitis
- c) Zika
- d) Chikungunya

Ans (a)

(vii) Which of the following is true regarding Anopheles mosquito?

- a) Eggs laid in clusters
- b) Larva has no siphon tube
- c) Pupa has long and narrow siphon tube
- d) Adult mosquito, when at rest, body exhibits a hunchback

Ans (b)

(viii) Type of mosquito breeds in water containing certain type of aquatic vegetation

a) Anopheles

b) Culex

c) Aedes

d) Mansonia

Ans (d)

(ix) Which of the following is an anti-larval mosquito control measure?

a) Use of residual sprays

b) Use of mosquito repellents

c) Use of Mineral oil

d) Screening

Ans c)

(x) Normal Flight range of Aedes mosquito

a) Less than 10m

b) Less than 100m

c) More than 1000m

d) Less than 1500m

Ans (b)

Question numbers (xi-xv) consists of two statements - Assertion (A) and reason (R). Answer these questions by selecting the appropriate options given below.

(xi). A: Phenylketonuria is an autosomal recessive disorder resulting in a deficiency of the liver enzyme phenylalanine hydroxylase.

R: Characterised by build-up of phenyl acetic acid in the urine.

- a) Both A and R are true and R is the reason for A
- b) Both A and R are true and R is not the reason for A
- c) A is correct but R is incorrect
- d) A is incorrect, but R is correct

Ans c)

(xii). A: Sociology deals with the study of human relationships and of human behaviour

R: Sociology studies psychology of individuals living in human society or groups

- a) Both A and R are true and R is the reason for A
- b) Both A and R are true and R is not the reason for A

c) A is correct but R is incorrect

d) A is incorrect, but R is correct

Ans c)

(xiii) A. Steeping method is used to remove the toxins by soaking the pulse, *Lathyrus sativus* in hot water.

R: The toxins are water soluble.

a) Both A and R are true and R is the reason for A

b) Both A and R are true and R is not the reason for A

c) A is correct but R is incorrect

d) A is incorrect, but R is correct

Ans a)

(iv). A: Compressed air can be used as part of the backwashing processes in rapid sand filters.

R: Backwashing dislodges the impurities and cleans up the sand bed.

a) Both A and R are true and R is the reason for A

b) Both A and R are true and R is not the reason for A

c) A is correct but R is incorrect

d) A is incorrect, but R is correct

Ans a)

(xv). A: DDT is recommended for larviciding operations.

R: DDT has long residual effect.

a) Both A and R are true and R is the reason for A

b) Both A and R are true and R is not the reason for A

c) A is correct but R is incorrect

d) A is incorrect, but R is correct

And d)

Question numbers (xvi-xx) are multiple response type questions.
Read the statements & mark the answers appropriately.

(xvi) Which of the following is true about Silicosis

i. Caused by inhalation of dust containing free silica or silicon dioxide

ii. It is also called coal miner's pneumoconiosis

iii. Xray chest shows "snow storm appearance"

iv. Xray chest shows ground glass appearance in lower two-thirds of lung fields

a) i, ii, iii

b) i,ii,iii,iv

c) ii, iv

d) i, iii

Ans (d)

(xvii) Vaccines that follow open vial policy are

i. OPV

ii. MR vaccine

iii. DPT

iv. BCG

a) iii only

b) i,ii, iv

c) i, ii, iii

d) i, iii

Ans (d)

(xviii) The correct nutritional recommendation for a pregnant woman in her third trimester

i. Daily extra 17 g protein

ii. Daily extra 22 g protein

iii. Daily extra 520 Kcal

iv. Daily extra 350 Kcal

a) i, iii

b) i, iv

c) ii, iii

d) ii, iv

Ans (d)

(xix) Components of Human Development Index are

i. Life expectancy at birth

ii. Life expectancy at age 1

iii. GNI per capita

iv. Mean years of schooling

a) i, iii

b) i, iii, iv

c) ii, iii, iv

d) iii only

Ans (b)

(xx) Select heat stress indices from the following:

- i. Equatorial comfort index
- ii. Predicted four hour sweat rate
- iii. Effective temperature
- iv. Corrected effective temperature

a) i, ii, iii, iv

b) i, ii, iii

c) i, ii

d) ii only

Ans (a)

Short Essay

3) Describe the basic steps in randomised controlled trial. (6 marks)

Short Answer

4) Difference between case and cohort.

5) importance of sampling in research methodology. Describe the types of sampling.

Jubilee mission medical college

1. Multiple Choice Questions

Questions (I-V) are single response type questions

1. The term DALY stands for

- a) Disease avoidance life year
- b) Death adjusted life year
- c) Disability adjusted life year
- d) Disability adherence life year

Answer c)

1. Which of the following is characteristics of a cross-sectional study?

- a) Measures incidence rate
- b) Follows subject over a period of time
- c) Studies population at single time point
- d) Conducted only in hospitals

Answer c)

2. In the demographic transition model, the phase characterised by high birth rates and high death rates is

- a) Phase 1
- c) Phase 3
- b) Phase 2
- d) Phase 4

Answer (a)

IV. Herd immunity is best described as

- a) Immunity achieved through individual vaccination
- b) Protection of a group with no immunity
- c) Protection due to high immunity in the population
- d) Immunity achieved through genetic factors

Answer c)

V. Which type of biomedical waste is NOT treated by incineration?

- a) Cytotoxic drugs
- b) Radioactive waste
- c) Anatomical waste
- d) Microbiological waste

Answer (a)

Question (VI-X) are case Scenario based questions

A 3-year-old child is brought to the OPD with complaints of poor growth, fatigue and recurrent infections, O/E child has sparse hair, scaling skin and B/L pitting pedal oedema.

VI. What is the most likely diagnosis of the child?

- a) Marasmus
- b) Rickets
- c) Kwashiorkor
- d) Beri-Beri

Answer c)

VII. Which of the following clinical signs is specifically associated with the diagnosed condition?

- a) Severe muscle wasting without oedema
- b) Delayed wound healing
- c) B/L pitting oedema with distended abdomen
- d) Hyperpigmentation of skin

Answer c)

VIII. Which of the following is the best dietary intervention for this child??

- a) High protein high calorie food
- b) Low fat and low calorie
- c) Increased daily iron and calcium intake
- d) High fibre and high calorie

Answer (a)

IX. Which of this micronutrient deficiency is commonly associated with malnutrition?

- a) Vitamin D & vitamin E
- c) Iron, zinc and vitamin B complex
- b) Iodine & potassium
- d) Magnesium and vitamin C

Answer c)

X. Which of the following markers is typically elevated in case of PEM due to muscle catabolism?

- a) Albumin
- b) Cholesterol
- c) Blood urea nitrogen (BUN)

d) Blood glucose

Answer c)

Question numbers (XI-XV) consist of two statements - Assertion (A) and Reason (R) Answer these questions by selecting the appropriate options given below

XI. (A)- Cross sectional studies are useful for measuring the prevalence of disease in a population

(R)-Cross sectional studies collect data at a single point in time, providing a snap shot of the health status of the population

- a) Both A and R are true and R is the reason for A
- b) Both A & R are true and R is not the reason for A
- c) A is true but R is false
- d) A is false but R is true

Answer (a)

XII. (A)- The odds ratio is used to measure the association between exposure and outcome in case-control studies.

(R)-Case-control studies measure the incidence of a disease in exposed and unexposed groups.

- a) Both A and R are true and R is the reason for A
- b) Both A & R are true and R is not the reason for A

c) A is true but R is false

d) A is false but R is true

Answer c)

XIII. (A)- Silicosis is a preventable occupational lung disease caused by inhalation of silica dust.

(R)- Wet drilling, ventilation, and personal protective equipment are effective measures to reduce workers' exposure to silica dust.

a)Both A and R are true and R is the reason for A

B) Both A & R are true and R is not the reason for A

c) A is true but R is false

d) A is false but R is true

Answer. a)

XIV. (A)- Infant mortality rate (ilVMIR) is a sensitive indicator of the health status of a community.

(R)- Infant mortality rate reflects the socio-economic and environmental conditions affecting the health of mothers and infants.

a) Both A and R are true and R is the reason for A

c) A is true but R is false

d) A is false but R is true

b) Both A & R are true and R is not the reason for A

Answer (a)

XV. (A)- The Culex mosquito is an important vector of the West Nile Virus and lymphatic filariasis.

(R)-Culex mosquitoes prefer to breed in clean, clear water sources.

a) Both A and R are true and R is the reason for A

b) Both A & R are true and R is not the reason for A

c) A is true but R is false

d) A is false but R is true

Answer c)

Question numbers (XVI-XX) are multiple response type questions. Read the statements and mark the answers appropriately

XVI. Health is considered a multidimensional concept. Which of the following dimensions are included in the WHO's definition of health?

I. Physical

II. Mental

III. Social

IV. Environmental

V. Spiritual

a) I, II, III

b) I, III, IV

c) I, II, IV, V

d) I, II, III, V

Answer (a)

XVII. The Human Development Index (HDI) is a composite measure that includes which of the following indicators?

I. Life expectancy at birth

II. Mean years of schooling

III. Employment status

IV. GNI per capita

V. Income

a) I, II, III

b) I, III, IV

c) I, II, IV

d) I, II, III, V

Answer c)

XVIII. Which of the following factors are typically considered when calculating the Air Pollution Index (API)?

I. Concentration of Particulate

II. Nitrogen dioxide (NO₂) levels

III. Carbon dioxide (CO₂) concentration

IV. Oxygen levels in the atmosphere

V. Sulphur dioxide (SO₂) levels

a) I, II, III

b) I, III, IV

c) I, II, IV, V

d) I, II, V

Answer (d)

XIX. Which of the following are the uses of knowing the incubation period of a disease?

I. Helps in making diagnosis

II. For quarantine purpose

III. Help trace contacts

IV. For immunization of at risk persons

V. To calculate communicable period

a) I, II

b) I, II, III, IV

c) II, III,

d) I, II, V

Answer b)

XX. Which of the following factors are essential in the transmission dynamics of infectious diseases?

I. Host susceptibility.

II. Environmental conditions

III. Presence of a suitable vector

IV. Health care access

V. Health awareness of public

a) I, II, III

b) I, III, IV

c) I, II, IV, V

d) I, II, III, V

Answer (d)

Long Essays

2. The district health department has noticed a significant increase in the number of reported cases of chronic obstructive pulmonary disease (COPD) over the past few years. Air quality in the neighbourhood has been declining due to industrial pollution, and large proportion of the population are cigarette smokers. To explore the association between smoking, pollution, and COPD, officials plan to conduct a study.

a) What type of epidemiological study design is most appropriate to investigate this relationship and why?

b) How would you design and conduct this study?

c) What are the advantages and disadvantages of the design?

d) What are the potential bias and how would you limit these bias (1+4+3+2 = 10)

Answer. Case control

Somerville smcsi

1. Final MBBS students observed that a high number of cases of cervical cancer are admitted to the teaching hospital where they are posted. They want to find out the risk factors for cervical cancer. Answer the following.

(1+4+3+2)

a) What type of study would they have to undertake.

Cohort

b) Write the methodology of the study

c) Mention ways to analyse and interpret the data

d) Mention the advantages and disadvantages of the study design you have chosen to do

15) Which of the following best describes eugenics?

Improving human genetic traits through controlled breeding

b) Improving the environment to enhance quality of life

c) Providing medical care for terminally ill individuals d)

Addressing social inequalities through policy changes

16) Which of the following diseases is known for having a high case fatality rate?

a) Malaria

b) Dengue fever

c) Rabies

d) Tuberculosis

Ans. c)

17) Breakpoint chlorination is most commonly used for which of the following purposes in water treatment?

- a) To eliminate all bacterial pathogens in water
- b) To achieve a residual chlorine level for continuous disinfection
- c) To identify the minimum chlorine dose required to ensure water safety
- d) To remove chemical contaminants from drinking water

Ans. b)

18) Which of the following is the key difference between incidence and prevalence?

- a) Incidence is a proportion, while prevalence is a rate
- b) Incidence is concerned with chronic diseases, while prevalence is concerned with acute diseases.
- c) Incidence is measured over a lifetime, while prevalence is measured over a shorter period.
- d) Incidence refers to the number of new cases of a disease, while prevalence includes both new and existing cases.

Ans. d)

19) Which of the following is NOT considered one of Hill's Criteria for establishing causality?

- a) Strength of the association
- b) Consistency of the association
- c) Genetic predisposition
- d) Biological plausibility

Ans. c)

20) Assertion (A): Impairment refers to a loss or abnormality of a physiological or psychological structure or function.

Reason (R): Handicap is the social disadvantage resulting from the impairment that limits an individual's ability to participate in normal life activities.

- a) Both Assertion (A) and Reason (R) are true, and Reason (R) is the correct explanation of Assertion (A).
- b) Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of Assertion (A).
- c) Assertion (A) is true, but Reason (R) is false.
- d) Assertion (A) is false, but Reason (R) is true.

Ans. b)

21) Assertion (A): Quarantine is used to restrict the movement of individuals exposed to a contagious disease.

Reason (R): Quarantine applies to individuals who are confirmed to have an infectious disease.

- a) Both A and R are true, and R is the correct explanation of A.
- b) Both A and R are true, but R is not the correct explanation of A.
- c) A is true, but R is false.
- d) A is false, but R is true

Ans. c)

22) Assertion (A): SDG Goal 3 focuses on ensuring healthy lives and promoting well-being for all at all ages.

Reason (R): Achieving universal health coverage and reducing maternal and child mortality are among the targets of SDG Goal 3.

- a) Both A and R are true, and R is the correct explanation of A.
- b) Both A and R are true, but R is not the correct explanation of A
- c) A is true. but it is false.
- d) A is false, bet R is true.

Ans. a)

23) Assertion (A): screening for cervical cancer is more important among lower socioeconomic group

Reason (B): it could increase the yield of new cases

- a) Both A and B are correct and R is the reason for A
- b) A is correct is correct but R is not the reason for A
- c) A is wrong R. is correct
- d) A is correct R is wrong
- e) Both A and Rare wrong

Ans. a)

24) Assertion (A): In an OPD, used IV sets should be disposed of in a red bag for further treatment and disposal.

Reason (R): Disposing of IV sets in the red bag allows for disinfection and recycling in compliance with the Biomedical Waste Management Rules, 2016.

- a) Both A and R are true, and R is the correct explanation of A.
- b) Both A and R are true, but R is not the correct explanation of A.
- c) A is true, but R is false.
- d) A is false, but R is true.

Ans. a)

A densely populated district in a southern state of India reports a sudden increase in fever cases during the monsoon season. Many patients present with high fever, severe headache, retro-

orbital pain, myalgia, rash, and bleeding manifestations. The district health authorities suspect a dengue outbreak. Laboratory confirmation of cases reveals dengue virus serotypes circulating in the community. Environmental inspections highlight widespread mosquito breeding sites, including stagnant water in uncovered containers. The health department initiates an integrated response, including case management, vector control, and community awareness campaigns. Answer the following questions:

25) Dengue virus is transmitted by which of the following vectors?

- a) Anopheles mosquito
- b) Aedes aegypti mosquito
- c) Culex mosquito
- d) Sandfly

Ans. b)

26) The vector is characterized by which of the following behavior?

- a) They are nocturnal feeders.
- b) They breed in clean, stagnant water.
- c) They are primarily found in rural areas.
- d) They feed only on animals

Ans. c)

27) The peak biting time of the vector is:

- A) Early morning and late evening
- b) Midnight to early morning
- c) Throughout the day
- d) Only at night

Ans. a)

28) Which of the following is NOT a component of Integrated Vector Management (IVM) for dengue control?

- a) Larvicidal treatment of breeding sites
- b) Encouraging the use of insecticide-treated bed nets
- c) Community participation for source reduction .
- d) Fogging with malathion during outbreaks

Ans. b)

29) Under NVBDCP, which environmental measure is recommended to prevent the vector breeding?

- a) Regular fogging with malathion
- b) Filling unused containers with kerosene

- c) Emptying and covering water storage containers weekly
- d) Spraying larvicides on vegetation

Ans. c)

Multiple correct answer Questions (Write all the correct responses under each question)

30) Which of the following benefits are provided under the Employees' State Insurance (ESI) Act, 1948?

- a) Medical benefits to employees
- b) Unemployment benefits to employees
- c) Retirement pension
- d) Maternity benefits

Ans. a) d)

31) Which of the following can be used as indicators for diagnosing severe acute malnutrition (SAM) in children?

- a) Weight-for-age below -3 SD
- b) MUAC less than 12,5 cm
- c) Height-for-age below -2 SD
- d) Bilateral pitting edema

Ans. a) d)

32) Which of the following measures of variability are used to describe the spread of data in biostatistics?

- a) Standard deviation
- b) Interquartile range (IQR)
- c) Mean
- d) Range

Ans. a) b) d)

33) The Infant Mortality Rate (IMR) is calculated using which of the following data points?

- a) Number of deaths under 1 year of age
- b) Number of births in a given year
- c) Total number of live births in a population
- d) Total number of deaths in children under 5 years

Ans. a) c)

34) Which of the following are examples of secondary prevention?

- a) Routine vaccinations
- b) Screening for hypertension

- c) Early treatment of a detected disease
- d) Lifestyle modification after a heart attack

Ans. b) c)

Gmc Palakkad

I. Multiple Choice Questions

A) Single Response Type

1. Among the following, choose one of the basic dimensions of Human Development Index (HDI)

- a) Number of children in family
- b) Literacy rate
- c) Gross Family Income
- d) Life Expectancy at one year

Ans. d)

2. The communication process includes all EXCEPT

- a) Message
- b) Channel
- c) Feedback
- d) Skill

Ans. d)

3. Vector for Trypanosomiasis/African sleeping sickness is

- a) Culex mosquito
- b) House fly
- c) Tsetse fly
- d) Sandfly

Ans. c)

4. Epidemic dropsy is caused by ingestion of

- a) Ergot fungus
- b) Argemone oil
- c) Aflatoxin
- d) BOAA

Ans. b)

5. Byssinosis is caused by inhalation of

- a) Coal
- b) Sugar cane dust
- c) Grain dust

d) Cotton fiber

Ans. d)

B) Multiple Response type

(5 x 1 =5 mark)

Select one or more correct answers from the options (Choose from a,b,c,d);

6. The steps of an experimental randomized control trial include

1. Protocol preparation
2. Experiment/intervention
3. Randomization
4. Matching

a) 2,3,4

b) 1,3,4

c) 1,2,,4

d) 1,2,3

Ans. d)

7. Lead time is between

1. Disease on set
2. First possible point of diagnosis
3. Final critical point of diagnosis
4. Usual time of diagnosis

a) 1 and 4

b) 2 and 3

c) 2 and 4

d) 1 and 3

Ans. c)

8. The stages of demographic cycle includes

1. Fast expanding
2. Early expanding
3. Declining
4. Least stationary

a) 2,4

b) 1,3

c) 1,4

d) 2,3

Ans. d)

9. Measures of dispersion are

1. Mean

2. Range

3. Median

4. Standard deviation

a) 2,4

b) 1,3

c) 1,4

d) 1,2

Ans. a)

10. Group approach of health education include

1. Lecture

2. Demonstrations

3. Television

4. Discussions

a) 1,2,3

b) 2,3,4

c) 1,3,4

d) 1,2,4

Ans. d)

C) Assertion reason type

[Questions 11-15]

(5 x 1=5 marks)

Select the best Option from:

a) Both A & R are true and R is the correct explanation of A

b) Both A & R are true but R is not the correct explanation of A

c) A is true but R is false.

d) A is false but R is true.

