

## DEVELOPMENT OF GASTROINTESTINAL TRACT

- 1-LIVER
- 2-STOMACH
- 3-GALLBLADDER
- 4-UMBILICAL CORD
- 5-OMPHALOENTERIC GUT
- 6-MID GUT LOOP
- 7-SUPERIOR MESENTERIC ARTERY
- 8-INFERIOR MESENTERIC ARTERY
- 9-DORSAL PANCREATIC BUD
- 10-SPLEEN
- 11-DORSAL AORTA
- 12-SMALL INTESTINE

GIT Development -rotation of the midgut (6<sup>th</sup> week to the 12<sup>th</sup> week).  
A- Transverse section through the midgut loop showing the initial relationship of the limbs of the loop to the artery. The midgut loop is in the proximal part of the umbilical cord. -Later stage showing the beginning of midgut rotation.

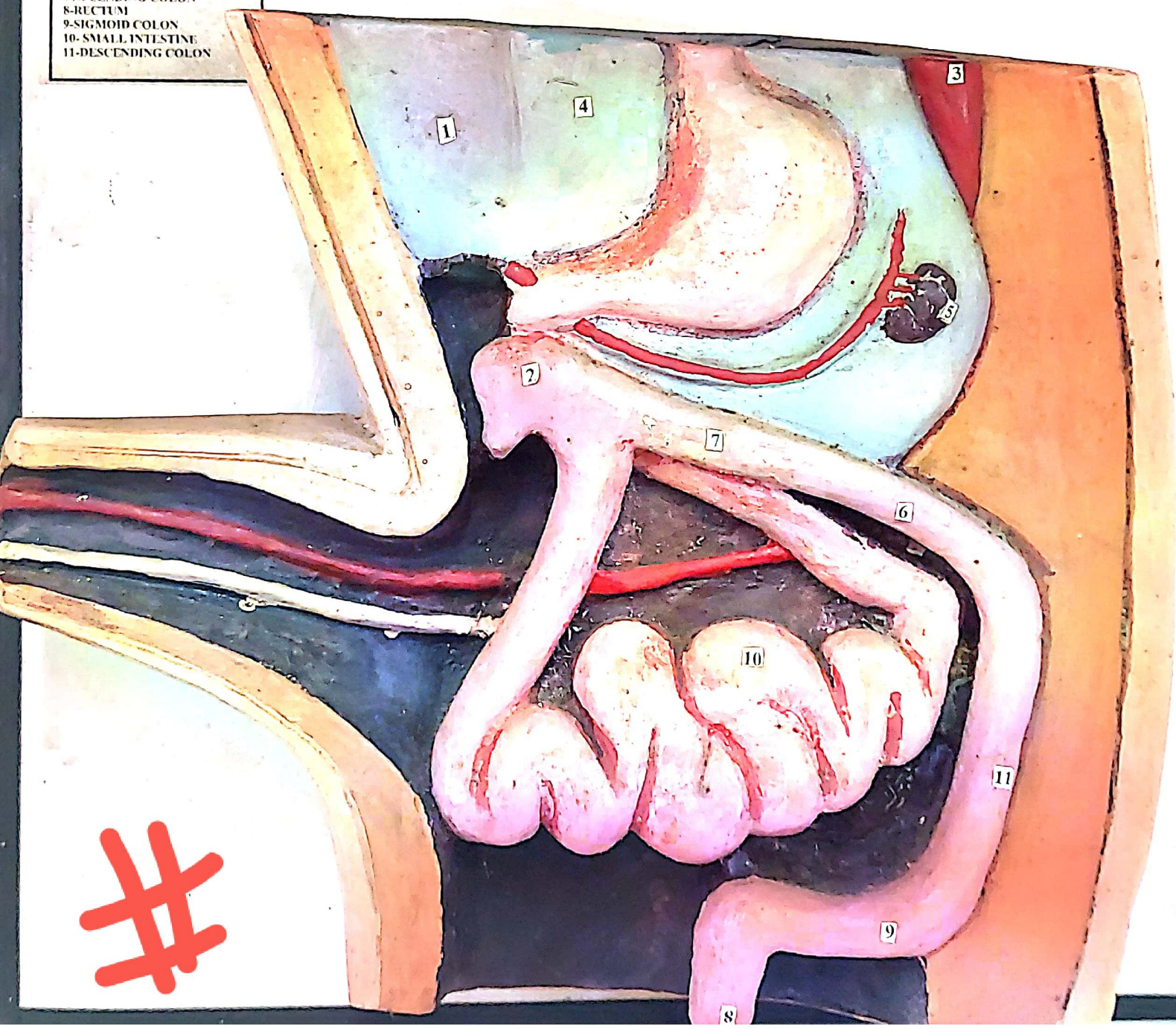


# DEVELOPMENT OF GASTROINTESTINAL TRACT

C

- 1-LIVER
- 2-CALCUM & APPENDIX
- 3-DORSAL AORTA
- 4-LESSER OMENTUM
- 5-SPLEEN
- 6-TRANSVERSE COLON
- 7-ASCENDING COLON
- 8-RECTUM
- 9-SIGMOID COLON
- 10-SMALL INTESTINE
- 11-DESCENDING COLON

GIT Development C At approximately 11 weeks, after return of intestine to the abdomen.

