



INI-CET **MAY '26**

RECALL SESSION

**A Mega Recall Session By
India's Top Educators**



Q. A patient presents with fever, headache, neck stiffness, and features suggestive of meningitis. CSF examination is performed, and Nigrosin stain demonstrates encapsulated budding yeast cells. Which of the following organisms is the most likely cause?

- A. Cryptococcosis
- B. Aspergillus
- C. Pneumocystis
- D. Histoplasma



Q. A 32-year-old woman with a history of splenectomy presents to the emergency department with high-grade fever, vomiting, hypotension, and rapidly progressive septic shock. Her symptoms began suddenly 2 weeks after a minor febrile illness. Which of the following organisms is the most likely cause?

- A. *Staphylococcus aureus*
- B. *Streptococcus pneumoniae*
- C. *Escherichia coli*
- D. *Pseudomonas aeruginosa*



Q. Which of the following statements is INCORRECT regarding the sterilization properties of the image shown below?

- A. Prions are completely destroyed at 121°C for 15 minutes
- B. It is a method of moist heat sterilization
- C. Standard autoclaving is performed under pressure
- D. It is commonly used for sterilizing culture media





Q. Toxic shock syndrome toxin produced by *Staphylococcus aureus* acts by binding to:

- A. $V\beta$ region of T-cell receptor and MHC class II
- B. $V\alpha$ region and MHC class I
- C. CD4 receptor only
- D. B-cell receptor and IgG



Q. A 28-year-old woman presents with:

- **Greenish frothy vaginal discharge**
- **Vulvovaginal irritation**
- **Vaginal pH is elevated**
- **Negative Amsel criteria**
- **Positive whiff test (fishy odor)**

Wet mount examination is performed. What is the most likely morphology of the causative organism?

- A. Motile, pear-shaped flagellated trophozoite with an undulating membrane**
- B. Budding yeast cells with pseudohyphae**
- C. Intracellular Gram-negative diplococci within neutrophils**
- D. Clue cells with adherent coccobacilli**



Q. A young female presents with fatigue, pallor, and symptoms suggestive of iron deficiency anemia. Microscopic image of the stool examination is given below. Which among the following statements is correct regarding this parasite?

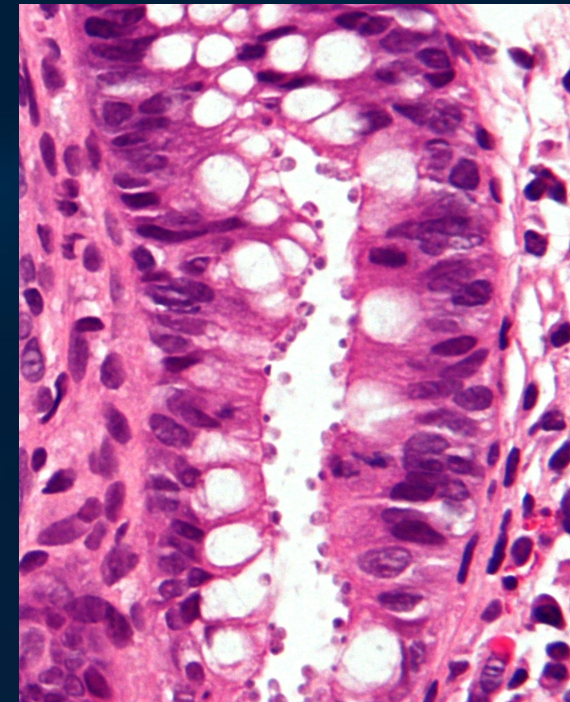
- A. Infection occurs by penetration of larvae through the skin
- B. Infection occurs by ingestion of cysts in contaminated food
- C. The image represents eggs of *Enterobius vermicularis*
- D. The parasite shown is *Ascaris lumbricoides*





Q. A 38-year-old man with advanced HIV infection (CD4 count: 60 cells/mm³) presents with chronic watery diarrhea for the past 2 months, significant weight loss, intermittent fever, and fatigue. Colonoscopy is performed, and biopsy from the colonic mucosa is shown below. What is the most likely causative organism?