11. Assertion (A): Expired cytotoxic drugs are put in yellow bag and incinerated

Reason (R): Incineration is done usually to treat waste that cannot be recycled, reused or disposed off in a landfill

Ans. a)

12. A: Counterfeit medicines contribute to antimicrobial resistance and drug resistant infections

R: Antimalarials and antibiotics are the least commonly reported as sub- standard and falsified medical products

Ans. a)

13. A: Eugenics and Euthenics are secondary levels of prevention for genetic diseases

R: Both Eugenics and Euthenics are health promotional measures

Ans. d)

14. A: Larger the number of false negatives, lower the sensitivity

R: False negatives means patient who actually have the disease are told they do not have disease

Ans. d)

15 A: Child rearing is the function of family

R: Economic stability of family is the sole responsibility of father

Ans. c)

D) Clinical Scenario based MCO'S

(5 x 1-5 marks)

Choose the best response from the options for each question:

16. There is an outbreak of profuse and acute rice water stool diarrhea among people who consume water from a well in a village

1. An important feature of a sanitary well includes

- a) 10m from likely source of contamination
- b) Closed by cement concrete
- c) Lining of the well should be with mud
- d) With no parapet wall

Ans. c)

2. Amount of good quality bleaching powder to disinfect 1000 L of water is

- a) 2.5kg
- b) 25g
- c) 2.5g
- d) 25mcg

Ans. c)

3. The method used to ensure constant usage of chlorine in well water is

- a) Chlorine gas
- b) Double pot chlorination
- c) Chlorine tablet
- d) Chloramine

Ans. b)

4. What is the preferred method of disinfection of well in this scenario?

- a) Break point chlorination
- c) Ozonation
- b) Double pot chlorination
- d) Super chlorination

Ans. d)

5. Methods of purification of water in large scale is

- a) Boiling
- b) Osmosis
- c) Rapid sand filter
- d) Ultraviolet irradiation

Ans. b)

In a study to assess the relationship between birth weight and infant mortality, 800 babies among 5600 weighed below 2500 grams at birth. They were followed up till they completed their first birthday. Of the 480 infants deaths registered, 320 occurred among babies with normal body weight.

a) What type of study is this? Justify? (1+1)

Cohort

b) Briefly describe the steps of the study (5 marks)

C) What measures will you calculate from the study? Comment on the result (3 Marks)

Mount Zion

1. Out of the following, which definition is closest to SEX RATIO?

(a) The relation between male and female

(b) The ratio between the number of adult male and adult females in a population

(c) The ratio between number of female and number of male in a population

d) The number of females per 1000 males in a population

Answer (d)

2. Restriction of activities of a contact, who has been exposed to a case of communicable disease for maximum incubation

period, is termed as:

- (a) Elimination
- (b) Quarantine
- (c) Surveillance
- (d) Isolation

Answer (b)

3. Which one of the following is not included in the elements of Primary Health Care?

- (a) Immunization services
- (b) Family planning services
- (c) Specialized services
- (d) Health education regarding water and sanitation

Answer c)

Which one of the following gives the strength of association between the cause and the disease?

- (a) Prevalence rate.
- (b) Case fatality rate.
- (c) Adjusted rate.

(d) Incidence rate

Answer (d)

The presence of nitrates in water indicates:

(a) Temporary hardness of water

(b) Permanent hardness of water

(c) Fresh faecal contamination

(d) Past faecal contamination

Answer (d)

Multiple Response MCQ

When a new treatment is developed for an infectious disease that delays death but does not produce complete recovery from a chronic disease, which of the following will occur?

a. Prevalence of the disease will decrease

b. Incidence of the disease may or may not be affected

c. Prevalence of the disease will increase

d. Incidence of the disease will decrease

1. A, D

2C, D

3.B, C

4. None of the above

Answer (3)

Fill in the blanks suitably

_____ is defined as the proportion of the disease that can be associated with the identified risk factor and _____ is defined as the proportion of the population that can be protected against the disease provided the identified risk factor is controlled.

A: Attributable Risk

B: Odds Ratio

C: Population Attributable Risk

D: Risk Ratio

1.A and B

2.B and D

3.A and C

4.B and C

Answer 3

8. Which among the following combination best relate to a country who is currently in the third stage of the demographic cycle A:

- A: High Birth Rate
- B: Low Birth Rate
- C: Declining Death Rate
- D: Stationary Birth Rate
- E: Declining Birth Rate

1. A and D

2.C and E

3.A and C

4. C and E

Answer 2

9. Identify the true statement(s) regarding Vitamin A?

- a. It is a water-soluble Vitamin
- b. Its deficiency causes xerophthalmia
- c. Plant foods are sources of preformed Vitamin A (Retinol)
- d. Liver stores Vitamin A in the form of retinoic acid
- e. Its deficiency also causes follicular hyperkeratosis.

1. A, B and C

2. B, C and D

3. A, C and D

4. B and E

Answer 4

10. Regarding breast feeding which one of the following is/ are true?

- a. Feeding of newborn should commence on the second day after birth
- b. Colostrum contains antibodies
- c. Demand Feeding is the best technique of breast feeding among newborns.
- d. Breast feeding is NOT contraindicated in women with tuberculosis
- e. If infant cannot suck, feeding should be discontinued

- 1.A, B and C
- 2. B, C and D
- 3.A, C and D
- 4.A, B and E

Answer 3

Assertion Reason MCQ

11. A- Mid-day meal scheme has been implemented in India.

R- Community nutrition programmes are effective in retention of children in schools and improving their nutritional status.

Option 1- Both A and R are true and R is the correct explanation of A.

Option 2-Both A and R are true but R is not the correct explanation of A.

Option 3- A is true but R is false.

Option 4- A is false but R is true.

Option 5- Both A and R are false

Answer 1

12. A- The relationship between the patient and the doctor is special and is marked by trust, warmth and acceptance.

R-The therapeutic relationship is a lasting relationship, on which the patient can rely forever

Option 1- Both A and R are true and R is the correct explanation of A.

Option 2-Both A and R are true but R is not the correct explanation of A.

Option 3- A is true but R is false.

Option 4- A is false but R is true.

Option 5- Both A and R are false

Answer 3

13. A-Rehabilitation empowers a patient to become a productive member of the society.

R-The treatment of disorders lies in not just the reduction of the symptoms, but also in improving the level of functioning of the patient.

Option 1- Both A and R are true and R is the correct explanation of A.

Option 2-Both A and R are true but R is not the correct explanation of A.

Option 3- A is true but R is false.

Option 4- A is false but R is true.

Option 5- Both A and R are false

Answer 1

14. A: All the wastes generated in a hospital can be Incinerated to control nosocomial infections

R: Colour Coding of containers is an essential component of Bio Medical Waste Management .

Option 1- Both A and R are true and R is the correct explanation of A.

Option 2-Both A and R are true but R is not the correct explanation of A.

Option 3- A is true but R is false.

Option 4- A is false but R is true.

Option 5- Both A and R are false

Answer 4

15. A: Pneumoconiosis often occurs as an occupational disease and hence patients are eligible for compensation.

R: Pneumoconiosis refers to a group of lung diseases caused by inhalation of dust that are breathed in and deposited deep in lungs causing damage.

Option 1- Both A and R are true and R is the correct explanation of A.

Option 2-Both A and R are true but R is not the correct explanation of A.

Option 3- A is true but R is false.

Option 4- A is false but R is true.

Option 5- Both A and R are false

Answer 4

Clinical Scenario based Question

II. As the medical officer of a PHC, you are to submit a report to the District Medical Officer on the various causes of increasing

substance addiction among adolescents in your PHC area and also to plan an effective strategy to deal with this issue.

- a) What shall be the type of study design you choose? Case control study
- b) Name any two bias that can arise in your study design?
- c) What are the two indicators of association that you shall calculate?
- d) What are the two major advantages of your study design?
- e) Is your study a prospective study or retrospective study

GMC Thrissur

Single Response

1. A maize eater has presented with diarrhoea, dementia and dermatitis. Which of the following nutritional disease he is having

A. Beriberi

B. Scurvy

C. Pellagra

D. Glossitis

Ans. C

2. A paramedical worker who has been trained in social case work and in art of interviewing people is called

- A) ASHA worker
- B) Social worker
- C Medical social worker
- D) ANM

Ans. C

3. Epidemiology is concerned with the study of

- A) Distribution of health events
- B) Frequency of health events
- C) Determinants of health events
- D) All of the above

Ans. D

Which one of the following is the first step in planning health education programme

- A) Identifying community resources
- B) Assessing the need
- C) Selecting content
- D) Lesson plan

Ans. B

5. The Father of Public Health is

- A) John snow
- B) Louis Paster
- C) Tuberculosis
- D) Cholera

Ans. A

Multiple response

6. All the following tests are used for testing adequate pasteurization of milk

- 1) Phosphatase test
- 2) Methylene blue reduction test
- 3) coliform count
- 4) standard plate count

A) 1,2,3

B) 1,2,4

C) 2,3,4

D) 1,3,4

Ans. C

7. Indicator of air pollution are

- 1) sulphur dioxide
- 2) smoke
- 3) hydrogen sulphide
- 4) particulate matter

A) 1,2,3

B) 1,2,4

C) 2,3,4

D) 1,3,4

Ans. B

8. All of the following affect the equilibrium in Hardy-Weinberg law

- 1) small population
- 2) random mating
- 3) mutations
- 4) gene outflow

A) 1,2,3

B) 1,2,4

C) 2,3,4

D) 1,3,4

Ans. D

9. Measures of dispersion include

1) standard deviation

2) mean deviation

3) range

4) median

A) 1,2,3

B) 1,2,4

C) 2,3,4

D) 1,3,4

Ans. A

10. Temporary social groups include

1) Crowd

2) Mob

3) Herd

4) Band

A) 1,2,3

B) 1,2,4

C) 2,3,4

D) 1,3,4

Ans. A

Assertion - Reason

Question numbers 11-15 consists of two Statements-Assertion (A) and

reason (R). Answer these questions by selecting the appropriate options given

below.

A. Both A and R are true, and R is the correct explanation of A

B. Both A and R are true, and R is not the correct explanation of A

C. A is true but R is false

D. A is false but R is true

11. Assertion-motivation is contagious

Reason-It spread from one motivated person to another.

Ans. A

12 Assertion: A method is needed for identifying the missing cases and thereby supplementing the notified cases

Reason: This is known as routine surveillance

Ans. B

13. Assertion: Consumption of Khesari Dhal leads to Lathyrism

Reason: Khesari Dhal contain toxic Alkaloid called Sanguinarine

Ans. C

14. Assertion-Bio toilets are considered as environment ecofriendly toilet

Reason. The water seal prevents access by flies and suppress the nuisance from smell

Ans. B

15. Assertion:-The correct ingredient in an insufficient quantity in a medicine is considered as Counterfeit medicine

Reason: A medicine is counterfeit if it is produced with an

intention to cheat.

Ans. A

Scenario Based

A 54-year-old male came to the OPD with complaints of irritant cough with sputum of 2 year duration, pain in the chest and breathlessness. He is poorly nourished. On history taking, he communicated to the doctor that he was a resident of Mysore and is working in the Kolar Gold Mines for 35 years. He is diagnosed as Silicosis

16. Silicosis affect

- A) lower lobes of lungs
- B) upper lobes of lung
- C) both lower and upper lobes
- D) hilum of lungs

Ans. A

17. Respirable dust, responsible for Pneumoconiosis, has a size limit of

- A) <5 microns
- B) <3microns
- C) < 10 microns
- D) <100 microns

Ans. B

18.Characteristic chest X ray appearance seen in Silicosis is

- A) ground glass appearance
- B) snow storm appearance
- C) tram track appearance
- D) white streak appearance

Ans. B

19. The disease developed among silicosis is

- A) Mesothelioma
- B) Carcinoma lung
- C)Tuberculosis
- D) Siderosis

Ans. C

20. Under extended sickness benefit of ESI Act, he is eligible to get benefit for a period of

- A) 6months
- B) 1 year
- C) 2years

D) 4 years

Ans. C

1. A drug company developed a new vaccine against HINI. They approached you to test the effectiveness of this new vaccine compared to already circulating vaccine.

Which study design you will choose for this study and why?

Randomized control trial

Describe in details the various steps of the study you are planning to conduct?

(10 marks)

GMC Manjeri

1. A Pharma company has developed a new drug-CA3221 which they expect to be an effective cure for Cancer Colon, Preliminary studies of the new drug on animals and a few volunteers were found to be effective. The company now wants to test the new drug on patients with cancer colon. The company approaches the oncology department of a multi speciality hospital for conducting this study.

a) Which study design would be ideal for conducting the study in the above situation? Give reasons.

b) Describe the steps in the conduct of the study using this study design

(10 marks)

MOSC

MCQ (Single Response)

1. Which of the following is part of Tertiary Prevention

- a. Life style modification
- b. Early diagnosis
- c. Rehabilitation
- d. Health education

Answer c)

2. Selenium Deficiency may result in

- a. Blindness
- b. Pregnancy loss
- c. Protein Energy Malnutrition
- d. Goiter

Answer c)

3. Shake test is used in the context of

- a. Water purification
- b. Damage of Vaccines
- c. Radiation exposure

d. Air Quality

Answer (b)

4 Which of the following is not a part of Physical Quality of Life Index (PQLI)

a. Literacy

b. Infant mortality

c. Crude birth rate

d. Life expectancy at age one

Answer c)

5. Sentinel Surveillance is used to identify

a. Missing cases

b. Economic burden

c. Selected cases

d. None of the above

Answer c

Choose only a single response

6. Which of the following is/are live attenuated vaccines

i. BCG

- ii. Yellow fever
- iii. Rota virus
- iv. Rabies

- a. i.ii.iii
- b. i,iii,iv
- c. i,ii,iv
- d. ii,iii

Answer a)

7. Which of the following statement/s is/are true about cohort studies

- i. There is a comparison group
- ii. It is usually a prospective study
- iii. Incidence cannot be calculated
- iv. Is costly to conduct

- a. i. ii.iii
- b. i. iii, iv
- c. i. ii. iv
- d. I. iii.

Answer c

8. Which of the following statement/s is/are true about fertility rates

- i. Birth rate is the simplest indicator of fertility
- ii. Net reproductive rate is not a demographic indicator
- iii. Abortion rate is not included as a fertility rate
- iv. Total fertility Rate represents the completed family size

- a. i. ii.iii
- b. ii. iii.
- c. i. ii. iv
- d. i. iv

Answer d)

Which of the following statement/s is/are true about water purification

- i. Rapid sand filters remove more bacteria than slow sand filters.
- ii. Schmutzdecke is a vital layer in a filter.
- iii. Orthotolidine test is used to determine both free and combined chlorine
- iv. Chlorine acts as disinfectant at pH more than 8.5

- a. i. ii.iii
- b. ii, iii.
- c. i. ii. iv
- d. i. iii.

Answer b)

10. Which of the following statement/s is/are true about health care waste management

- i. Incineration is high temperature dry oxidation process
- ii. Inertization is very much useful for infectious waste
- iii. Wet thermal treatment is environmentally sound process
- iv. Microwave irradiation is a cheap method

- a. i. ii.iii
- b. ii. iv.
- c. i. ii, iv

d. I, iii

Answer d)

MCQ (Assertion Reason type)

For question no. 11 to 15 Assertion and Reason are given. Only chose a single response for the answers in the model given below:

Assertion (A): It is the work of the vaccine to prevent the body from getting diseased in future.

Reason(R): Children must be provided with vaccine in their childhood.

- a. Both A and R are true and R is the correct explanation of A.
- b. Both A and R are true but R is not the correct explanation of A.
- c. A is true but R is false.
- d. A is false but R is true.

(Here the answer is a)

11. Assertion (A): Trans fatty acids are geometrical isomer of Cis Unsaturated fatty acids

Reason(R): Trans fatty acids are highly recommended for lifestyle modification

- a. Both A and R are true and R is the correct explanation of A.

b. Both A and R are true but R is not the correct explanation of A.

c. A is true but R is false.

d. A is false but R is true.

Answer c)

12. Assertion (A): Randomization is heart of a RCT

Reason(R): Blinding can reduce bias in RCT

a. Both A and R are true and R is the correct explanation of A.

b. Both A and R are true but R is not the correct explanation of A.

c. A is true but R is false.

d. A is false but R is true.

Answer b

13. Assertion (A): Natural history of disease is best established by cohort studies

Reason(R): Natural history may not be identical for all individual

a. Both A and R are true and R is the correct explanation of A.

b. Both A and R are true but R is not the correct explanation of

A.

c. A is true but R is false.

d. A is false but R is true

Answer a

14. Assertion (A): Incubation period is of fundamental importance in epidemiology

Reason(R): It can trace the source of infection and contacts

a. Both A and R are true and R is the correct explanation of A.

b. Both A and R are true but R is not the correct explanation of A.

c. A is true but R is false.

d. A is false but R is true

Answer a

15. Assertion (A): Percentage of total energy coming from total fat must be 15-30%

Reason(R): Saturated fat increases the risk of cardiovascular disease

a. Both A and R are true and R is the correct explanation of A.

b. Both A and R are true but R is not the correct explanation of A.

- c. A is true but R is false.
- d. A is false but R is true

Answer a

MCQ (Clinical Scenario Based):

A group of workers working in sand blasting industry for 20 years developed respiratory distress and were examined thoroughly. Answer the following questions in this context.

16. The most likely diagnosis is

- a. Silicosis
- b. Byssinosis
- c. Lead poisoning
- d. Asbestosis

Answer a

17. Fitting the job to the worker is known as

- a. Economics
- b. Ergonomics
- c. Industrial Hygiene
- d. Compensation

Answer b

18. Dusts of following size cause pneumoconiosis

- a. 0.5-5 microns
- b. 3-3 microns
- c. 5-5 microns
- d. 0.5-3 microns

Answer d

19. All of the followings are measures to prevent such diseases except

- a. Preplacement examination
- b. Health education
- c. Job termination
- d. Notification

Answer c

20. Workers in such condition will get following benefits Under ESI act except

- a. Sickness benefit
- b. Rehabilitation allowance

c. Maternity Benefit

d. Nutritional kits

Answer d

Travancore Medical College

1. Which of the following parametric tests can be used for comparing means in more than two different groups of individuals?

(a) ANOVA

(b) Unpaired Student's t-test

(c) Paired Student's t-test

(d) Chi Square test

Answer a

2. Which of the following does not affect the Hardy Weinberg law?

(a) Mutation

(b) Small population

(c) Gene outflow

(d) Random Mating

Answer b

3. Contribution to ESI by employer and employee are and respectively:

- (a) 3.25% & 0.75%
- (b) 3.75% & 1.25%
- (c) 4.25% & 1.5%
- (d) 4.5% & 0.5%

Answer a

4. Mission Indradhanush includes all vaccines except:

- (a) Diphtheria
- (b) Polio
- (c) Cholera
- (d) Tetanus

Answer c

5. A primary health centre in Tripura reports 10-20 cases of malaria in a week. In the last week, there were 12 cases. Based on previous records, this can be called:

- (a) Epidemic
- (b) Sporadic

(c) Outbreak

(d) Endemic

Answer d

Section B: Multiple-Response

Socratic methods of health communication include

- a. Lecture
- b. Focus group discussion
- c. Role play
- d. Question and answer session

1. Only (b) and (c)

2. (b), (c), and (d)

3. Only (a) and (d)

4. All of the above

Answer 2

2. Which of the following statements are true about COVID-19?

(a) Control reduces the incidence, complications, and financial burden of the disease.

(b) Herd immunity is primarily achieved by immunisation and natural immunity

c) incubation period is 14 days for all cases

d) proper use of face masks helps reduce transmission

Options:

1.(a) and (b) only

2.(b), (c), and (d)

3.(a), (b), and (d)

4. All of the above

Answer 3

3. Incineration is contraindicated for:

(a) Reactive chemical waste

(b) Pathological waste

(c) Metallic implants

(d) Radioactive materials

Options:

1. (a), (b), and (d)

2. (a), (c), and (d)

3. (b) and (c) only

4. All of the above

Answer 2

4. Which of the following is correct about mosquito nets?

(a) They work by physically preventing vector-borne diseases.

(b) Holes in a mosquito net should be at least 0.05 inches in diameter.

(c) Insecticide-treated nets provide an added layer of chemical protection.

(d) Mosquito nets are an example of primary prevention.

1. Only (a) and (b)

2. (a), (c), and (d)

3. (a), (b), (c), and (d)

4. (b) and (c) only

Answer 3

5. Sensitivity and specificity are influenced by:

(a) The prevalence of the disease in the population being tested.

(b) Correct classification of true positives and true negatives.

(c) Cut-off values used to define positive and negative results.

(d) Sampling bias in the population

Options:

1.(b), (c), and (d)

2.(a) and (b) only

3.(a), (b), and (c)

4. All of the above

Answer 4

Section C: Assertion(A) and Reason(R) (1x5=5)

1. Assertion (A): A problem family lags behind in economic and educational progress compared to the rest of the community.

Reason (R): Problem families typically arise due to lack of resources, unemployment, or social isolation.

(a) Both A and R are true, and R is the correct explanation of A.

(b) Both A and R are true, but R is not the correct explanation of A.

(c) A is true, but R is false.

(d) A is false, but R is true.

Answer a

2. Assertion (A): Tertiary prevention includes rehabilitation to

reduce disability caused by diseases.

Reason (R): Tertiary prevention aims to prevent the occurrence of disease in susceptible individuals.

- (a) Both A and R are true, and R is the correct explanation of A.
- (b) Both A and R are true, but R is not the correct explanation of A.
- (c) A is true, but R is false.
- (d) A is false, but R is true.

Answer c

3. Assertion (A): Disease elimination refers to reducing the incidence of a specific disease to zero in a defined geographical area.

Reason (R): Disease elimination requires long-term maintenance of herd immunity and robust surveillance systems.

- (a) Both A and R are true, and R is the correct explanation of A.
- (b) Both A and R are true, but R is not the correct explanation of A.
- (c) A is true, but R is false.
- (d) A is false, but R is true.

Answer a

4. Assertion (A): The recommended minimum level of residual chlorine in swimming pools is 1.0 mg/L.

Reason (R): Residual chlorine ensures destruction of waterborne pathogens and maintains water safety.

- (a) Both A and R are true, and R is the correct explanation of A.
- (b) Both A and R are true, but R is not the correct explanation of A.
- (c) A is true, but R is false.
- (d) A is false, but R is true.

Answer a

5. Assertion (A): The ESI Act provides financial and medical benefits to employees in case of sickness, maternity, or employment injury.

Reason (R): Contributions for the ESI scheme are made equally by employees and employers

- (a) Both A and R are true, and R is the correct explanation of A.
- (b) Both A and R are true, but R is not the correct explanation of A.
- (c) A is true, but R is false.
- (d) A is false but R is true.

Answer d

Section D: Case scenario-based questions (1x5=5)

A rural community reports a sudden rise in night blindness among school-aged children. Clinical examinations confirm several cases of xerophthalmia, with Bitot's spots and corneal xerosis observed in the most affected. Dietary assessment reveals that the staple diet lacks sufficient green leafy vegetables, animal-based foods, or fortified products. The region has limited access to health services, and the national immunization program is irregularly implemented.

1. Question: What is the primary cause of the symptoms reported in this community?

- a) Iodine deficiency
- b) Protein-energy malnutrition
- c) Vitamin A deficiency
- d) Zinc deficiency

Answer c

2. Question: Which of the following interventions is a part of the National Programme for Prevention of Nutritional Blindness due to Vitamin A Deficiency (NPPNB)?

- a) Administering high-dose vitamin A supplements to children under 5 years
- b) Promoting exclusive breastfeeding for the first six months

- c) Conducting deworming campaigns to improve absorption
- d) Distribution of fortified cooking oils

Answer a

3. Question: Which stage of xerophthalmia is reversible with prompt vitamin A supplementation?

- a) Corneal ulceration.
- b) Keratomalacia
- c) Corneal xerosis
- d) Night blindness

Answer d

4. What dietary advice should be given to prevent Vitamin A deficiency in this community?

- a) Increase intake of orange-coloured fruits and green leafy vegetables
- b) Encourage consumption of fortified wheat flour only
- c) Promote high-protein diets, as they directly address xerophthalmia
- d) Eliminate fats and oils to enhance absorption of fat-soluble vitamins

Answer a

5. What is the most sustainable long-term public health strategy to combat Vitamin A deficiency in such communities?

- a) Periodic administration of high-dose vitamin A capsules
- b) Universal fortification of edible oils with Vitamin A
- c) Intensive health education campaigns on Vitamin A- rich diets
- d) Improving water and sanitation to reduce infections

Answer b

2. The District Health Officer is concerned about an increase in new-onset diabetes among individuals aged 20-45 years following COVID-19 infection. To investigate this, an epidemiological study is planned to examine the potential association between COVID-19 and the onset of diabetes in this age group. (3+5+2)

- a) What would be an appropriate study design to test the hypothesis that COVID-19 infection increases the risk of new-onset diabetes in individuals aged 20-45 years? Justify your choice with reasons.
- b) Enumerate and explain the steps involved in conducting this study. Discuss the appropriate outcome measures of association that can help draw meaningful inferences from the study.
- c) Enlist two advantages and two disadvantages of the chosen study design.

GMC trivandrum

Q) Sunaina is a recent MBBS graduate who is working as a medical Officer in a primary health centre. There have been a number of cases with fever with diarrhea in a nearby village. The villagers suspect it is because of contaminated water in the overhead tank that supplies parts of the village. She decides to investigate whether the contaminated water is a risk factor for the outbreak. Answer the following questions.

- a. What is the study design she should use? Justify.
- b. What are the steps of such a study? Describe how it should be conducted in this context.
- c. What will be the analysis plan of the of the data she has gathered? How will she interpret the findings?
- d. What are the measures that can be taken to contain the outbreak?

(2+4+2+2=10 marks)

Sree Narayana

- 1) A Final MBBS students observed that a high no. of oral cancer cases are admitted to the surgical oncology department of their Medical College Hospital. They want to find out the risk factors for oral cancer.

i) What type of study should they undertake? ii) Write the methodology. iii) Mention ways to analyse and interpret the data. (10 marks)

XV. MCQs (20x1=20)

One word

1) Who is the Father of public health?

Answer: John Snow

2) Who wrote the book "Airs, Water and Places"?

Answer: Hippocrates

3) The constant presence of a disease or infectious agent within a given geographic area, without importation from outside is known as

Answer: Endemic

4) Fitting the job to the worker is known as

Answer: Ergonomics

5) What is the recommended maximum loudness of sound that human ear can tolerate without substantial damage?

Answer: 85 dB

6) The following have individuals as unit of study

1. Cohort studies
2. Cross-sectional study
3. Case control study
4. Ecological study

A. 2 & 3

B. 2, 3 & 4

C. 1, 3 & 4

D. 1, 2 & 4

Answer A

7) All comprise inherent properties of a screening test

1. Sensitivity
2. Yield
3. Specificity
4. Predictive accuracy

A. 1,2 & 3

B.1,2 & 4

C.1,3 & 4

D.2, 3 & 4

Answer C

8) Mass prophylaxis is done in

1. Scabies
2. Lymphatic filariasis
3. Vit A deficiency
4. Worm infestation

A. 1,2 &3

B. 1, 2 &4

C. 1,3 &4

D. 2,3 & 4

Answer D

9) Safe water criteria includes

1. Free from pathogen

2. Free from harmful chemicals
3. Free from chlorine
4. Free from colour and odour

- A. 1,2 & 3
- B. 2, 3 & 4
- C. 1,3 & 4
- D. 1,2 & 4

Answer D

10) All of the following involves a two-way communication

1. Symposium
2. Lecture
3. Panel discussion
4. Workshop

- A. 1,2 &4
- B. 2,3 &4
- C. 1,2 &3
- D. 1,3 & 4

Answer D

11) Assertion (A): Cohort studies are considered stronger than case-control studies in establishing causality between exposure and disease

Reason (R): In cohort studies, exposure is measured before the occurrence of disease, thereby establishing a clear temporal relationship and reducing recall bias

a) Both A and R are true, and R is the correct explanation of A

b) Both A and R are true, but R is not the correct explanation of A

c) A is true but R is false

d) A is false but R is true

Answer a

12) Assertion (A): Genetic counselling is strongly recommended for couples with a family history of genetic disorders before planning pregnancy

Reason (R): Because genetic counselling primarily focuses on providing emotional support to the couples

a) Both A and R are true, and R is the correct explanation of A

b) Both A and R are true, but R is not the correct explanation of A

c) A is true but R is false

d) A is false but R is true

Answer c

13. Assertion (A): Stratified random sampling generally provides more precise estimates than simple random sampling when studying heterogeneous populations

Reason (R): Stratified random sampling divides the population into strata using age as the only possible stratification variable

- a) Both A and R are true and R is the correct explanation of A
- b) Both A and R are true but R is not the correct explanation of A
- c) A is true but R is false
- d) A is false but R is true

Answer c

14. Assertion (A): Community-based health promotion programs are more effective at achieving sustainable behavioural changes than individual-focused intervention

Reason (R): Community-based approaches address social determinants of health and create supportive environments that facilitate and reinforce healthy behaviour through social networks and community engagement

- a) Both A and R are true and R is the correct explanation of A
- b) Both A and R are true but R is not the correct explanation of A
- c) A is true but R is false
- d) A is false but R is true

Answer a

15. Assertion (A): Foods with a high glycemic index cause a rapid rise in blood glucose levels

Reason (R): This is because high glycemic index foods contain more total carbohydrates compared to low glycemic index foods

- a) Both A and R are true and R is the correct explanation of A
- b) Both A and R are true but R is not the correct explanation of A
- c) A is true but R is false
- d) A is false but R is true

Answer c

Clinical Scenario:

Ms. Sandya is a community health worker working in a semi-urban area with population of 25,000. She notices a rising trend of lifestyle diseases, particularly Type 2 DM and hypertension, among adults aged 30- 40 years. Many residents work in nearby IT companies, leading to sedentary lifestyles. The community also has limited awareness about preventive health measures. Hence, Ms Sandya decides to implement a health promotion and education program

16. Which approach would be MOST effective for initial community health assessment?

- a) Conducting only door-to-door surveys
- b) Reviewing hospital records alone
- C) Using multiple methods including surveys, focus groups and

health records

d) Relying solely on previous years health data

Answer C

17. In planning health education sessions, which of these factors should be her PRIMARY consideration?

a) Using only digital method of communication

b) Scheduling sessions only during weekends

C) Target audience characteristics and preferences

d) Focusing only on disease statistics

Answer c

18. Which strategy would be MOST appropriate to improve participation in health education sessions?

a) Imposing monetary fines for non-attendance

B) Using multiple communication channels and involving community leaders

c) Conduction sessions only at local hospitals

d) Reducing the frequency of sessions

Answer B

19. Which evaluation method would be BEST to measure the

effectiveness of health promotion programme after 6 months?

- a) Recording only the blood pressure reading
- b) Measuring only participant satisfaction
- c) Reviewing only the hospital admission rate
- D) Multiple parameters including behavioural changes, health metrics and participant feedback

Answer d

20. A group of participants suggests incorporating traditional health practices into the program. What should be the approach?

- a) Reject all traditional practices
- b) Accept all traditional practices without evaluation
- C) Evaluate the practices for scientific basis and integrate beneficial ones while educating about harmful ones
- d) Ignore the suggestions completely

Answer c

Gmc ernakulam

22. An investigator wants to study the risk factors of prehypertension among medical students by as case control study.

- a) Prepare an appropriate research protocol for the same including analysis plan? (6 mark)

b) What are the biases that can occur in this study and how can these be avoided?

SUT

1. Sanju is a recent MBBS graduate who is working as a medical officer in a primary health centre. There a number of patients present to her with signs of jaundice. A local traditional medical practitioner tells her about the usefulness of a special plant in the treatment of jaundice. She decides to test plant. Answer the following:

a. What type of study design should she use

b. What are the steps of such a study

+c. How he will analyze the data, that she has gathered
(2+4+4=10)

15. Vitamin A prophylaxis to a child is

A.Health promotion

B.Specific protection

C.Primordial prevention

D. Secondary prevention

Answer B

16. Which of the following is a measure of the burden of disease

in a defined population and effectiveness of interventions?

A Pearl index

B.Disability adjusted life years

C.Dependency ratio

D. Morbidity data

Answer D

17. Incidence can be calculated in

A.Case control study

B.Prospective study

C.Retrospective study

D.Cross-sectional study

Answer B

18. Human anatomical waste is put in

A.Yellow container

B.Red container

C.Blue container

D.Green container

Answer A

19. Herd immunity is not seen in

A.Polio

B.Tetanus

C.Diphtheria

D.Measles

Answer B

Multiple response MCQs:

20. Measures of dispersion

1.Range

2.Mean deviation

3.Standard deviation

4.Mode

A.1 only is correct

B.1 and 2 only are correct

C.1, 2 and 3 only are correct

D. 1, 2, 3 and 4 are correct

Answer C

21. Indicators for Air Quality Index for monitoring of Air pollution

1Sulphur dioxide

- 2 Smoke
- 3 Suspended particles
- 4 Hydrogen sulphide

- A. 1 only is correct
- B. 1 and 2 only are correct
- C. 1, 2 and 3 only are correct
- D. 1, 2, 3 and 4 are correct

Answer C

22. Sources of health information

- 1 Census
- 2 SRS
- 3 NFHS
- 4 DALY

- A. 1 only is correct
- B. 1 and 2 only are correct
- C. 1, 2 and 3 only are correct
- D. 1, 2, 3 and 4 are correct

Answer C

23. Screening test has the following features

- 1 Done on apparently healthy
- 2 It is less accurate
- 3 Test results are arbitrary and final
- 4 It can be used as a basis for treatment

- A. 1 only is correct
- B. 1 and 2 only are correct

- C.1, 2 and 3 only are correct
- D. 1, 2, 3 and 4 are correct

Answer B

24. Autosomal dominant disorders

- 1 Marfan's syndrome
- 2 Achondroplasia
- 3 Down's syndrome
- 4 Turner's syndrome

- A.1 only is correct
- B.1 and 2 only are correct
- C.1, 2 and 3 only are correct
- D. 1, 2, 3 and 4 are correct

Answer B

Assertion Reason MCQs:

25. Assertion (A): Specificity of a screening test is the ability of a test to detect True negatives

Reason (R): Sensitivity of a screening test is the ability of a test to detect True positives

- A) Assertion and Reason are true and reason is the correct explanation of assertion.
- B) Assertion and Reason are true but reason is not the correct explanation of assertion.
- C) If Assertion is true but Reason is false.

D) If both Assertion and Reason are false.

Answer B

26. Assertion (A): Micronutrient malnutrition refers to vitamin and mineral nutritional deficiency diseases.

Reason (R): Micronutrient deficiency is also called hidden hunger.

A) Assertion and Reason are true and reason is the correct explanation of assertion.

B) Assertion and Reason are true but reason is not the correct explanation of assertion.

C) If Assertion is true but Reason is false.

D) If both Assertion and Reason are false.

Answer B

27 Assertion (A): Consanguinity shows a strong association with autosomal recessive pattern of inheritance

Reason (R): Consanguinity provides an opportunity for the rare recessive allele to meet up with itself.

A) Assertion and Reason are true and reason is the correct explanation of assertion.

B) Assertion and Reason are true but reason is not the correct explanation of assertion.

C)If Assertion is true but Reason is false.

D)If both Assertion and Reason are false.

Answer A

28. Assertion (A): Gene therapy is a process of delivery of a segment of DNA encoding for the protein of interest to the target cell by using a vector.

Reason (R):The purpose of gene therapy is replacement of abnormal gene by normal gene

A)Assertion and Reason are true and reason is the correct explanation of assertion.

B)Assertion and Reason are true but reason is not the correct explanation of assertion.

C)If Assertion is true but Reason is false.

D)If both Assertion and Reason are false.

Answer B

29. Assertion (A): Population genetics is the application of principles of epidemiology to genetics.

Reason (R): An important concept in population genetics is Hardy Weinberg equilibrium

A)Assertion and Reason are true and reason is the correct explanation of assertion.

B)Assertion and Reason are true but reason is not the correct explanation of assertion.

C)If Assertion is true but Reason is false.

D)If both Assertion and Reason are false.

Answer B

Clinical scenario based MCQs:

Raman, aged 3 years presents to PHC with decreased vision during evening and night. On Examination, a white patch is seen on the right eye

30. Ocular manifestations of Vitamin A deficiency is collectively called

A Xerophthalmia

B Corneal xerosis

C Wernicke-Korsakoff syndrome

D Cheilosis

Answer A

31. Extra ocular manifestations of Vitamin A deficiency is not

A Follicular hyperkeratosis

B Anorexia

C Growth retardation

D Cassals necklace

Answer D

32. As per WHO classification of Xerophthalmia, XIA represents

A Night blindness

B Conjunctival zerosis

C Bitot's spots

D Comeal xerosis

Answer B

33. Vitamin A deficiency is considered a public health problem if prevalence of night blindness in children between 6 months to 6 years is more than

A 1%

B 5%

C 10%

D 20%

Answer A

34. Rich dietary source of Vitamin A is

A Green and yellow fruits and vegetables

B Vegetable oil

C Butter

D Indian gooseberry

Answer A

Azeezia Medical College

IV) Single response MCQ.

1) In a study every 20th house is selected while sampling. What type of sampling is it?

a) Simple random sampling

B) Systematic random sampling

c) Stratified random sampling

D) cluster sampling

Answer B

2) Blood bag is disposed in:

a) Yellow bag

b) Red bag

C) Blue bag

d) Black bag

Answer A

3) Chairman of ESI corporation is

- a) Prime minister
- B) Union minister of labour
- c) Union minister of H&FW
- d) Union minister of Home affairs

Answer B

4) Presence of ____ indicates biological contamination of water:

- a) Staphylococcus aureus
- b) Clostridia
- c) E. coli
- d) Yersinia Pestis

Answer C

5) Which of the following is not a component of Human Development Index(HDI)

- A) Infant mortality rate
- b) Knowledge
- c) Longevity
- d) Income

Answer A

V) Multiple response MCQ

1) Which of the following criteria need to be fulfilled by an ideal disinfectant:

- i) Broad spectrum
- ii) Uneffected by environment factors
- ii) Should not corrode the surface
- iv) No residual effect on treated surface

- A) I, iii, iii
- B) i, ii, iv
- c) ii, ii, iv
- d) i, ii, iv

Answer A

2) Which of the following screening test are used for breast cancer

- i) Mammography
- iii) Breast self-examination
- iii) Clinical examination
- iv) Ultrasound

- a) i, iii, iv
- b) ii, iii, iv
- c) i, ii, iii
- d) i, ii, iv

Answer C

3) What are the characteristics of Cluster sampling?

- i) Sampling units are groups or clusters
- ii) All members of selected clusters are included in the sample
- iii) Sampling is done without replacement.
- iv) Clusters are randomly selected using sampling methods.

a) i, ii, iii

b) ii, iii, iv

c) iii, iv, i

d) iv, i, ii

Answer A

4) Choose the most appropriate options for point source epidemic.

- i) Person to person transmission
- ii) All cases develop within one incubation period
- lii) Epidemic curve rises and falls rapidly
- iv) Clustering of cases within narrow interval of time

a) i, ii, iii

b) i, ii, iv

c) ii,iii, iv.

d)i, iii, iv

Answer C

5) Which of the following are goals of primary prevention

i) Reduce risk factor

ii) Health promotion

iii) Prevents disease

iv) Rehabilitation

a)iv,i,ii

b)i, ii, iii

c)ii, iii, iv

d)iii, iv, i

Answer b

VI) Assertion and Reason Type Questions

1) Assertion-A: John snow regarded as the father of Modern Epidemiology

Reason-R: John snow identified the source of a cholera outbreak in London.

- a) Both assertion and reason are true and the reason is the correct explanation of assertion.
- b) Both assertion and reason are true but reason is not the correct explanation of the assertion
- c) Assertion is true and reason is false
- d) Assertion is false and reason is true

Answer A

2)Assertion-A: Primary health care is a revolutionary idea originated in Alma Atta conference in 1978.

Reason-R: Conference was convened by World Bank.

- a) Both assertion and reason are true and the reason is the correct explanation of assertion.
- b) Both assertion and reason are true but reason is not the correct explanation of the assertion
- c) Assertion is true and reason is false
- d) Assertion is false and reason is true

Answer C

3)Assertion-A: Social determinants are a very vital part of health.