- A. *Cryptosporidium parvum*
- B. *Giardia lamblia*
- C. *Cryptococcus neoformans*
- D. *Entamoeba histolytica*





Q. Which organism has two circular DNA molecules (two chromosomes)?

- A. *Vibrio cholerae*
- B. *Escherichia coli*
- C. *Salmonella typhi*
- D. *Shigella dysenteriae*



Q. A 26-year-old sexually active male presents with multiple painful lesions over the penis and scrotum for the past 2–3 days, associated with burning sensation and dysuria. On examination, there are grouped vesicles on an erythematous base over the genital region as shown below.

Which of the following is the most likely causative organism?

- A. *Haemophilus ducreyi*
- B. Herpes simplex virus infection
- C. *Treponema pallidum*
- D. *Chlamydia trachomatis*





Q. An epidemiologist investigating an outbreak observes that most affected individuals develop symptoms almost simultaneously after a single exposure event, with the epidemic curve showing a sharp rise and fall within a short time period (point-source outbreak).

Which of the following conditions is most likely to produce this type of epidemic curve?

- A. Salmonellosis
- B. Staphylococcal food poisoning
- C. Measles
- D. Typhoid fever



Q. A 35-year-old man with known HIV infection presents with fever, headache, progressive confusion, and focal neurological deficits. His CD4 count is 40 cells/mm³.

MRI brain reveals multiple ring-enhancing lesions predominantly in the basal ganglia and at the corticomedullary junction.

Which of the following is the most likely diagnosis?

- A. Cerebral toxoplasmosis
- B. CNS tuberculosis (tuberculoma)
- C. Primary CNS lymphoma
- D. Cryptococcal meningitis



Q. A 6-week-old premature infant with a prolonged NICU stay develops fever, poor feeding, lethargy, and seizures. CSF analysis is consistent with bacterial meningitis.

Which of the following is the most likely causative organism?

- A. *Haemophilus influenzae*
- B. *Streptococcus pneumoniae*
- C. *Staphylococcus aureus*
- D. *Listeria monocytogenes*



Q. A 20-year-old patient presents with headache, hydrocephalus, and cranial nerve palsies. CSF analysis shows:

- Lymphocytic predominance**
- Low glucose levels**
- High protein levels**

Which of the following is the most likely etiology?

- A. Viral meningitis**
- B. Fungal meningitis**
- C. Tuberculous meningitis**
- D. Acute bacterial meningitis**



Q. Which of the following statements about diphtheria toxin is correct?

- A. It inhibits EF-2 and has affinity for myocardium and nervous tissue
- B. It inhibits DNA gyrase and causes renal toxicity
- C. It blocks 30S ribosomal subunit and causes hemolysis
- D. It inhibits cell wall synthesis and causes neurotoxicity



Q. The virulence of *Bacillus anthracis* is mediated by

- A. pXO1 plasmid and polysaccharide capsule
- B. pXO1 plasmid and poly-D-glutamate capsule
- C. pXO2 plasmid and polysaccharide capsule
- D. pXO2 plasmid and poly-D-glutamate capsule



Q. Which of the following correctly describes antibody fragments produced by different proteolytic enzymes?

- A. Papain → produces Fc fragment and two Fab fragments
- B. Pepsin → produces two Fab fragments and Fc fragment
- C. Papain → produces $F(ab')_2$ fragment
- D. Mercaptopurine → cleaves immunoglobulins into Fab and Fc fragments



Q. Which of the following statements regarding treatment of ESBL-producing organisms is/are correct?

- 1. Piperacillin–tazobactam can be used as an alternative option in selected cases**
- 2. Carbapenems are the most reliable and effective drugs against ESBL producers**
- 3. ESBL enzymes are commonly encoded on plasmids**
- 4. First-generation cephalosporins are effective in treating ESBL infections**

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



Q. Match the following:

1. Clarithromycin	A. Streptococcus pyogenes
2. Doxycycline	B. Helicobacter pylori
3. Streptomycin	C. Chlamydia trachomatis
4. Amoxicillin	D. Mycobacterium tuberculosis

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



Q. A patient presents with fever, joint pain, and swelling. Synovial fluid analysis shows Gram-positive cocci in clusters, which are catalase-positive and sensitive to oxacillin.

Which is the most appropriate drug of choice?

- A. Vancomycin
- B. Penicillin
- C. Cloxacillin
- D. Doxycycline



THANK YOU