Reason-R: Man is a social animal and many of the diseases is having social determinants.

- a) Both assertion and reason are true and the reason is the correct explanation of assertion.
- b) Both assertion and reason are true but reason is not the correct explanation of the assertion
- c) Assertion is true and reason is false
- d) Assertion is false and reason is true

Answer A

4) Assertion-A: Dengue fever is prevalent in tropical regions.

Reason-R: High temperature and humidity facilitate human to human transmission.

- a) Both assertion and reason are true and the reason is the correct explanation of assertion.
- b) Both assertion and reason are true but reason is not the correct explanation of the assertion
- c) Assertion is true and reason is false
- d) Assertion is false and reason is true

Answer C

5) Assertion-A: Pneumoconiosis is irreversible

Reason-R: Treatment involves medication and lifestyle changes.

- a) Both assertion and reason are true and the reason is the correct explanation of assertion.
- b) Both assertion and reason are true but reason is not the correct explanation of the assertion
- c) Assertion is true and reason is false
- d) Assertion is false and reason is true

Answer A

VII) Clinical case scenario based MCQ

A 7 year old girl from rural area presents with bilateral conjunctival foamy lesions and complaints of night blindness

1) What is the likely diagnosis?

- a) Bitot's spots
- b) Conjunctival carcinoma
- c) Pinguecula
- d) Pterygium

Answer A

2) What is the primary symptom associated with this condition.

- a) Painful eyes
- b) Blurred vision
- c) Night blindness
- d) Eye discharge

Answer c

3) Which of the following is a complication of untreated case.

- a) Corneal ulcers
- b) Conjunctival xerosis
- c) Keratomalacia
- d) All of the above

Answer d

4) Treatment of this condition include administration of Retinol palmitate

- a) 200,000 I.U for two successive days
- b) 200,000 I.U once only
- c) 100,000 I.U once in a month
- d) 50,000 I.U once in a month

Answer A

5) What is the recommended daily allowance (RDA) of vitamin A?

- a) 200-400 microgram/day
- b) 400-800 microgram/day.
- c) 800-1200 microgram/day
- d) 1200-1600 microgram/day

Answer b

Pushpagiri medical college

Single response type-

1. Which of the following mosquito species is primarily responsible for transmitting malaria in India?

- a. Culex
- b. Aedes
- c. Anopheles
- d. Mansonia

Answer c

2. Which of the following is NOT a key principle of the Primary Health Care approach, as emphasized in the sources?

- a. Community participation
- b. Intersectoral coordination
- c. Centralization of health services
- d. Appropriate technology

Answer c

3: What is the primary mode of transmission for diseases spread by houseflies?

- a. Airborne transmission
- b. Vector-borne transmission
- c. Water-borne transmission
- d. Mechanical transmission

Answer d

4 Which of the following is NOT a measure of central tendency?

- a. Mean
- b. Range
- c. Mode
- d. Median

Answer b

5. Family, which lags behind rest of the community, is known as:

- a. Communal family
- b. Elementary family
- c. Problem family
- d. Broken family

Answer c

Multiple response type-

6. Which of the following are considered social determinants of health?

- a. Genetic predisposition to certain diseases
- b. Access to safe water and sanitation
- c. Socioeconomic status
- d. Cultural beliefs and practices
- e. Availability of quality healthcare services

Answer b, c, d

7. Which of the following is/are didactic methods of health communication?

- a. Group discussion
- b. Workshop
- c. Demonstration
- d. Lecture
- e. Panel discussion

Answer d

8. Which of the following are advantages of cohort studies?

- a. Relatively inexpensive and quick to conduct
- b. Can establish a temporal relationship between exposure and outcome
- c. Suitable for studying rare diseases
- d. Useful for studying multiple outcomes related to a single exposure
- e. Less prone to bias compared to case-control studies

Answer b, d, e

9. PQLI includes:

- a. MMR
- b. IMR

- c. Life expectancy at birth
- d. Life expectancy at 1 yr. age
- e. Literacy

Answer b, c, e

10. Orthotoulidine test done for estimation of:

- a. Free chlorine
- b. Combined chlorine
- c. Fluoride
- d. Iodine content

Answer a, b

Assertion reason type

11: Assertion (A): The *Aedes aegypti* mosquito is a significant public health concern in India, in urban areas especially

Reason (R): *Aedes aegypti* is a domestic breeder, laying its eggs in artificial collections of water commonly found in and around human dwellings.

- a. Both A and R are true, and R is the correct explanation of A.
- b. Both A and R are true, but R is not the correct explanation of A.

c. A is true, but R is false.

d. A is false, but R is true.

Answer A

12: Assertion (A): Isolation is a crucial public health measure for controlling the spread of communicable diseases.

Reason (R): Isolation involves restricting the movement of individuals who have been exposed to a communicable disease but are not yet showing symptoms.

a. Both A and R are true, and R is the correct explanation of A.

b. Both A and R are true, but R is not the correct explanation of A.

c. A is true, but R is false.

d. A is false, but R is true.

Answer c

13: Assertion: All biomedical waste should be disposed of in yellow containers.

Reason: Color-coding helps in the proper segregation and management of different categories of biomedical waste.

a. Both A and R are true, and R is the correct explanation of A.

b. Both A and R are true, but R is not the correct explanation of A.

c. A is true, but R is false.

d. A is false, but R is true.

Answer d

14: Assertion: The chi-square test is a statistical test used to compare observed frequencies with expected frequencies to determine if there is a significant association between two categorical variables.

Reason: The concept of 'statistical significance implies that an observed result is unlikely to have occurred by chance alone and suggests a real effect or association.

a. Both A and R are true, and R is the correct explanation of A

b. Both A and R are true, but R is not the correct explanation of A.

c. A is true, but R is false.

d. A is false, but R. is true.

Answer a

Assertion: Sickness absenteeism, or absence from work due to illness, is primarily an individual health issue with minimal impact on industrial productivity.

Reason: High rates of sickness absenteeism can disrupt workflow, increase production costs and negatively affect a company's overall performance.

- a. Both A and R are true, and R is the correct explanation of A.
- b. Both A and R are true, but R is not the correct explanation of A.
- C. A is true, but R is false.
- d. A is false, but R is true.

Answer d

Scenario based MCQ (1 scenario with 5 questions) -

16. A group of medical students is concerned about the high number of oral cancer cases admitted to the surgery department of their teaching hospital. They decide to investigate the risk factors associated with oral cancer in their community.

i. What type of epidemiological study would be most appropriate for the students to undertake?

- a) Cross-sectional study
- b) Case-control study
- c) Cohort study
- d) Randomized controlled trial
- e) Ecological study

Answer b

II. Which of the following is a crucial step in the methodology of a case-control study?

- a. Randomly assigning participants to exposure groups.
- b. Selecting controls who are similar to cases in all aspects except for the disease.
- c. Following participants over time to observe disease development.
- d. Manipulating the exposure of interest to assess its impact on disease occurrence.
- e. Conducting a census to determine the population size.

Answer b

III. Which of the following is a potential source of bias in a case-control study?

- a) Using a standardized questionnaire for data collection.
- b) Recall bias, where cases may remember past exposures differently than controls.
- c) Analyzing data using appropriate statistical methods.
- d) Selecting cases and controls from the same population.
- e) Blinding the investigators to the case-control status of participants.

Answer b

IV. The students had a strong association between chewing tobacco and oral cancer. Can they definitively conclude that chewing tobacco causes oral cancer based on this study alone?

- a) No, a case-control study can only suggest an association, not definitively prove causation.
- b) Yes, a strong association is sufficient evidence to establish causation.
- c) Yes, as long as the study was well-designed and controlled for potential confounders
- d) No, further experimental studies are required to prove causation.
- e) Yes, if the study had a large sample size.

Answer a

V. Which of the following would be a suitable measure to express the students findings regarding the association between chewing tobacco and oral cancer?

- a) Incidence rate
- b) Prevalence rate
- c) Odds ratio
- d) Attributable risk

e) Relative risk

Answer c

MES medical college

1. During a Family Adoption Program (FAP) visit, MBBS students identified a high number of cases of cervical cancer in their allotted rural area. Concerned about the prevalence, they decided to investigate potential risk factors associated with cervical cancer. (2+5+3)

a) What type of study would they have to undertake?

Substantiate your answer.

b) Describe the steps of conducting such a study?

c) What potential biases that could affect the study?

Amala Institute of Medical Sciences

Q) A funded multicentric study wants to study the effect of first trimester anemia of pregnant ladies on the birth weight of their babies.

a) Suggest an appropriate study design for this and why?

b) Frame a good Research Question and objectives for this project

c. Prepare a detailed protocol for conducting this study.

d. What are the advantages and disadvantages of this design?
(2+2+3+3)

IV MCQ

Set A-Assertion and reason

1. Assertion-Anopheles mosquitoes spread Malaria

Reason- Anopheles Mosquito breeds in small water collections

Code A. Both Assertion and reason are correct and R is a correct explanation of assertion

Code B. Both Assertion and Reason are correct but R is is not a correct explanation of assertion A

Code C. Assertion A is true and Reason R is false

Code D. Assertion A is false and eason R is true

Answer A

2. Assertion-Incidence can be calculated in Cohort studies,
Reason-Cohort studies are retrospective studies.

Code A. Both Assertion and reason are correct and R is a correct explanation of assertion

Code B. Both Assertion and Reason are correct but R is is not a correct explanation of assertion A

Code C. Assertion A is true and Fason R is false

Code D. Assertion A is false and eason R is true

Answer C

3. Assertion: Healthcare facilities should prioritize infection control measures. Reason: Effective infection control practices help prevent the spread of diseases within healthcare settings.

Code A. Both Assertion and reason are correct and R is a correct explanation of assertion

Code B. Both Assertion and Reason are correct but R is is not a correct explanation of assertion A

Code C. Assertion A is true and Fason R is false

Code D. Assertion A is false and eason R is true

Answer A

4. Assertion: Community screening for tuberculosis involves active case finding in various settings.

Reason: Screening initiatives aim to identify individuals with tuberculosis, including those who might not seek medical care on their own

Code A. Both Assertion and reason are correct and R is a correct explanation of assertion

Code B. Both Assertion and Reason are correct but R is is not a correct explanation of assertion A

Code C. Assertion A is true and Fason R is false

Code D. Assertion A is false and eason R is true

Answer A

5. Assertion: Randomization is the heart of RCT

Reason: Randomization always helps to avoid recall bias.

Code A. Both Assertion and reason are correct and R is a correct

explanation of assertion

Code B. Both Assertion and Reason are correct but R is not a correct explanation of assertion A

Code C. Assertion A is true and Reason R is false

Code D. Assertion A is false and Reason R is true

Answer C

Set B- Multiple Response Questions. Select All That Apply

6. Which among the following is correctly matched

1. Lathyrus-kesari dhal
2. Epidemic dropsy-agremonia Mexicana
3. Aflatoxicosis-claviceps
4. Endemic ascites -Crotalaria Jhunjhunja
5. Ergot fungus-aspergillus

a. 1,2,4

b. 3,4,5

c. 2,3,4

d. 1,2,3

e. 3,5

Answer a

7. Kerala state has better health indicators as compared to many other states in Kerala. This is often dubbed as the Kerala Model. Pick all the reasons for Kerala achieving it

1. High female literacy rate
2. Land reforms
3. Utilization of health care facility
4. Low density of population
5. Good access to health facilities

a. 1,2,4,5

b. 1,2,3,5

c. 2,3,4,5

d. 1,2,4

e. 45

Answer b

8. Pick all the true statements regarding rapid sand filter

1. occupies very little space
2. chemical coagulation and sedimentations
3. washing is by back washing

4 removal of turbidity of water is good

5. offers more flexibility in operation

a. 1,2,3,4,5

b. 1345

c. 1,2,3,4

d. 123

e. 3,5

Answer a

9. Pick all the methods of mechanical artificial ventilation

1. Exhaust ventilation

2. Plenum Ventilation

3. Balanced ventilation

4. Airconditioning

5. Oronation

a.1,2,3,4

b.1,3,4,5

c.1,2

d. 123

e. 35

Answer a

10. Pick the diseases spread by Aedes Mosquito

1. Yellow fever
2. Dengue
3. Malaria
4. Japanese encephalitis
5. West Nile fever

a. 1,2,3,4

b. 1,3,4,5

c. 1,2

d. 123

e. 35

Answer c

Set C-Single Response

11. Net protein Utilization value is maximum for

- a. Egg
- b. Milk
- c. Soyabean
- d. Pulses

e. Fish

Answer a

12. All are examples of probability sampling except

- a. Simple random sampling
- b. Multistage random sampling
- c. Snow ball sampling
- d. Systematic random sampling
- e. Stratified random sampling

Answer c

13. The Unit of study is population in

- a Cohort study
- b. Ecological study
- c. Case Control study
- d. RCT
- e. Case Series

Answer b

14. India is which stage of the demographic cycle

- a late expanding phase
- b. early expanding phase
- c. high static vary
- d. low stationary
- e declining

Answer a

15. A first generation Intra uterine device is

- a. Lippes loop
- b. Copper T
- c. Nova T
- d. Multiload devices
- e. Progestasert

Answer a

Set D-Clinical Scenario Based MCOs (Select one correct answer)

16. In a tropical area, cases of malaria have surged during the rainy season. The local health department is trying to implement vector control measures to reduce the spread. Which intervention specifically targets the primary vector for malaria?

- a. Spraying residual insecticide on indoor walls
- B. Distributing antibiotics to the population
- c. Conducting health education campaigns about hand washing
- d. Improving the nutritional status of children
- e. Increasing the use of face masks during outdoor activities

Answer a

17. A factory worker complains of hearing loss after years of exposure to loud machinery noise. What is the most effective preventive strategy to reduce this occupational hazard?

- a. Regular medical check-ups
- b. Providing ear protection devices
- c. Health education sessions on ear hygiene

- d. Increasing ventilation in the workplace
- e. Rotation of work shifts

Answer b

18. In a screening program for diabetes, the sensitivity of a test is found to be 80%. What does this indicate?

- a. 80% of non-diabetics are correctly identified
- b. 80% of diabetics are correctly identified
- c. 80% of the screened population will develop diabetes
- d. The test has an 80% chance of being reliable
- e. The test is cost-effective

Answer b

19. In a demographic survey, a health officer wants to estimate the growth rate of a population. Which data point would be most useful?

- a. Crude Death Rate
- b. Total Fertility Rate
- c. Sex Ratio
- d. Age-specific Mortality Rate
- e. Dependency Ratio

Answer b

20. A case-control study investigates lung cancer among smokers and non-smokers. The measure of association is

- a. Risk ratio
- b. Attributable risk
- c. Odds ratio

- d. Hazard ratio
- e. Incidence rate

Answer c

Al Azhar

1. The district health officer is concerned that there may be an increase in new-onset diabetes among young individuals aged 20-45 years after COVID-19 infection. It was decided to conduct an epidemiological investigation to study the risk of getting diabetes after Covid 19 infection.

a) What would be an appropriate study design to test this hypothesis. Justify with reasons. (2)

Cohort

b) Enumerate and explain the steps of the study with outcome measures of association in the study for drawing inference. (5)

c) Enlist any two advantages and disadvantages of this study design. (3)

GMC Kollam

1. Population of a Primary Health Centre (PHC) in the rural area is.

a) 10000

b) 20000

c) 30000

d) 5000

Ans d

2. The Medical Officer in charge of a PHC devotes afternoon hours in

- a) seeing patients in outpatient department
- b) supervising the field work
- c) goes home since there is no OPD in the afternoon
- d) takes in patient rounds

Ans b

3. The pneumoconiosis which is prevalent in relation to textile industry is

- a) silicosis
- b) bagassosis
- c) byssinosis
- d) asbestosis

Ans c

4. Which of the following is NOT a benefit under the ESI scheme

- a) medical benefit

- b) sickness benefit
- c) maternity benefit
- d) reimbursement benefit

Ans d

Answer the following 5 questions (Question number 5 to 9) based on the scenario given below

There are media reports, quoting the National Crime Reports Bureau statistics that Kollam is one of the districts with high suicide rates. District Collector of Kollam convenes a meeting of stakeholders from all the Departments to develop intervention strategies to reduce suicides in the district.

5. What is the most prevalent mental health morbidity, which is to be targeted for early diagnosis and treatment, to prevent suicides?

- a) personality problems
- b) schizophrenia
- c) learning disorders
- d) depressive disorder

Ans d

6. The District Collector entrusts the Team consisting of the psychiatrist, social worker and pharmacist, who visit PHC/CHCs on a regular monthly basis, to take the lead in this initiative.

Identify such a team which is functional now in all districts in Kerala as

- a) Taluk hospital team
- b) FRU team
- c) DMHP team
- d) IMA team

Ans c

7. All the following are included as Life Skills by the WHO, for training in schools and colleges EXCEPT

- a) self awareness and empathy
- b) critical thinking and creative thinking
- c) intelligence and career training
- d) decision making and problem solving

Ans c

8. All the following are true, as messages to be included in health education in schools and colleges, EXCEPT

- a) Nicotine produces severe dependence
- b) Beer can produce alcohol dependence
- c) No level of alcohol consumption is safe for health

d) e cigarettes are safe

Ans d

9. Identify the triennial theme for World Suicide Prevention Day(September 10) for 2024-2026, which aims to raise awareness about reducing stigma and encouraging open conversations to prevent suicides, shifting from a culture of silence and stigma to one of openness, understanding, and support.

a) changing the narrative on Suicide

b) depression-let's talk

c) mental health is a human right

d) work place mental health

Ans a

10. Which of the following represents the killing power of a disease?

a) Incidence

b) Secondary attack rate

c) Case fatality rate

d) Specific death rate

Option c

11. The following are instances of Socialization

I)Children going to school

ii. Conquest

iii. Internship training program of doctors

iv. Culture contact through trade and insurance

A. I and iv

B. Ii and iv

C. Ii,iii, iv

D. I,ii,iii

(Option d)

17. The phase of family life cycle which begins with the birth of last child and child leaves home is termed as

a. Extension

b. Contraction

c. Completed contraction

d. Complete extension

(Option d)

18. Which are the indicators used in calculating Global Hunger Index?

I)Undernourishment

ii. Child underweight

Iii)Child mortality

iv. Infant mortality

- a.i, ii and iv
- b. ii and iv
- c. ii, iii, & iv
- d. i, ii and iii

Option d

19. Which is the most suitable option for expressing Disability-adjusted life year (DALY

- a. Years of life lost due to premature death
- b. Number of years an individual is expected to live free of disability
- c. Number of years of life that would be added by intervention
- D. Number of years lost due to ill health, disability or premature death

Option d

20. Which are the conditions in which a cross-over type of study design is not suitable?

- I. Drug of interest cures the disease
- ii. Drug is effective only during a certain stage of disease

iii. Disease changes radically during study period

iv. Chronic diseases

a. I,ii,iii

b. i, ii and iv

c. ii, iii, & iv

d. I,iii, iv

(Option a)

21. The number of water holding containers with Aedes larvae per 100 houses is known as

a) Breteau index

b) House index

c) Container index

d) Container specific index

Option a

22. Where does the funding for the ESI scheme come from?

a. Employer

b. Employee

c. Government Grants

d.All the above

Option d

23. Choose the most appropriate options regarding a point source epidemic.

- i. Predominantly person-to-person transmission
- ii. All cases develop within one incubation period
- iii. The epidemic curve rises and falls rapidly
- iv. Clustering of cases within a narrow interval of time.

- a. i,ii and iii
- b. i, ii and iv
- c. ii, iii, & iv
- d. i,ii & iv

Option c

24. Which among the following are characteristic of a standard normal curve

- i. The total area of the curve is 1
- ii. It is bell shaped and symmetrical
- iii. Its mean is zero
- iv Its standard deviation is zero

- A. ii and iii
- b. i, ii and iv
- c. ii, iii, & iv
- d. iii & iv

Option a

For question numbers 25 to 29, give answers based on the given

scenario;

A community outbreak has been reported in a suburban area where many children, aged 2-10 years, have developed fever and a characteristic rash. The local health department has confirmed that several children have presented to the paediatric clinic with similar symptoms. Epidemiological investigations suggest that the majority of cases occurred in a local day care center, with some cases in children attending nearby schools.

25. In an infectious disease, the incubation period refers to:

A. The time interval between invasion by an infectious agent and appearance of the first symptom

B. The time it takes for the rash to appear after fever onset

c. The time between the first case being diagnosed and the last case presenting

d. The time from symptom onset in a primary case to symptom onset in a secondary case

Option a

26. Which of the following best describes the serial interval in the context of an outbreak?

a. The average time between exposure and symptom onset in the primary case

B. The time between the onset of symptoms in a primary case and the secondary case

C. The time from infection to full recovery in an individual case

d. The time between exposure and recovery in a population

Option b

27. The secondary attack rate in this outbreak is defined as

a. The proportion of individuals exposed to the virus who develop symptoms

b. The proportion of individuals who require hospitalization after infection

C. The probability that a susceptible individual develop the disease after exposure to a primary case

D. The symptomatic individuals in the outbreak who develop complications

Option c

28. In the outbreak described, herd immunity would best describe the phenomenon where

a. All children in the community become immune after exposure to the virus

B. A sufficient proportion of the population is immune, preventing the spread of the disease, even among non-immune individuals

c. Only symptomatic individuals can spread the disease, preventing further transmission

d. An outbreak stops once all susceptible individuals have been infected

Option b

29. In a community outbreak with a high secondary attack rate, which of the following measures would likely help reduce further transmission?

- a. Immediate isolation of symptomatic individuals and vaccination of susceptible contacts
- b. Encouraging symptomatic individuals to continue attending school or daycare
- c. Delaying vaccination efforts until after the outbreak ends.
- d. Administering antiviral treatment to all affected children, regardless of severity

Option a

For question numbers 30 to 34, a statement of Assertion (A) is followed by a statement of Reason

- a. Both A and R are true and R is the correct explanation of A
- b. Both A and R are true, but R is not the correct explanation of A
- c. A is true, but R is false
- d. A is false, and R is true

30. Assertion: Caution should be exercised against the mega-dose consumption of Vitamin E

Reason: Cytotoxic effect of Vitamin E on human lymphocytes in vitro at high concentrations has been reported

Correct Choice: a

31. Assertion: The practice of primary health care involves a good deal of deprofessionalization of medicine

Reason: Laymen including community volunteers have come to play a prominent role in the delivery of health care

Correct Choice: a

32. Assertion: Many epidemiologists prefer case control over cohort studies to assess risk factors

Reason: Case control studies are less prone to systematic errors

Correct Choice: C

33. Assertion: Boiling for a few minutes is sufficient to make clear water potable
Reason: Water will be sterilised by boiling for a few minutes

Correct Choice: C

34. Assertion: In a person without a history of Rabies Vaccination, for postexposure prophylaxis of Category III Animal bite, Rabies Immunoglobulin is administered along with Rabies Vaccine

Reason: When an antigen is administered for the first time to a person, who has never been exposed to it, there is a latent period of induction of 3 to 10 days before antibodies appear in the blood.

Correct Choice: a

A 3-year-old child presents to the outpatient clinic with complaints of generalized swelling, irritability, and poor growth. The child's mother reports that the child has a poor appetite, has been losing weight over the past few months, and has been suffering from recurrent infections. On examination, the child has a bloated abdomen, pitting oedema on both lower limbs, depigmented hair, and a pale appearance. The child appears to be severely underweight for their age.

Following questions from (1-5) are based on the clinical scenario given above: (Single response only)

1. What is the most likely diagnosis for this child"

a) Marasmus

(b) Kwashiorkor

C) Rickets

d) Hypothyroidism

Ans b

2. According to the WHO classification, severe acute malnutrition (SAM) is diagnosed when a child has a weight-for-height Z-score of

a) Less than -1

b) Less than -2

(C) Less than -3

d) Less than

Ans c

3. Which is the first indicator of PEM

(a) Underweight for age

b) Low Height for age

c) Low Mid arm circumference

d) Wasting

Ans a

4. Which of the following is the indicator of undernutrition over a long period of time

a) Underweight

B) Stunting

c) Wasting

d) Oedema

Ans b

5. Which of the following is the most important factor in preventing severe Protein-Energy Malnutrition in infants?

a) Early introduction of complementary feeding

- (b) Exclusive breastfeeding for 6 months
- c) Timely immunization
- d) Routine vitamin A supplementation

Ans b

II. Questions 6 to 10 are single response type MCQs

6. What does an NRR of 1 indicate?

- (a) A stable population where each generation exactly replaces itself
- b) A declining population
- c) A growing population
- d) High fertility rates

Ans a

7. Epidemic Dropsy is caused by

- a) Beta Oxalyi Amino Alanine (BOAA)
- b) Aflatoxin
- C) Sanguinarine
- d) Pyrrolizidine alkaloids

Ans c

8. Which of the following is an example of an autosomal recessive disorder?

- a) Huntington's chorea
- B) Cystic fibrosis
- C) Vit. D resistant rickets
- d) Hemophilia A

Ans b

9. The Chi-Square test is most appropriate for analyzing:

- a) Relationship between age(years) and blood pressure (in mm of Hg)
- (b) Association between smoking status (smoker/non-smoker) and lung cancer status (yes/no)
- C) Difference in means of hemoglobin levels (in g/dL) between two groups
- d) Association between height (in meter) and weight (in kg)

Ans b

10. Which principle of health education emphasizes engaging people in identifying their health problems and developing solutions and plans to work them out?

- A) Principle of credibility

b) Principle of participation

C) Principle of feedback

d) Principle of reinforcement

Ans b

III. Question numbers (11-15) consists of two statements: Assertion (A) and reason (R). Answer these questions by selecting the appropriate options given below.

11. Assertion (A): Kerala health care system can be considered as an yardstick for judging health status in the country

Reason (R): Kerala has demonstrated that a democratic system with a strong political commitment to equitable socioeconomic development, high levels of health can be achieved on the modest levels of income

Options:

- a) Both A and R are true, and Both Assertion (A) and Reason (R) Reason (R) is the correct explanation of Assertion (A)
- b) Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of Assertion (A).
- c) Assertion (A) is true, but Reason (R) is false.
- d) Assertion (A) is false, but Reason (R) is true.

Ans a

12. Assertion (A): A screening test with high sensitivity have high false negatives.

Reason (R): Sensitivity is defined as the proportion of true

positives correctly identified among all those with the disease.

Options:

- a) A and R are true, and R is the correct explanation of A.
- b) A and R are true, but R is not the correct explanation of A
- c) A is true, but R is false.
- d) A is false, but R is true.

Ans d

13. Assertion (A): The "web of causation" model helps in understanding the complex interplay of factors leading to disease.

Reason (R): The web of causation is a linear model that identifies a single primary cause of disease

Options:

- a) A and R are true, and R is the correct explanation of A
- b) A and R are true, but R is not the correct explanation of A
- c) A is true but R is false.
- d) A is false, but R is true.

Ans c

14. Assertion (A): Incidence is a measure of new cases of a

disease occurring in a specified population during a defined period.

Reason (R): Incidence helps in understanding the burden of existing cases in the population.

Options:

- a) A and R are true, and R is the correct explanation of A.
- b) A and R are true, but R is not the correct explanation of A.
- c) A is true, but R is false.
- d) A is false, but R is true.

Ans c

15. Assertion (A): All Vaccine vials should ideally be freezer. deep stored

Reason (R): Freezing certain vaccines, such as DPT and Hepatitis B, can damage their effectiveness.

Options:

- a) A and Rare true, and R is the correct explanation of A.
- b) A and Rare true, but R is not the correct explanation of A.
- c) A is true, but R is false.
- D)A is false, but R is true.

Ans d

IV. Question numbers (16-20) are multiple response type questions. Read the statements & mark the answers appropriately.

16. Which of the following statements about the history of public health are correct?

1. The sanitary movement in the 19th century laid the foundation for modern public health.
2. The discovery of germ theory by Louis Pasteur and Robert Koch shifted the focus of public health from sanitation to disease causation
3. Public health efforts during the Industrial Revolution were focused solely on disease treatment rather than prevention.
4. The Alma-Ata Declaration of 1978 emphasized primary health care as a strategy for achieving "Health for All"

Options:

- a) Only 2 is correct.
- b) 1, 2, and 3 are correct
- C) 1, 2 and 4 are correct
- D) All are correct

Ans c

17. Which of the following statements about major concepts in community diagnosis are correct?

1. It primarily focuses on clinical examination of individuals rather than assessing population-level health indicators
2. Community diagnosis involves identifying the health needs and problems of a specific population.

3. Community diagnosis uses epidemiological methods to risk factors measure disease be burden and identify

4. It is a continuous process aimed at planning, implementing, and evaluating public health interventions.

Options:

A) Only 1 and 3 are correct

B) 2, 3, and 4 are correct

C) 2 and 4 are correct

d) All are correct

Ans b

18. Which of the following statements about disease transmission are correct?

1. An epidemic is defined as a disease occurring at a constant, expected level in a population.

2. Direct transmission occurs through contact, droplet spread, or exposure to infectious secretions

3. A pandemic refers to an epidemic that spreads across multiple countries or continents, affecting a large number of people.

4. Time gap between onset of primary case and secondary case is called as serial interval

Options:

a) Only 2 and 3 are correct

b) 1, 2, and 3 are correct

C)2, 3, and 4 are correct

D)All are correct

Ans c

19. Which of the following statements about Adverse Events Following Immunization (AEFI) are correct?

1. AEFI refers to any untoward medical occurrence following immunization, whether or not it is related to the vaccine

2.All AEFIs are directly caused by the vaccine and are a sign of vaccine failure.

3. Anaphylaxis is a severe, immediate allergic reaction that is considered a serious AEFI and requires immediate medical attention.

4. AEFI surveillance is important for monitoring vaccine safety and identifying any patterns or rare adverse reactions

Options:

A)Only 1 and 3 are correct

(b) 1,3, and 4 are correct

c) 2, 3, and 4 are correct

d) All are correct

Ans b

20. Which of the following statements about Randomized Controlled Trials (RCTs) are correct?

1. In an RCT, participants are randomly assigned to either the treatment or control group to minimize bias
2. The primary strength of an RCT is its ability to establish a cause-and-effect relationship between an intervention and an outcome.
3. RCTs are always conducted on large sample sizes to ensure statistical significance.
4. Blinding in RCTs helps to reduce performance bias and detection bias by preventing participants and/or researchers from knowing the group assignment.

Options:

(a) 1, 2, and 4 are correct

B) 1, 3, and 4 are correct

c) 2, 3, and 4 are correct

d) All are correct

Ans a

22. An investigator wants to study the risk factors of prehypertension among medical students by as case control study.

a) Prepare an appropriate research protocol for the same including analysis plan? (6 mark)

b) What are the biases that can occur in this study and how can these be avoided. (4 marks)

KMCT

1. Dr. Kannan is the medical officer of Chooloor PHC in Chathamangalam panchayath. In the NCD history he recently observed many people Ider PHC in Chathi 25 kg/m and few of them gave a history of consuming fast food. Heople identified with BMI 25 is iny association between these.

(2+5+3=10marks)

a. What study design should the medical officer use? Justify your answer.

b. What is the framework for such a study? Explain the steps in conducting the study.

c. What is bias? What bias can occur in this study?

Karuna Medical College

Precise Answers

1. List four principles of health education

Answer 1) Credibility, interest, motivation, participation, comprehension, reinforcement, learning by doing, known to unknown

2. Write the differences between isolation and quarantine

Answer 2) Isolation- separate those with disease from those who are healthy.

Quarantine- restrict movement of well persons who may have been exposed to a communicable disease.

3. Write the components of Disability Adjusted Life Years (DALY)

Answer 3) $YLL + YLD = DALY$

YLL=Years of life lost

YLD=Years lived with disability

4. What is the best method for teaching preparation of ORS?

Answer 4) Demonstration

5. Write the theme for World Health Day 2024

Answer 5) My Health, My Right

6. Expand PERT and CPM

Answer 6) Program Evaluation and Review Technique, Critical Path Method

7. List 4 effects of noise pollution.

Answer 7) Hearing loss, irritation, hypertension, sleep disturbances, aggression.

8. Define Eligible Couple

Answer 8) Newly married couple wherein the wife is in the reproductive age group 15 to 45 years.

9. List 4 vaccine preventable disease

Answer 9) Poliomyelitis, Diphtheria, Pertussis, Mumps, Tetanus, Measles, Rubella etc

10. Expand NAPSE

Answer 10) National Action Plan for Snakebite Envenoming

MCQs

1. True about Reference Indian male is

- a) Weight 60 kg
- b) BMI 20.3
- c) Height 1.61 m
- d) 8 hours sleep

Answer b

2. All are primary levels of prevention except?

- a) Health promotion
- b) specific-protection
- c) Early diagnosis and treatment
- d) Immunization

Answer c

3. ICDS does not cover

- a) Nutritional Supplementation
- b) Formal education
- c) Health education
- d) Immunization

Answer b

4. The socio-economic housing scale developed for rural set up

- a) Pareek
- b) Kuppuswami
- c) Bhore
- d) Adson's scale

Answer a

5. Normal range of BMI Asian individual is

- a) 18.5 to 24.99
- b) 22.5 to 24.99
- c) 18.5 to 22.5
- d) 18.5 to 22.9

Answer a

6. Which of the following is known as the "Heart of ICDS system"?

- a) Mother and children
- b) CDPO

- c) Primary Health Centre
- d) Anganwad

Answer d

7. Which of the following vaccine is not administered at birth

- a) OPV
- b) BCG
- c) Hepatitis B
- d) Hib

Answer d

8. At primary health centre (PHC) level vaccines are stored in the

- a) cold box
- b) ILR
- c) Deep freezer
- d) walk in cold room

Answer b

9. BCG vaccination is given

- a) prodermally
- b) subcutaneously
- c) intramuscularly
- d) intradermally

Answer d

13. How many icepacks are used to line a vaccine carrier

- a) 2
- b) 3
- c) 4
- d) 6

Answer c

14. According to WHO exclusive breast milk is given upto:

- a) 6 months
- b) 4 months
- c) 8 months
- d) 10 months

Answer a

12. Which of the following is known as "Father of Public Health"

- a) Tuberculosis
- b) cholera
- c) John snow
- d) Louis Pasteur

Answer b

13. World Tuberculosis Day Observed on

- a) 4 February
- b) 7 April
- c) 24 March
- d) 31 May

Answer c

14. Which vaccine is not contraindicated in pregnancy

- a) Rubella
- b) varicella
- c) Rabies
- d) Measles

Answer c

15. Which of the following is called first immunization of the baby

- a) colostrum
- b) Handing over the baby to mother
- c) OPV
- d) DPT+BCG

Answer a

16. The additional energy requirement per day for a pregnant woman in India is

- a)350 kcal
- b)520 kcal
- c) 550kcal
- d)600 kcal

Answer a

17) Highest protein content is in

- a) Red gram

- b) Black gram
- c) Bengal gram
- d) Soya bean

Answer d

18) which of the following methods is used for estimation of chlorine demand of water

- a) chlorometer
- b) Horrock's apparatus
- c) Double pot method
- d) Berkefeld filter

Answer b

19) Modified Kuppuswami Scale include all criteria for socioeconomic status except:

- a) Income of family per month
- b) Education of head of family
- c) Occupation of head of family
- d) Income of head of family

Answer d

20) Hidden Hunger term refers to deficiency of

- a) Macro nutrients
- b) Vitamins
- c) Calories & Proteins
- d) Calories alone

Answer b

Azeezia Remedial Question Paper

15. What is the primary focus of primordial prevention?

- (a) Preventing exposure to risk factors
- (b) Early diagnosis and treatment
- (c) Rehabilitation
- (d) Surveillance

Answer a

16. Which of the following is the best indicator of acute malnutrition in children?

- (a) Weight-for-height
- (b) Weight-for-age
- (c) Height-for-age
- (d) Body Mass Index

Answer a

17. Which color-coded bag is used for disposing of infectious waste?

- (a) Red
- (b) Yellow

(c) Blue

(d) Black

Answer b

18. Which is NOT an essential element of health communication?

(a) Message clarity

(b) Literacy level of the audience

(c) Personal bias

(d) Feedback mechanism

Answer c

19. Which of the following is NOT a component of primary healthcare?

(a) Health education

(b) Immunization

(c) Rehabilitation services

(d) Maternal and child health

Answer c

V. Multiple response MCQs

20. Components of a balanced diet include:

(i) Carbohydrates

(ii) Proteins

(iii) Fats

(iv) Colour and Flavour

(a) i, ii, iii

(b) ii, iii, iv

(c) i, ii, iv

(d) All of the above

Answer a

21. Strategies for family planning include:

(i) Natural methods

(ii) Barrier methods

(iii) Hormonal methods

(iv) Surgical methods

(a) i, ii, iii

(b) ii, iii, iv

(c) i, ii, iv

(d) All of the above

Answer d

22. Examples of direct methods of demographic data collection include:

(i) Surveys

(ii) Census

(iii) Registration systems

(iv) School enrollment records

(a) i, iii, iv

(b) ii, iii, iv

(c) i, ii, iii

(d) All of the above

Answer c

23. Which factors contribute to food adulteration?

(i) Greed

(ii) Lack of awareness

(iii) Use of pesticides

(iv) Ignorance of food safety standards

(a) i, ii, iii

(b) ii, iii, iv

(c) i, ii, iv

(d) All of the above

Answer d

24. Methods of health education include:

(i) Mass communication

(ii) Group communication

(iii) Individual communication

(iv) Peer education

(a) i, ii, iii

(b) ii, iii, iv

(c) i, iii, iv

(d) All of the above

Answer d

VI) Assertion and Reason Type Questions

Assertion (A): Screening is an essential component of secondary prevention.

Reason (R): Screening aims to detect diseases early in asymptomatic individuals.

- (a) Both A and R are true, and R is the correct explanation of A.
- (b) Both A and R are true, but R is not the correct explanation of A.
- c) A is true, but R is false.
- d) A is false, but R is true.

Answer a

26. Assertion (A): Communication is key to effective health education.

Reason (R): Communication removes all barriers to learning.

- (a) Both A and R are true, and R is the correct explanation of A.
- (b) Both A and R are true, but R is not the correct explanation of A.
- c) A is true, but R is false.
- d) A is false, but R is true.

Answer c

27. Assertion (A): Essential medicines are included in the WHO list to ensure availability.

Reason (R): Essential medicines are often expensive and unaffordable.

- (a) Both A and R are true, and R is the correct explanation of A.
- (b) Both A and R are true, but R is not the correct explanation of A.
- (c) A is true, but R is false.
- (d) A is false, but R is true

Answer c

28. Assertion (A): Proper waste segregation is critical in hospital waste management.

Reason (R): Mixing of waste increases disposal efficiency.

- (a) Both A and R are true, and R is the correct explanation of A.
- (b) Both A and R are true, but R is not the correct explanation of A.
- (c) A is true, but R is false.
- (d) A is false, but R is true.

Answer c

29. Assertion (A): Malnutrition affects cognitive development in children.

Reason (R): Malnutrition reduces the availability of carbohydrates in the diet.

- (a) Both A and R are true, and R is the correct explanation of A.
- (b) Both A and R are true, but R is not the correct explanation of A.
- c) A is true, but R is false.
- d) A is false, but R is true.

Answer c

VII) Clinical case scenario based MCQs

A 29-year-old woman, mother of three children, visits a community health center seeking advice on family planning. She has irregular menstrual cycles and is concerned about the side effects of hormonal contraceptives. She lives in a rural area with limited access to healthcare services.

Questions:

30. Which of the following is the most suitable contraceptive method for this patient, considering her preferences and concerns?

- (a) Oral Contraceptive Pills
- (b) Copper-T Intrauterine Device (IUD)

(c) Barrier Methods (e.g., condoms)

(d) Sterilisation

Answer d

31. Which of the following is a permanent method of contraception that she can consider?

(a) Tubectomy

(b) Condoms

(c) Injectable Contraceptives

(d) Rhythm Method

Answer a

32. Which demographic indicator is most relevant to assessing the success of family planning programs in her community?

(a) Total Fertility Rate (TFR)

(b) Crude Birth Rate

(c) Infant Mortality Rate

(d) Contraceptive Prevalence Rate

Answer a

33. What is the primary focus of family planning programs

under the National Health Mission in India?

- (a) Reducing maternal mortality
- (b) Achieving population stabilization
- (c) Promoting child health services
- (d) Providing infertility treatment

Answer b

34. Which counseling technique is most effective for helping the patient make an informed decision about family planning?

- .(a) Group Counseling Sessions
- (b) One-on-One Interpersonal Counseling
- (c) Distribution of Educational Pamphlets
- (d) Social Media Campaigns

Answer b

Q- multiple answers

Multiple Options:

1. Schedule of Inactivated Polio Vaccine (IPV) followed in National Immunisation Schedule of

- i. 0.1ml on 6,10 weeks
- ii. 0.1ml on 10 weeks
- iii. 0.1ml on 6,14 weeks
- iv. 0.1 ml on 9 months

- a) i
- b) iii,iv
- c) i, iv
- d) ii,iii

(b)

2 END TB strategy indicators

- i. 90% reduction by 2035 in number of TB deaths compared with 2015
- ii. 95% reduction by 2035 in number of TB deaths compared with 2015
- iii. 90% reduction by 2035 in number in TB incidence rate compared with 2015
- iv. 95% reduction by 2035 in number in TB incidence rate compared with 2015
- v. Zero TB affected families facing catastrophic costs due to TB by 2035

- a) i,ii,v
- b) ii,iii,v
- c) i,iv,v
- d) ii,iv,v

(b)

3. Responsibilities of WHO includes

- i. Health Statistics
- ii. Provision of essential drugs to the countries
- iii. Prevention and control of specific disease

iv. Biomedical research

a) i, ii, iii

b) ii, iii, iv

c) i, iii, iv

d) All the above

(c)

4 Symptoms of drug addiction

i. Loss of interest in sports and daily routine

ii. Loss of appetite and body weight

iii. Impaired memory and concentration

iv. Nausea and vomiting

a) i, ii, iii

b) ii, iii, iv

c) i, iii, iv

d) All the above

(d)

5 . Disability adjusted life years (DALY)

i is a measure of overall disease burden, expressed as a number of years lost due to ill health

ii. $DALY = \text{years of lost life [YLL + years lost to disability (YLD)]}$

iii. Leading causes of disability is road traffic accidents

iv. Most appropriate measure of chronic illness is time

a) i, ii, iii

b) i, ii, iv

c) ii, iii, iv

d) All the above

(d)

6 Which of the following are components of GOBI-FFF in UNICEF

a) Growth monitoring

b) Oral and Hand hygiene.

c) Breastfeeding.

d) Immunisation

e) Food Fortification

(a, b, c, d, e)

7 Which of the following are not quantitative methods of management?

- a) Cost benefit analysis
- b) Organisational design
- c) Human resource management
- d) Management by objective

(b,c)

8 Which of the following present with fever with rash

- a) Measles
- b) Mumps
- c) TB
- d) Chicken pox

(a,b,d)

9 Which of the following statements are true about chickenpox?

- a) It is caused by HHV 3
- b) The secondary attack rate is 85%
- c) A killed vaccine is used for prophylaxis
- d) The virus stays latent in the sensory ganglion

(a,b,d)

10 Rashtriya Bal Swasthya karyakram (RBSK) involves screening of

- a) Defects at birth
- b) Disease in children
- c) Deficiency conditions
- d) Developmental delays

(a,b,c,d)

12 Obesity indices are all

- 1) Broca's index
- 2) Quetelet's index
- 3) Corpulence index
- 4) Sullivan's index

A) 1,2,3

B) 1,2,4

C) 2,3,4

D) 1,3,4

(A)

13 Benefits of Kangaroo mother care

- 1) skin to skin contact
- 2) infection prevention
- 3) exclusive breast feeding
- 4) early discharge

- A) 1,2,3
B) 1,2,4
C) 2,3,4
D) 1,3,4

(D)

14 . To calculate Global Hunger Index all are used

- 1) child underweight
- 2) child undernourishment
- 3) Child mortality
- 4) infant mortality

- A) 1.2.3
B) 1.2.4
C) 2.3,4
D) 1.3.4

(A)

15 Quantitative methods of Management include

- 1) Cost Accounting
- 2) Cost- Effective Analysis
- 3) Programme Evaluation and review technique
- 4) Management by objectives

- A) 1,2,3
B) 1,2,4
C) 2,3,4
D) 1,3,4

(A)

16 All are true about human milk

- 1) low Lactose
- 2) contain more Vitamin
- 3) better iron availability
- 4) higher percentage of linoleic acid and oleic acid

- A) 1,2,3

- B) 1,2,4
- C) 2,3,4
- D) 1,3,4

(c)

14 What are the key considerations of Copper-T insertion?

- 1) Uterine size and shape
- 2) Cervical stenosis
- 3) History of PID
- 4) Breastfeeding

- a) 2,3,4
- b) 3,4,1
- c) 4,1,2
- d) 1,2,3

(d)

15 Which of the following vaccines are given under UIP scheme?

- 1) TT injection
- 2) Influenza vaccine
- 3) hepatitis B vaccine
- 4) BCG

- a) 3,4,1
- b) 4,1,2
- c) 1,2,3
- d) 2,3,4

(a)

16 Which of the following healthcare workers typically employed in PHC

- 1) Medical Officer
- 2) JPHN
- 3) refractionist
- 4) Anganwaadi worker

- a) 1,2,3
- b) 2,3,4
- c) 3,4,1
- d) 4,1,2.

(a)

17 Which are the components of adolescent reproductive health care

- 1) Contraceptive counselling
- 2) STI prevention and treatment

3) Basic life support

4) Pregnancy testing and counselling

a) 3,4,1

b)4,1,2

c)2,3,4

d)1,2,3

(b)

18 Preventive strategy for COVID

include:

1) Antibiotic prophylaxis

2) Hand hygiene

3) Avoiding close contact

4) Vaccination

a)1,2,3

b)2,3,4

c)3,4,1

d)4,1,2

(b)

19 Which of the following statement

options about aim of National Rural

Health Mission are

true:

A. Provide accessible and affordable
Primary health care

B. Provide accountable, effective and
reliable Primary health care

C. Provide equal service in both
Urban & Rural area

D. Bridging the gap in rural health
care through ASHA

Options:

1) A,B and D

2) C, A and D

3) C, B and D

4)C, D and A

(2)

20 Which of the following statement

options about DASH diet for

Hypertension control are true:

A. Reducing Sodium Intake in diet

B. Consuming more fruits &

- vegetables rich in K, Ca & Magnesium
- C. Consuming more Protein rich foods
- D. Reducing Saturated Fat and total Fat in diet

Options: 1) A, B and D

2) C, A and D

3) C, B and D

4) C, D and A

(1)

21 Which of the following statements about National Strategic Plan (2017-24) for

HIV/AIDS & STI for an AIDS free India are true:

A. Universal coverage of HIV prevention and testing

B. Universal coverage of HIV treatment to care continuum

C. Universal coverage of STD prevention and testing

D. Universal intervention that is equitable, effective and adapted to local needs

Options:

1) A, B and D

2) C, A and D

3) C, B and D

4) C, D and A

(1)

22 Which of the following statements about Indian Public Health Standards for PHC are true:

A. Provide comprehensive Primary Health care to community through PHCS

B. Achieve and maintain an acceptable standard of Quality of Care

C. Make the services more

responsive and sensitive to the needs of the community

D. Make services that are based on intersectoral collaboration

Options:

1) A, B and D

2) C, A and D

3) C, B and A

4) C, D and A

(3)

23 Which of the following statement options about Ford Foundation helping India are true:

A. Assistance to Universities

B. Establishing Orientation & Training Centers

C. Supporting Research cum Action Projects

D. Establishing National Institute of Health & Administration

Options:

1) A, B and D

2) B, C and D

3) D, C, B and A

4) C, D and A

(3)

24 Which of the following/s is/are emerging diseases

i. Ebola virus disease

ii. Hantavirus Disease

iii. Human Monkey Pox

iv. Leprosy

(i, ii, iii)

25 Which of the following/s statement/s is/ are true about TB

i. NTEP uses daily regimen currently

ii. CBNAAT can not detect Rifampicin sensitivity

iii. Bedaquiline is used for drug resistant TB

iv. Capreomycin is a first line Antitubercular

tubercular drug

(i, iii)

26 Which of the following/s statement/s is/are true about Plague
i. Man is the only reservoir of Plague bacilli

ii. Blocked fleas are less dangerous than partially blocked fleas in transmission

iii. Streptomycin is the drug of choice for plague treatment

iv. Pneumonic plague is the most common type of infection

(ii, iii)

27 Which of the following/s statement/s is/ are true about Measles

i. Transmitted by droplet infection

ii. Measles vaccine is administered at 9 months of age.

iii. Toxic shock syndrome is an adverse effect following measles vaccination

iv. Measles vaccine is only available in monovalent form

(i, ii, iii, iv)

28 Which of the following/s statement/s is/ are true about malaria

i. API is a measure of operational efficiency of malaria control

ii. 50% of tribal malaria is caused by P. Falciparum.

iii. P. Ovale malaria is highly prevalent in India.

iv. Falciparum malaria is treated by Artemisinin combination therapy.

(ii, iv)

29 Agents causing food poisoning by preformed toxins is/are:

i. S. aureus

ii. Klebsiella

iii E.coli

iv. B cereus

(i, iv)

30 All are principles of primary health care except:

i. Family planning

ii. Immunization

iii. Appropriate technology

iv. Equitable distribution

(i, ii)

31. True regarding School Health Services (SHS) is/are:

i. Less than 40 students in a class

ii. Medical Officer of PHC is in charge of the SHS

iii. Number of latrines, 1 per 1000 student.

iv. Number of urinals 1 per 60 students

(i, ii, iv)

32 .Following government schemes target maternal and child health in tribal areas:

i.Pradhan Mantri Mathritwa Vandana Yojana

ii. Ayushman Bharat

iii.Van Bandhu Kalyan Yojana

iv. Janani Suraksha Yojana

(i, iii, iv)

33. Diseases under International Health Regulations is/are:

i. Cholera

ii. Ebola

ii. Plague

iv. Wild Poliomyelitis

(i, ii, iii, iv)

34. All are principles of Primary Health care except

a. Family Planning

b.Community participation

c.Appropriate technology

d. Immunisation

a. a,b,c,

b. a,d

c. c,d

d. b,c,d

(d)

35. All are first line drugs for treatment of TB

a. Rifampicin

b. Ethionamide

c. Levofloxacin

d. Pyrazinamide

(a,b)

36. Cardinal features of leprosy is/ are

a. Hyperpigmented patches

b. hypoanaesthesia

c. thickened nerves

d. presence of AFB

(a,b,c)

37. Criteria for an ideal IUD candidate is/ are

a. Who has borne at least two children

b. No history of pelvic diseases

c. Normal menstrual periods

d. In a polygamous relationship

(a,b,c)

38 Syndrome X is characterized by

a. Hyperglycemia

b. Hyperinsulinemia

c. Dyslipidemia

d. Hypertension

(a,b,c,d)

39. Which are the principles of primary health care?

a) community participation

b) reproductive health

c) intersectoral coordination

d) appropriate technology

(a,c,d)

40. Which of the following are pre-eradication era malaria indicators?

- a) infant parasite rate
- b) slide positivity rate
- c) slide falciparum rate
- d) average spleen rate

(a,d)

41. IMNCI focuses on common childhood illness like:

- a) malnutrition
- b) mumps
- c) measles
- d) rubella

(a,c)

42. Which of the following is important in calculating pearl index?

- a) no. of abortions
- b) total accidental pregnancies
- c) total gestational period
- d) total months of Exposures

(b,d)

43. Which of the following diseases are caused by mite?

- a) scrub typhus
- b) trench fever
- c) rickettsial pox
- d) epidemic typhus

(a,c)

44. Which of the following are considered essential components of first-line ART regimens for PLHIV as per the NACO guidelines?

- a) Tenofovir disoproxil fumarate (TDF)
- b) Efavirenz (EFV)
- c) Zidovudine (AZT)
- d) Ritonavir-boosted Lopinavir (LPV/t)

(a,b)

45. Based on the Modified Jones Criteria, which of the following are

classified as major diagnostic criteria for rheumatic fever?

- a) Carditis
- b) Subcutaneous nodules
- c) Polyarthritits
- d) Erythema marginatum

(a,b,c,d)

46. Rubella vaccination for adolescent

girls is prioritized to achieve which of the following public health goals?

- a) Prevention of congenital rubella syndrome (CRS)
- b) Herd immunity to eliminate rubella transmission
- c) Improved immunity against rubella variants
- d) Decreased adolescent morbidity from rubella

(a,b)

47. In disaster management during floods, which interventions are classified under immediate response?

- a) Establishing sanitation facilities in relief camps
- b) Conducting flood risk assessments
- c) Immunization against cholera and typhoid
- d) Providing vector control measures

(a,d)

48. Which of the following align with the principles of primary health care as highlighted in the Alma-Ata Declaration?

- a) Equity in access to health care
- b) Intersectoral coordination
- c) Centralized planning of health services
- d) Appropriate technology for health care delivery

(b,d)

49. Under NVBDCP, the strategies for prevention and control of vector borne diseases are

- I. Disease management
- II. Behavioral change communication
- III. Disease specific control strategies
- IV. Integrated vector management

- a) I alone is correct
- b) I & II are correct
- c) I, II & IV are correct
- d) I & IV are correct

(C)

50. Biological factors contributing to cardiovascular mortality are

- I. Central obesity
- II. Overweight
- III. Insufficient physical activity
- IV. High blood pressure

- a) I alone is correct
- b) I & II are correct
- c) I, II & IV are correct
- d) I & IV are correct

(C)

51. Currently, the health planning in India is/are done by

- I. National Institution for Transforming India
- II. Indian Parliament
- III. Five year plans
- IV. Planning Commission

- a) I alone is correct
- b) I & II are correct
- c) I, II & IV are correct
- d) I & IV are correct

(C)

52. Three-tier system present in

- I. Panchayat Raj System
- II. Organisational structure in CHC
- III. Organisational structure in PHC
- IV. Health care delivery system in India

- a) I alone is correct
- b) I & II are correct
- c) III & IV are correct
- d) I & IV are correct

(d)

53. South East Asia Region of WHO include

- a) India
- b) Sri Lanka
- c) Pakistan
- d) Thailand

- a) I alone is correct
- b) I & II are correct
- c) I, ii and iv correct
- d) II & IV are correc

(c)

Q- clinical scenarios

CLINICAL SCENARIOS

1. Mrs. Sharma, a 24year old primigravida from a rural village, presents to the antenatal clinical at 28, weeks of gestation. This is her first visit to any health care facility during this pregnancy. She plans to deliver at home with the help of local birth attendant, as is common in her village. She has no documentation of previous tetanus immunisation.

1) What is the most appropriate tetanus toxoid (TT) vaccination schedule for Mrs. Sharma at this point?

- a) Single dose of TT is sufficient
- b) Two doses of TT, 4 weeks apart /
- c) Two doses of TT, 2 weeks apart
- d) Three doses of TT, 2 weeks apart
- e) No vaccination is needed as its too late in pregnancy

(b)

2) Which of the following is NOT a risk factor for neonatal tetanus in this scenario?

- a) Lack of antenatal care
- b) Planned home delivery
- c) Mothers age being 24 years
- d) Traditional birth attendant involvement
- e) Unknown immunisation status

(c)

3) What is the minimum interval required between the two doses of TT vaccine to ensure adequate protection for newborn

- a) 1 week

- b) 2 weeks
- c) 3 weeks
- d) 4 weeks
- e) 6 weeks

(d)

4) Which of the following would be the most effective long-term strategy to prevent neonatal tetanus in Mrs. Sharma's village?

- a) Providing tetanus an toxin to all newborns
- b) Training traditional birth attendants in clean delivery practices only
- c). Comprehensive approach including maternal immunization, clean delivery practices and health education
- d) Banning home deliveries
- e) Providing antibiotics to all newborns

(c)

5) Regarding cord care to prevent neonatal tetanus, which of the following practices should be recommended to the traditional birth attendant?

- a) Apply cow dung to the umbilical stump
- b) Using sterile scissors/ blade to cut the cord and keeping the stump clean and dry
- c) Applying ghee to the umbilical stump
- d) Tightly bandaging the umbilical stump
- e) Apply turmeric powder to the umbilical stump

(b)

2. A 14-year-old boy presents to the dermatology outpatient department

with complaints of skin patches that have been present for 6 months. He reports a loss of sensation over the affected areas, particularly on his left forearm and upper back. On examination, there are 4 hypopigmented, hypoesthetic patches with raised borders. A thickened ulnar nerve is palpable on the left side.

1. Which is the major port of exit for the *Mycobacterium leprae*?

- a) Skin lesion
- b) Urine
- c) Blood
- d) Nose

(d)

2 Leprosy is a disease with

- a) Low infectiousness, high pathogenicity
- b) High infectiousness, high pathogenicity
- c) High infectiousness, low pathogenicity.
- d) Low infectiousness, low pathogenicity

(d)

3 WHO clinical classification of Leprosy include

- a) Tuberculoid; Borderline, Lepromatous
- b) Pauci Bacillary & Multi Bacillary
- c) Tuberculoid (TT), Borderline Tuberculoid (BL), Borderline Lepromatous (BL)
- d) Indeterminate tuberculoid; Flat; raised, borderline, lepromatous

(b)

4. The above mentioned scenario is a case of ----

- a) Tuberculoid leprosy
- b) Multi Bacillary

- c) Pauci Bacillary
- d) Borderline tuberculoid

(c)

5. Treatment of the case include

- a) Rifampicin and dapsone only
- b) Rifampicin, dapsone, and clofazimine
- c) Rifampicin, dapsone, and isoniazid
- d) Dapsone and clofazimine only

(b)

3 Mr. Alexander, 60 yr/male presented to your OPD with complaints of headache since morning. Headache was sudden in onset, Intermittent in nature, dull aching in character. No history of trauma, vomiting, fever, neck stiffness. On examination BP was found to be 160/110 mm Hg. Repeat BP after 15 minutes was also found to be the same. A diagnosis of hypertension was made.

1. Tracking of blood pressure is

- a) Primary prevention
- b) Secondary prevention
- c) Tertiary prevention
- d) Primordial prevention

(b)

2. Expand DASH

- a) Dietary Approach to Stop Haemolysis
- b) Diseases Associated with Systemic HTN
- c) Dietary Approach to Stop Hypertension
- d) Dietary Approach to Slow Hypertension

(d)

3. All of the following are modifiable risk factors for hypertension except

- a) Alcohol
- b) Salt intake
- c) Obesity
- d) Age

(cd)

4. Recommended salt intake per day

- a) Less than 2 grams of Na
- b) less than 2.4 grams of Na
- c) Less than 5 grams of NaCl
- d) less than 6 grams of NaCl

(c)

5. All of the following are components of NPCDCS programme except

- a) Cardiovascular diseases
- b) Stroke
- c) Diabetes
- d) Depression

(cd)

4 A 27-year-old woman, Ms. Anjali, presents to the emergency department with a sudden onset of fever, chills, and swollen lymph node in her groin area. She reports that she recently returned from a hiking trip in a rural area known for rodent populations. During her trip, she noticed numerous dead rodents and was bitten by fleas while camping. On examination, her temperature is 39.5°C (103°F), and she has an enlarged, painful lymph node (bubo) on the right side.

1. What could be the causative organism?

- A. *Corynebacterium diphtheriae*
- B. *Wuchereria Bancrofti*
- C. *Yersinia pestis*
- D. *L. interrogans*

(c)

2. Which type of plague is most likely indicated in Ms. Anjali?

- A) Septicemic plague
- B) Pneumonic plague
- C) Bubonic plague
- D) Primary plague

(C)

3. What is the primary mode of transmission to humans?

- A) Airborne transmission
- B) Direct contact with infected rats/urine of infected rats
- C) Bite from infected fleas
- D) Contaminated water

(C)

4. Which of the following is the first-line treatment for plague? (1

- A) Doxycycline
- B) Ciprofloxacin
- C) Gentamicin
- D) Streptomycin

(d)

5. What preventive measures should be emphasized to individuals traveling to areas where plague is endemic?

- A) Avoidance of all animal contact
- B) Use of insect repellent and proper camping hygiene
- C) Ensuring vaccination against all zoonotic diseases-
- D) Frequent washing of hands with soap

(B)

5 35-year-old man comes to OP with H/o fever, weight loss and diarrhoea for past 3 months.

He is a truck driver. He is married and has 2 children. And his wife is currently 20 weeks pregnant. He belongs to low-income family. On

examina on there is generalized Lymphadenopathy. And investigation he is found to be HIV positive?

1) As a medical officer of PHC where will you refer the patient for treatment?

- A) Ushus clinic
- B) Jyothis clinic
- C) Pulari Clinic
- D) Suraksha clinic

(A)

2) What test can be offered to his wife to rule out HIV if she is in window period?

- A) Western blot
- B) ELISA
- C) Rapid test
- D) DNA RT-PCR

(C)

3) What is the cut off range of CD 4 Count for starting treatment?

- A) $CD\ 4 < 500$
- B) $CD\ 4 < 200$
- C) $CD\ 4 < 300$
- D) irrespective of CD 4 Count

(D)

4) What is current first line ART treatment regimen?

- A) TDF 300mg+ 3TC 300mg + DTG 50 mg
- B) TDF 300mg + 3TC 300mg + EFV 600mg
- C) TDF 300mg+3TC 300mg + Lopinavir 200mg
- D) TDF 300mg + 3TC 300mg + Ritonavir 50 mg

(A)

5) Major signs of AIDS include all except

- A) Weight loss > 10% of body weight
- B) Chronic Diarrhoea for >1 month
- C) Prolonged fever > 1 month
- D) Generalized lymphadenopathy

(D)

6 A 25 year old Primi, 5 months pregnant, came to antenatal OP of a PHC, for the first time. complaining of redness and palpitation. She is not registered in PHC or sub centre. She is

1) Early registration of pregnancy refers to registering the antenatal women within:

- a) 8 to 12 weeks
- b) 12 to 16 weeks
- c) 6 to 24 weeks
- d) Any time before 3rd trimester

(a)

2) IFA tablet contains:

- a) 300mg of elemental iron & 500µg of Folic acid.
- b) 100mg of elemental iron & 500µg of Folic acid.
- c) 60mg of elemental iron & 100µg of Folic acid.
- d) 100mg of elemental iron & 1000µg of Folic acid.

(b)

3) RCH programme is integrated with

- a) Essential obstetric care
- b) MTP
- c) Prevention of Reproductive Tract Infection.
- d) All of the above

(d)

4) Reference range of Hemoglobin value in pregnancy

- a) <9gm
- b) <10gm

- c) <11gm
- d) <12gm

(c)

5) Best approach regarding Tetanus Toxoid Vaccination is:

- a) Give one dose Injection TT
- b) one dose of Injection TT & 2nd dose one month later
- c) injection Tetanus Immunoglobulin & Injection TT
- d) No vaccination needed

(b)

7 Since the 2018 Nipah Virus outbreak in Kerala, every year suspected cases can come to the attention of you as a Medical Officer in the area. You need to know the following for appropriate action:

1. Mode of transmission (EXCEPT) contact with infected:

- a) bats
- b) pigs
- c) monkeys
- d) person

(c)

2. Incubation period is:

- a) 1-3 days,
- b) 4-14 days,
- c) 15-21 days,
- d) 22-30 days

(b)

3. Clinical features include following EXCEPT:

- a) Diarrhoea
- b) encephalitis
- c) fever, headache, myalgia, sore throat
- d) respiratory problems & respiratory distress

(a)

3. Treatment

- a) immunoglobulin
- b) antivirals
- c) supportive treatment for complications
- d) vaccine

CC)

4. Prevention

- a) good Nutrition
- b) vaccination
- c) awareness to prevent exposure
- d) RT. PCR

CC)

8) A 28 year old female complains of shortness of breath and sleep apnoea. She is a software engineer by profession and is physically inactive. Her Height is 160 cm and weight is 95 kg.

a. Define the clinical condition being discussed?

- Obesity

b. Calculate BMI

- $\text{Weight (kg)} / \text{Height (m)}^2 = 95 / 1.6 * 1.6 \approx 37.1 \text{ Kg/m}^2$

c. Formulae for Quetelets index

- same as BMI

d. Two methods to estimate body fat

- Skinfold thickness measurement, Bioelectrical impedance analysis, estimation of total body water, Total body potassium, Waist circumference, Waist Hip circumference

e. Define Syndrome X?

- Metabolic Syndrome, characterized

by a cluster of conditions like obesity, hypertension, high blood sugar, high triglyceride, low HDL.

9) A patient is brought to casualty with nose and gum bleeding.

On examination the BP is undetectable, The patient was admitted in a local clinic for 2 days and diagnosed to be test positive for dengue. Answer the next five questions in this Context:

1) The patient is in

- a. Compensated shock
- b. Profound shock
- c. Hemorrhagic tendencies
- d. None of the above

(b)

2) Most important parameter to be monitored in such patients is

- a. Hb%
- b. Differential Count
- c. Hct
- d. Serum Sodium

(c)

3) One of the following is not an immunological test for dengue

- a. IgM ELISA
- b. IgG ELISA
- c. Complement Fixation
- d. Virus isolation

(b)

4) Which of the following is not a criteria for discharge of such patients

- a. Return of appetite
- b. Minimum 1 day recovery from shock
- c. Platelet count more than 50000
- d. Afebrile for 1 day

(b)

5) Which one of the following is false about CYD-TDV vaccine for dengue

- a. Tetravalent
- b. Live attenuated
- c. Contraindicated in pregnancy
- d. Administered Intramuscularly

(d)

10. A malnourished child was brought to PHC with frequent episodes of diarrhoea. Mother complains of rice watery stools

A) What is the probable diagnosis?

(1)

● Cholera

b) Name the different carriers in the disease. (1)

● Healthy

Convalescent

Incubatory

Chronic

c) Write the management for the disease.

● Plan A,B,C

11 Mrs. Jothi is a 26-year-old pregnant woman attending her first antenatal visit at 12 weeks of gestation in a rural primary health centre. She is a gravida 2, para 1, with one living child born at home three years ago. Her first pregnancy was complicated by anaemia and a low-birth-weight baby. The health worker notices that Jothi has not received any antenatal care in her previous pregnancy.

On examination, her haemoglobin is 9 g/dL, and she is underweight. She reports consuming a predominantly cereal-based diet and

her family depend on the local government schemes for healthcare support.

1. What is the primary objective of the Maternal and Child Health (MCH) program for women like Jothi?

- A. To reduce maternal and infant mortality
- B. To ensure institutional deliveries only
- C. To provide anaemia screening for all pregnant women
- D. To promote exclusive breastfeeding

(A)

2. Considering Jothi's history and examination, which classification does her anaemia fall under, based on WHO guidelines?

- A. Normal
- B. Mild anaemia
- C. Moderate anaemia
- D. Severe anaemia

(B)

3. Which of the following is a key component of antenatal care under the Reproductive and Child Health (RCH) program?

- A. Administering Vitamin A supplementation
- B. Conducting at least four antenatal visits
- C. Mandatory hospitalization at 36 weeks
- D. Ultrasound examination in every trimester

(B)

4. Under the National Nutritional Anaemia Control Program, which intervention is recommended for Jothi?

- A. Oral iron and folic acid tablets (100 mg iron + 0.5 mg folic acid) daily for 100 days
- B. Parenteral iron injections once a week for three months
- C. Iron supplementation starting after delivery
- D. Double-dose oral iron for all pregnant women

(A)

5. If Jothi is enrolled in the Janani Suraksha Yojana (JSY) scheme, what benefit will she receive upon delivering in a government healthcare facility?

- A. Free caesarean section services
- B. Financial assistance for institutional delivery
- C. Life insurance for the mother
- D. Nutrition kit for the newborn

(B)

Q- assertion reasoning

ASSERTION AND REASON

1. Assertion (A): Under the Medical Termination of Pregnancy Act (as amended in 2021), pregnancy can be terminated upto 24 weeks of gestation period for specific categories of women

Reason (R): The extension of gestation period from 20 to 24 weeks was made to provide safe and legal abortion services on therapeutic, eugenic, humanitarian and social grounds

- a) Both A and R are true, but R is not the correct explanation of A
- b) Both A and R are true, and R is the correct explanation of A
- c) A is true but R is false
- d) A is false but R is true

(b)

2. Assertion (A): The postpartum period is considered an ideal time for initiating family planning counselling and services

Reason (R): During this period, women have frequent contact with health care providers and are more motivated to accept family planning methods to prevent closely spaced pregnancies

- a) Both A and R are true, and R is the correct explanation of A
- b) Both A and R are true, but R is not the correct explanation of A
- c) A is true but R is false
- d) A is false but R is true

(a)

3. Assertion (A): The secondary attack rate is typically higher in measles

than in tuberculosis within household setting

Reason (R): Measles has a shorter incubation period and is transmitted through respiratory droplets, leading to rapid spread among susceptible household contacts.

Options:

- a) A is true but R is false
- b) Both A and R is true, but R is not the correct explanation of A (measles stays on fomites for much longer, in tb close contact is required for transmission)
- c) A is false but R is true
- d) Both A and R is true, and R is the correct explanation for A.

(b)

4. Assertion (A) All suspected rabies dog bite patients must receive local wound treatment, even if they have received pre-exposure prophylaxis

Reason (R): Local wound treatment with antiseptic reduces viral load because rabies virus multiplies rapidly at the bite site before entering nerve endings

Options:

- a) Both A and R are true and R is the correct explanation of A
- b) Both A and R are true but R is not the correct explanation of A
- c) A is true but R is false
- d) A is false but R is true

(a)

5. Assertion (A): Climate change has been identified as a significant factor in the emergence and re-emergence of vector-borne diseases in previously non-endemic regions

Reasons (R): Rising global

temperatures and changing precipitation patterns alter vector ecology by expanding their geographical range and promoting their breeding seasons

Options:

- a) A is false but R is true
- b) Both A and R are false
- c) Both A and R are true and R is the correct explanation of A
- d) Both A and R are true but R is not the correct explanation of A

(c)

6. Assertion (A) - India requires yellow fever vaccination of all travellers from some countries

Reason (R) - Yellow fever is not present in India

- a) Both A and R are true and R is the reason for A
- b) Both A & R are true and R is not the reason for A
- c) A is correct but R is incorrect
- d) A is incorrect but R is correct

(a)

7. Assertion (A) - Tobacco sale is banned in and around-school campus

Reason (R) - The Cigarettes and Other Tobacco Products (COTPA) Act of 2003 prohibits the sale of tobacco products within 500 yards of educational institutions.

- a) Both A and R are true and R is the reason for A
- b) Both A & R are true and R is not the reason for A
- c) A is correct but R is incorrect (100 yards)
- d) A is incorrect but R is correct

(c)

8. Assertion (A) - Children born to HIV-infected mothers will test positive for HIV antibodies during infancy regardless of their own infection status

Reason(R) - Maternal HIV antibodies transferred passively to the infant during pregnancy usually persist for nearly 9-12 months in the infant

- a) Both A and R are true and R is the reason for A
- b) Both A & R are true and R is not the reason for A
- c) A is correct but R is incorrect
- d) A is incorrect but R is correct

(a)

9. Assertion (A) - Body Mass Index (BMI) reflects overall body weight, which is more strongly associated with metabolic and cardiovascular risks than Waist-hip ratio

Reason (R) - Body Mass Index (BMI) is $\text{Weight (Kg)} / \text{Height (m)}^2$

- a) Both A and R are true and R is the reason for A
 - b) Both A & R are true and R is not the reason for A
 - c) A is correct but R is incorrect
 - d) A is incorrect but R is correct
- (WHR IS BETTER for CVD risk)

(d)

10. Assertion (A): The first five years of life are critical for the development of mental health. (Yes, due to brain development)

Reason (R): During adolescence, rapid brain development and early experiences shape the foundation for cognitive, emotional, and social well-being.

- a) Both A and R are true and R is the

reason for A

b) Both A & R are true and R is not the reason for A

c) A is correct but R is incorrect

d) A is incorrect but R is correct

(b)

11 Assertion (A): Disaster mitigation prevent hazards from causing emergencies or decrease the of effect emergencies

Reason (R): Mitigation complements disaster preparedness and response activities

a) (A) is not correct but (R) is correct

b) Both (A) and (R) are correct and (R) is the correct explanation of (A).

c) Both (A) and (R) are correct and (R) is not the correct explanation of (A).

d) (A) is correct but (R) is not correct.

(c)

12 Assertion (A): Maternal Mortality is high among tribal population

Reason (R): Anaemia, early marriage, early child birth, low BMI are common among tribes

a) (A) is not correct but (R) is correct

b) Both (A) and (R) are correct and (R) is the correct explanation of (A).

c) Both (A) and (R) are correct and (R) is not the correct explanation of (A).

d) (A) is correct but (R) is not correct

(b)

13 Assertion (A): Smoking and drug habits are more likely to be taken up during adolescence.

Reason (R): It is best to identify the situations that push the adolescent to such habits before sending

him to a rehabilitation centre.

- a) (A) is not correct but (R) is correct
- b) Both (A) and (R) are correct and (R) is the correct explanation of (A).
- c) Both (A) and (R) are correct and (R) is not the correct explanation of (A).
- d) (A) is correct but (R) is not correct

(C)

14 Assertion (A): Indian Red-cross was established with 3 objectives: improvement of health, prevention of disease and mitigation of suffering.

Reason(R): It is presided by the president of India and the chairman is the health minister.

- a) (A) is not correct but (R) is correct.
- b) Both (A) and (R) are correct and (R) is the correct explanation of (A)
- c) Both (A) and (R) are correct and (R) is not the correct explanation of (A)
- d) (A) is correct but (R) is not correct.

(C)

15 Assertion (A): Access to Primary health centres helps identification, care and prevention of Communicable diseases in rural communities.

Reason(R): More optimum utilisation of rural health infrastructure is expected to yield the expected results.

- a) Both A and R are true and R is the correct explanation of A
- b) Both A and R are true and R is not correct explanation of A
- c) A is true but R is false
- d) A is false but R is true

(A)

16 Assertion (A): Air pollution is a major risk factor for chronic respiratory diseases.

Reason (R):

Long-term exposure to pollutants can lead to inflammation and damage to lung tissue, increasing susceptibility to conditions like asthma and COPD.

A) Both A and R are true, and R is the correct explanation of A.

B) Both A and R are true, but R is not the correct explanation of A.

C) A is true, but R is false.

D) A is false, but R is true.

(A)

17 Assertion (A): Emergency response plans are only necessary for large-scale natural disasters, such as earthquakes or floods.

Reason (R): All health emergencies, regardless of their scale, can lead to significant health impacts and require some level of coordinated response.

A) Both A and R are true, and R is the correct explanation of A.

B) Both A and R are true, but R is not the correct explanation of A.

C) A is true, but R is false.

D) A is false, but R is true.

(D)

18 Assertion (A): Family planning initiatives typically focus only on women's health and reproductive rights.

Reason (R): Engaging men in family planning discussions can improve contraceptive use and reduce unintended pregnancies.

- A) Both A and R are true, and R is the correct explanation of A
- B) Both A and R are true, but R is not the correct explanation of A.
- C) A is true, but R is false.
- D) A is false, but R is true.

(D)

19 Assertion (A): Secondary hypertension accounts for the majority of hypertension cases in the population.

Reason (R): Secondary hypertension is caused by identifiable medical conditions, whereas primary hypertension has no known cause and is more common.

- A) Both A and R are true, and R is the correct explanation of A.
- B) Both A and R are true, but R is not the correct explanation of A
- C) A is true, but R is false.
- D) A is false, but R is true.

(D)

20 Assertion (A): Emerging diseases are often associated with zoonotic transmission, where pathogens jump from animals to humans.

Reason (R): Changes in environmental conditions, such as climate change and urbanization, create new habitats for vectors and reservoirs of diseases.

- A) Both A and R are true, and R is the correct explanation of A.
- B) Both A and R are true, but R is not the correct explanation of A.
- C) A is true, but R is false.
- D) A is false, but R is true.

(A)

21-25 Answer these questions by selecting the appropriate options given below.21-25

A. Both A and R are true, and R is the correct explanation of A

B. Both A and R are true, and R is not the correct explanation of A

C. A is true but R is false

D. A is false but R is true

(E) Both are false

21 Assertion-A Medical Practitioner has the legal and ethical obligation to act in their patients

'best interests and prioritise their wellbeing above their own interests or the interests of others'

Reason: As the basic Principle of Medical Ethics - Autonomy gives patients the right to make decisions about their own health care

B

22 Assertion: - Diphtheria nasal carriers are dangerous as source of infection

Reason: They can do frequent shedding of the organism into the environment

A

23 Assertion: Intra uterine device are better advised to women with pelvic inflammatory disease

Reason: IUD will protect against pelvic inflammatory diseases

E

24 Assertion- World health day is celebrated every year on 7th April.

Reason: world health organization constitution came into force on 7th

April, 1948

A

25 Assertion: Good planning will have a built-in evaluation

Reason: As it measures the degree to which objectives and targets are fulfilled.

A

26- 30 Answer the questions on the basis of the following options: 26-30

a) Both assertion and reason are true and the reason is the correct explanation of assertion.

b) Both assertion and reason are true, but reason is not the correct explanation of the assertion

c) Assertion is true and reason is false

d) Assertion is false and reason is true.

26 Assertion: INH is the first line treatment for latent TB

Reason: It prevents active TB

C

27 Assertion: Ebola virus can be transmitted through airborne route.

Reason: Primarily transmitted through body fluids.

D

28 Assertion: Birth weight should be taken within 24 hours of birth.

Reason: Birth weight will double by 5 months

B

29 Assertion: Janani Suraksha Yojana

(JSY) is a motherhood program under NRHM

Reason: Cash incentives given to females of higher and lower income strata

B

30 Assertion: PHC provide outreach services.

Reason: PHC conduct health camp and village level meetings.

A

31-36 Options: 31-36

1. Both Assertion & Reason are true and Reason is the correct explanation of assertion

2. Both Assertion & Reason are true and Reason is not the correct explanation of assertion

3. Assertion is true, but Reason is false

4. Assertion is false, but Reason is true

5. Both Assertion & Reason are false

31 Assertion: NITI Ayog replaced Planning Commission in 2015

Reason: NITI Ayog was established following the Alma Ata Declaration (Alma ata- health for all)

C

32 Assertion: Intra-Uterine devices are recommended for "Target Couple" for family Planning (sterilization is)

Reason: Intra-Uterine devices are not useful as a spacing method (used)

E

33 Assertion: Disaster Mitigation

involves measures to prevent emergency & lessen their effects
Reason: Includes flood mitigation works, land use planning, improved building codes etc

A

34 Assertion: Syndromic Approach to STD is a useful strategy for early diagnosis & treatment

Reason: Syndromic Approach treats all possible organisms for the syndrome(most common)

C

35 Assertion: Re-emerging diseases are diseases that were earlier easily treatable

Reason: Increasing use of antimicrobials even in sub-therapeutic doses causes resistance

B

Assertion Reason type questions: (5 x 1=5 marks) (Write the correct answer number)

1. Assertion True, Reason - True, Reason is correct explanation for assertion.

2. Assertion True, Reason - True, Reason is incorrect explanation for assertion.

3. Assertion - False, Reason - True

4. Assertion True, Reason False

5. Assertion & Reason are false

36. Assertion: Despite increasing vulnerability to natural disasters, many communities resist adopting mitigation programmes and

measures.

Reason: Mitigation is often perceived by communities as being incompatible with their cultural practices

1

37 Assertion: Amoebiasis is caused by *Entamoeba histolytica*

Reason: Man is the only reservoir of infection in amoebiasis

2

38 Assertion: The Pradhan Mantri Jan Arogya Yojana provides health insurance coverage for the underprivileged.

Reason: PMJAY aims to cover secondary and tertiary care hospitalisation expenses for families BPL

1

39 Assertion: Kangaroo Mother Care reduces the risk of hyperthermia in newborns

Reason: Kangaroo Mother Care is a method to treat low birth weight babies

3

40 Assertion: World Health Organisation's "Health for All" initiative was launched in 1981.

Reason: Health for all initiative provides free health care to all citizens globally.

5

Next set of Qns

- a . - Both A and R are true and R is the correct explanation of A.
- b . - Both A and R are true but R is not the correct explanation of A.
- c . - A is true but R is false.
- d . - A is false but R is true

(Here the answer is a)

41 . Assertion (A) : IGRA is an accurate test for TB

Reason(R) : IGRA is replacing TB skin test

C

42. Assertion (A): Kangaro mother care

is used for Low birth weight babies

Reason(R): It can lead to decreased mortality and early hospital discharge

A

43. Assertion (A): Incubation of rabies is highly variable

Reason(R): It is usually longer in severe bites

C

44. Assertion (A): ORS used currently has osmolarity of 245 mOsm/l

Reason(R): It can reduce the chance of hypertonicity on net fluid absorption

A

45. Assertion (A): Minimum 4 antenatal visits are recommended for mothers

Reason(R): One of the most important objectives of it is to detect high risk cases

A

The following

- a) assertion and reason are both true and reason is the correct explanation for assertion
- b) assertion and reason are both true and reason is not the correct explanation for assertion
- c) assertion is true and reason is false
- d) assertion is false and reason is true
- e) assertion is false and reason is false

46. A: If the child's weight for age is $<-3SD$, it is termed as undernourished

R: Position of dots in the growth chart is important than direction of curve

D

47. A: DEC is safe and effective drug used in filariasis

R: DEC cause rapid disappearance of adult infective stage of the worm from the circulation

A

48. A: Goal is planned end point of all activities; it is either achieved or non-achieved

R: Goals are constrained by me and existing resources.

A

49. A: Do not give NSAIDS to dengue patients

R: NSAIDS can aggravate bleeding and gastritis in dengue patients

A

50. A: local treatment of wound is

important in animal bite management
R: purpose of local treatment is to remove as much as virus from wound site before it gets into the nerve endings

A

Assertion reasoning

1. Both A and R are true, and R is the correct explanation of A.
2. Both A and R are true, but R is not the correct explanation of A.
3. A is true, but R is false.
4. A is false, but R is true.

51. A: BCG vaccine provides protection primarily against severe forms of tuberculosis in children.

R: BCG vaccine induces strong immunity against *Mycobacterium tuberculosis* in all age groups.

2

52. A: Population-wide interventions like salt reduction and trans-fat elimination are more cost-effective than individual-based interventions for hypertension and cardiovascular disease control.

R: Lifestyle modification at the individual level requires sustained behaviour change, which has higher associated costs and lower compliance rates compared to population-wide measures.

1

53. A: Copper T 380A is an effective Contraceptive method that provides protection for up to 10 years.

R: Copper T 380A prevents pregnancy by acting as a barrier to

sperm transport.

3

54.A: The mental health gap is a key global challenge due to a lack of mental health professionals in low- and middle-income countries.

R: Task-shifting strategies empower primary care providers to deliver mental health services effectively.

1

55.A: The International Health Regulations (IHR) 2005 focus primarily on controlling communicable diseases to prevent global pandemics.

R: The IHR (2005) is designed to address a broad spectrum of public health emergencies, including chemical, biological, and radiological hazards, beyond communicable diseases.

4

56. Assertion A - Syndromic approach

using flow charts are more cost effective than diagnosis based on Lab tests in STDs in a primary setting

Reason R - Lab tests are more time consuming and expensive

a) A and R correct R explains A

b) A and R correct R does not explain A

c) A is correct R is incorrect

d) A is incorrect R is correct

(A)

57. Assertion A - Cost benefit analysis is a better management

technique than cost effective analysis in assessing health related outcome

Reason R - In assessing the health related outcomes both monetary as well as results achieved must be measured.

- a) A and R correct R explains A
- b) A and R correct R does not explain A
- c) A is correct R is incorrect
- d) A is incorrect R is correct

(A)

58. Assertion A - Mass vaccination are NOT advised in disasters

Reason R Sterilization techniques and supervision may not be adequate

- a) A and R correct R explains A
- b) A and R correct R does not explain A
- c) A is correct R is incorrect
- d) A is incorrect R is correct

(A)

59 Assertion A - Annual Parasite Incidence is an index of Operational efficiency

Reason R - Annual Blood

Examina on rate of at least 10% is necessary for operational efficiency

- a) A and R correct R explains A
- b) A and R correct R does not explain A
- c) A is correct R is incorrect
- d) A is incorrect R i s correct

(d)

60. Asser on A - Urine sugar estimation is an early screening method in diabetes

Reason R – Glucose appears in urine in the early phases of diabetes.

- a) A and R correct R explains A

- b) A and R correct R does not explain A
- c) A is correct R is incorrect
- d) A is incorrect R is correct

(a)

Q - mcq

MCQs

1 ASHA is located at

PHC(grassroots) level of the health care delivery system

2 Longest path in a network analysis is called

Critical path

3 World mental health day is observed on

10 October

4 What is 'O' in GOBI FFF?

Oral rehydration

5 Koplik spots are seen in?

Measles

6 Meningococcal vaccine available is

a) ACW135Y/

b) ABCW135

c) CYW 135B

d) ABCY

(a)

7 Obesity indices are:

a) Brocas index

b) Ponderal index

c) Quetelet index

d) all of the above

(d)

8 Births in India must be registered within:

a) 7 days

b) 14 days

c) 21 days

d) 1 month

(c)

9 Most cost-effective family planning

method is:

- a) vasectomy
- b) tubectomy
- c) CUT
- d) oral pills

(a)

10 Gerontology is the study of:

- a) Infants
- c) Adolescents
- b) Reproductive age group
- d) Old age

(d)

11 When was the last known case of smallpox reported in India?

- a) 1975
- b) 1976
- c) 1977
- d) 1980

(a)

12 A attainment of a level of health that will enable every individual to lead a socially and economically productive life-this is WHO definition for

- a) Primary health care
- b) Health Promotion
- c) Health for all
- d) Universal health coverage

(c)

13 GOBIFFF campaign is promoted by

- a) WHO
- b) UNESCO
- c) UNICEF
- d) USAID

(c)

14 Benefit of Number of deaths prevented is an expression of

- a) Cost benefit analysis
- b) Cost Accounting
- c) Input Output Analysis
- d) Cost Effective Analysis

(d)

15 . DASH Diet is advised for patients with

- a) Dyslipidemia
- b) Hypertension
- c) Diabetes
- d) Renal failure

(b)

16 According to IMNCI, fast breathing in 5 month child is defined as

- a) >30/min
- b) >40/min
- c) >50/min
- d) >60/min

(c)

17 Which among the following is an RNTCP software online to monitor the data of TB patients and to control program?

- a)DOTS 99
- b)NIRNAY
- c)NIKSHAY
- d)NISCHAY

(c)

18 Eligible couple is

- a) Married couple
- b) Married couple with husband in reproductive age
- c) Married couple with wife in reproductive age
- d) none

(c)

19.The best indicator of health in community is

- a) MMR
- b) IMR
- c) Life expectancy
- d) NMR

(a)

20 Mental retardation is now replaced with

- a) Mentally challenged

- b) Mentally deficient
- c) Mentally disabled
- d) Intellectual disability

(d)

21 What is the primary objective of the Janani Suraksha Yojana (JSY) under the National Rural Health Mission?

- A) Promote male sterilization
- B) -Reduce maternal and neonatal mortality by promoting institutional deliveries
- C) Provide free immunization for children
- D) Offer health insurance for the elderly

(B)

22 Kayasanur Forest Disease (KFD), an emerging disease in India, is transmitted primarily through which vector?

- A) Mosquito
- B) Tick
- C) Flea
- D) Sandfly

(B)

23 The Zika virus, which has been reported in parts of India, can cause severe birth defects such as microcephaly. How is this virus primarily transmitted?

- A) Through contaminated water
- B) Through respiratory droplets
- C) By Aedes mosquitoes
- D) Through sexual contact only

(C)

24 Which national health program aims at improving nutrition and providing supplementary Nutrition to children and pregnant women?

- A) Poshan Abhiyaan
- B) National AIDS Control Programme
- C) National Mental Health Programme
- D) Pradhan Mantri Surakshit Matritva Abhiyan

(A)

25 What is the purpose of the Pradhan Mantri Jan Arogya Yojana (PM-JAY)?

- A) Provide free health insurance coverage to low-income families
- B) Offer financial incentives for institutional deliveries
- C) Reduce malnutrition in children under 5 years
- D) Promote vaccination for all children under 2 years

(A)

26 Which type of diabetes is characterized by an autoimmune response against insulin producing cells in the pancreas?

- A) Type 1 Diabetes
- B) Type 2 Diabetes
- C) Gestational Diabetes
- D) Diabetes insipidus

(A)

27 A subcentre in a hilly area caters to a population of:

- A) 1000
- B) 2000
- C) 3000
- D) 5000

(C)

28 Modifiable risk factor for hypertension is

- A) Ethnicity
- B) Age
- C) Sex
- D) Obesity

(D)

29 Desk for school students is

- A) Minus desk
- B) Plus desk
- C) Zero desk
- D) All the desks

(A)

30 "GOBI" campaign is promoted by which international agency

- A) WHO
- B) UNICEF
- C) World Bank
- D) UNFPA

(B)

31 Concept of multi purpose workers was given by:

- A) Mudaliar committee
- B) Srivastava committee
- C) Kartar Singh committee
- D) Mukherjee committee

(C)

32 International Health Regulations covers all of the following except:

- a) Cholera
- b) HIV/AIDS
- c) Plague
- d) Yellow fever

(b)

33 Benefit of the programme, compared with cost incurred in it

- a) Cost Benefit Analysis
- b) Cost effective analysis
- b) Cost Accounting Analysis
- d) Network Analysis

(a)

34 Planned end-point of all activities in planning

- a) Goal
- b) Objective
- c) Target
- d) Indicator

(b)

35 If the Birth rate of a Sub-centre with 3000 population is 20/1000 then expected number of pregnancies in a year will be

- a) 60
- b) 66
- c) 100
- d) 110

(a)

36 which is a bacterial zoonosis

- a) Chikungunya
- b) Japanese Encephalitis
- c) Leptospirosis
- d) KFD

(c)

37 The objective of National Population Policy 2000 was to bring down

- A. The birth rate to 31 per 1000
- B. The TFR to replacement level
- C. The Net Reproduction Rate to 2
- D. Average family size to 1

(B)

38 Under National Rural Health Mission, the target is to have one Block level Hospital in every:

- A. District
- B. 100,000 population or 100 villages
- C. 50,000 population or 50 villages
- D. 30,000 population

(B)

39 The following are examples of risk-factor intervention trials for Coronary Heart Disease except

- A. MRFIT multiple risk intervention trial
- B. Stanford Heart Disease Prevention Program
- C. Framingham Heart Study
- D. North Karelia Project, Finland

(c)

40 The National Health Policy 2017 recommended delivery of Comprehensive Primary Health Care as a basic pillar of Ayushman Bharat EXCEPT establishment of

- A. Community Health Centers providing specialized care
- B. Health & Wellness Centers with emphasis on prevention & health promotion
- C. First Referral Unit providing specialized care
- D. Gymnasium and Fitness counselling

(d)

41 The core services supported by the International Agency UNICEF are EXCEPT:

- A. Child Health
- B. Child Labour
- C. Child Nutrition
- D. Child Education formal & non-formal

(b)

42 Pathogen most commonly associated with bacterial gastroenteritis is:

- a. E.Coli
- b. Campylobacter
- c. Salmonella
- d. Clostridium difficile

(b)

43 Parameter used to measure the operational efficiency of malaria control in NVBDCP is:

- a. API
- b. Slide positivity rate
- c. Annual falciparum index
- d. ABER

(d)

44. RDA of Calcium for elderly individuals to prevent osteoporosis

is:

- a. 400 mg
- b. 600 mg
- c. 800 mg
- d. 1000-1200 mg

(d)

45. The key focus of the National Mental Health Program is:

- a. Mental illness prevention
- b. Mental health awareness
- c. Mental health services integration

d. Research & Development

(c)

46. In UNICEF's GOBI Campaign, "O" stands for:

- a. Oral Contraceptives
- b. Obesity
- c. Oral Rehydration therapy
- d. Care of Orphan children

(c)

47. Which of the following is drug of choice for chemoprophylaxis of H1N1 fever

- a. Acyclovir
- b. Zanamivir
- c. Oseltamivir
- d. Ganciclovir

(c)

48. Global plan's 90 - 90 - 90 targets are set for the following disease

- a. Blindness
- b. Tuberculosis
- c. Trachoma
- d. Tetanus

(c)

49. One of the following is considered to be the amplifier of JE transmission cycle

- a. Pig
- b. Duck

(a)

c. Pond herons

d. Horse

50. One of the following is not a Quantitative method of management

a. Cost benefit analysis

b. Cost effective analysis

c. Model

d. Personnel management

(b)

51. Drug of choice for Cholera chemoprophylaxis is

a. Cotrimoxazole

b. Amoxicillin

c. Tetracycline

d. Ciprofloxacin

(c)

52. Parameter used to measure the operational efficiency of malaria control in NVBDCP is

a. API

b. Slide Positivity Rate

c. Annual Falciparum Index

d. ABER

(d)

53. In UNICEF's GOBI Campaign "O" stands for

a. Oral contraceptives

b. Obesity

c. Oral Rehydration Therapy

d. Care of Orphan children

(c)

54. A first generation Intra Uterine Device is

a. Lippes Loop

b. CuT

c. NovaT

d. Progestasert

(a)

55. World Breastfeeding week is observed on

a. First week of September

b. First week of August

c. First week of July

(b)

d. First week of March

56. State with single digit IMR is

a. Kerala

b. Goa

c. Tamil Nadu

d. Delhi

(a)

57. Population covered by urban CHC is:

a) 1-1.5lk

b) 75k-1.25LK

c) 1.5lk-21k

d) >2.5lk

(d)

58. Number of regions of WHO:

a) 6

b) 2

c) 8

d) 7

(a)

59. Ujwala Scheme is for the prevention of

a) malnutrition

b) domestic violence

c) child trafficking

d) disability

(c)

60. PERT is a technique in:

a) network analysis

b) CEA

c) CBA

d) input output analysis

(c)

61. What type of host is man in Japanese encephalitis?

a) definitive host

b) intermediate host

c) dead end host

d) epidemic typhus

(c)

62 Low Osmolality ORS is considered superior to standard ORS because it:

- a) Reduces sodium load while increasing glucose concentration
- b) Improves absorption of water without causing hyponatremia
- c) Balances bicarbonate and chloride levels effectively
- d) Contains potassium and citrate at higher levels than plasma

(b)

63. Multi- drug-resistant TB is primarily attributed to:

- a) Poor efficacy of first-line anti-TB drugs
- b) Spontaneous genetic mutations of *Mycobacterium tuberculosis*
- c) Non-compliance with directly observed therapy (DOTS)
- d) Extensive use of rifampicin in latent TB

(c)

64. Which of the following is NOT an explicit goal of the WHO Global Action Plan for Non-Communicable Diseases (2013-2030)?

- a) 25% reduction in premature NCD mortality by 2030
- b) 30% reduction in tobacco use
- c) 50% increase in physical activity levels
- d) 25% reduction in raised blood pressure prevalence

(c)

65. The indigenous test kit developed by collaboration of ICMR, Delhi & NIV, Pune COVID antibody detection is known as:

- a) Nischai ELISA
- b) Aarogya ELISA

- c) Chhaya ELISA
- d) Kavach ELISA

(d)

66. Rocky Mountain spotted fever cause & vector are:

- a) R. akari & mite
- b) R. conori & ck
- c) R. rickettsia & tick
- d) R. provazaki & mouse

(c)

67. Visual inspection with acetic acid (VIA) is a method of screening for

- a) Cervix
- b) Oral cavity
- c) Stomach
- d) Prostate

(a)

68 The colour of Iron & folic acid tablet given to pregnant & lactating mother is

- a) Blue
- b) Pink
- c) White
- d) Red

(d)

69. Health and Wellness centres were introduced under

- a) Ayushman Bharat- Pradhan Mantri Jan Arogya Yojana
- b) National Health Mission
- c) Atal Mission for Rejuvenation and Urban Transformation (AMRUT) 2.0
- d) LaQshya

(a)

70 All are warning signs of poor mental health EXCEPT

- a) always worried
- b) inability to concentrate because of unrecognized reasons
- c) over eating without reason

d) loose your temper easily and often

(c)

71. Health care establishments should

be registered under

a) National medical council

b) National medical commission

c) Clinical Establishment Act

d) Medical commission of India

(c)

72. True about Indian reference male is a) Weight 60kg

b) BMI 20.3

c) Height 1.61 m

d) 8 hour sleep

(d)

73. All are primary levels of prevention except?

a) Health promotion

b) specific-protection

c) Early diagnosis and treatment

d) Immunization

(c)

74. ICDS does not cover

a) Nutritional supplementation

b) Formal education

c) Health education

d) Immunization

(b)

75. The socio-economic /housing scale development for rural set up

a) Pareek

b) Kuppuswami

c) Bhore

d) Adson's scale

(a)

76. Normal range of BMI Asian individual is

a) 18.5 to 24.99

b) 22.5 to 24.99

c) 18.5 to 22.5

d) 18.5 to 22.9

(d)

77. Which of the following is known as the "Heart of ICDS system"?

- a) Mother and children
- b) CDPO
- c) Primary Health Centre
- d) Anganwadi

(d)

78. Which of the following vaccine is not administered at birth

- a) OPV
- b) BCG
- c) Hepatitis B
- d) Hib

(d)

79. At primary health centre (PHC) level vaccines are stored in the

- a) cold box
- b) ILR
- c) Deep freezer
- d) walk in cold room

(b)

80. BCG vaccination is given

- a) prodermally
- b) subcutaneously
- c) intramuscularly
- d) intradermally

(d)

81. How many ice packs are used to line a vaccine carrier

- a) 2
- b) 3
- c) 4
- d) 6

(c)

82. According to WHO exclusive breast milk is given upto:

- a) 6 months
- b) 4 months
- c) 8 months
- d) 10 months

(a)

83. Which of the following is known as "Father of Public Health"

Tuberculosis

b) cholera

c) John snow

d) Louis Pasteur

(b)

84. World Tuberculosis Day Observed on

a) 4th February

b) 7th April

c) 24th March

d) 31st May

(c)

85. Which vaccine is not contraindicated in pregnancy

a) Rubella

b) varicella

c) Rabies

d) Measles

(c)

86. Which of the following is called first immunization of the baby

a) colostrum

b) Handing over the baby to mother

c) OPV

d) DPT+BCG

(a)

87. The additional energy requirement per day for a pregnant woman in India is

a) 350 kcal

b) 520 kcal

c) 550 kcal

d) 600 kcal

(a)

88. Highest protein content is in

a) Red gram

b) Black gram

c) Bengal gram

d) Soyabean

(d)

89. which of the following methods is used for estimation chlorine demand of water

a) chlorometer

b) Horrock's apparatus

c) Double pot method

d) Berkefeld filter

(b)

90. Modified Kuppuswami Scale include all criteria for socioeconomic status except:

a) Income of family per month

b) Education of head of family

c) Occupation of head of family

d) income of head of family

(d)

91. Hidden Hunger term refers to deficiency of

a) Macro nutrients

b) Vitamins

c) Calories & Proteins

d) Calories alone

(b)

92. First referral unit is

a) Sub-center

b) PHC

c) CHC

d) Medical college and hospital

(c)

93. Which is the cut off level of waist hip ratio in women indicating abdominal fat accumulation

a) 0.75

b) 0.85

c) 0.95

d) 1.05

(b)