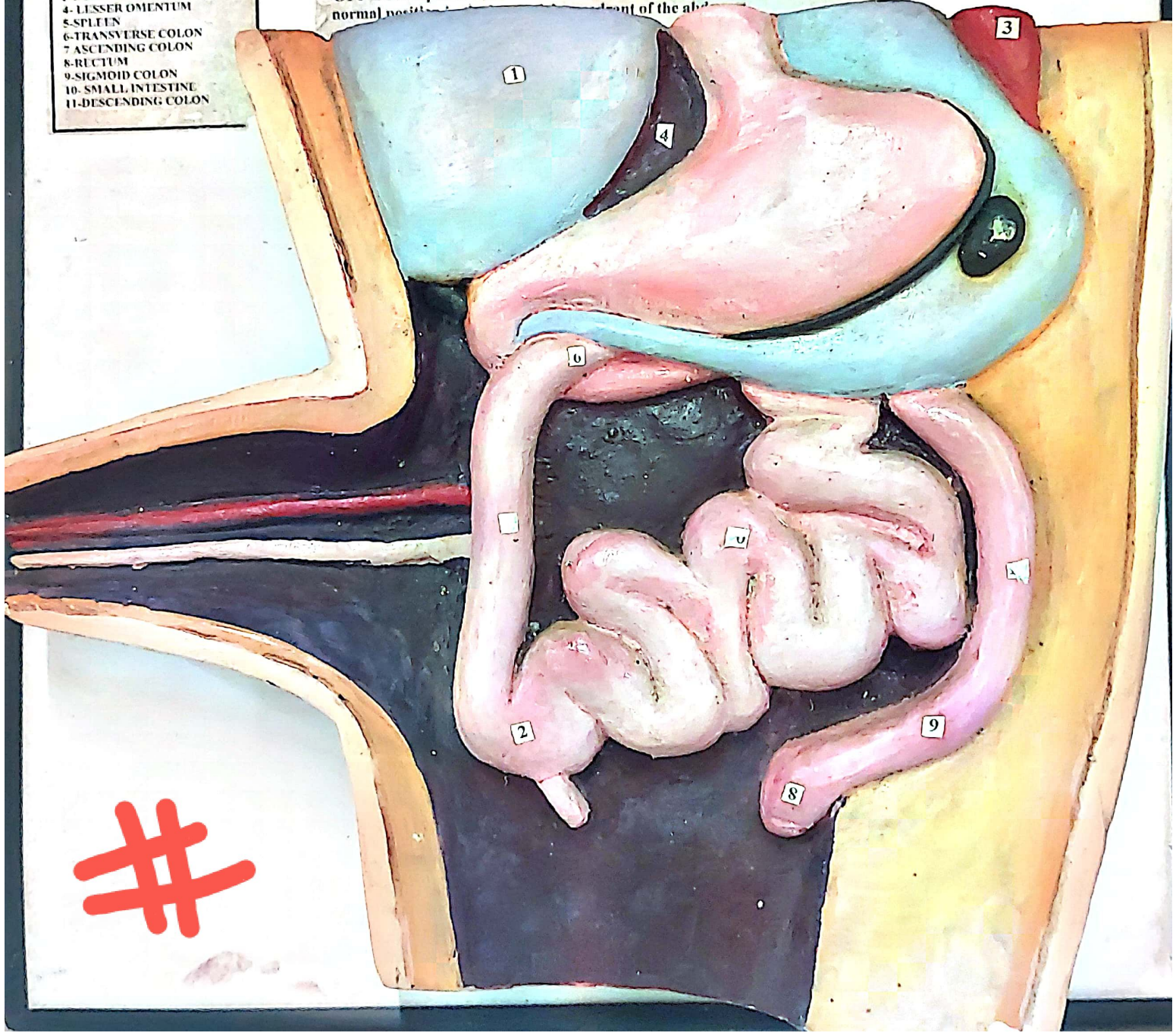


# DEVELOPMENT OF GASTROINTESTINAL TRACT

D

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GIT Development D Later fetal period, showing the cecum rotating to its normal position in front of the abdominal aorta.



# Development of GastroIntestinal system-

## Liver -3mm embryo(25 days)

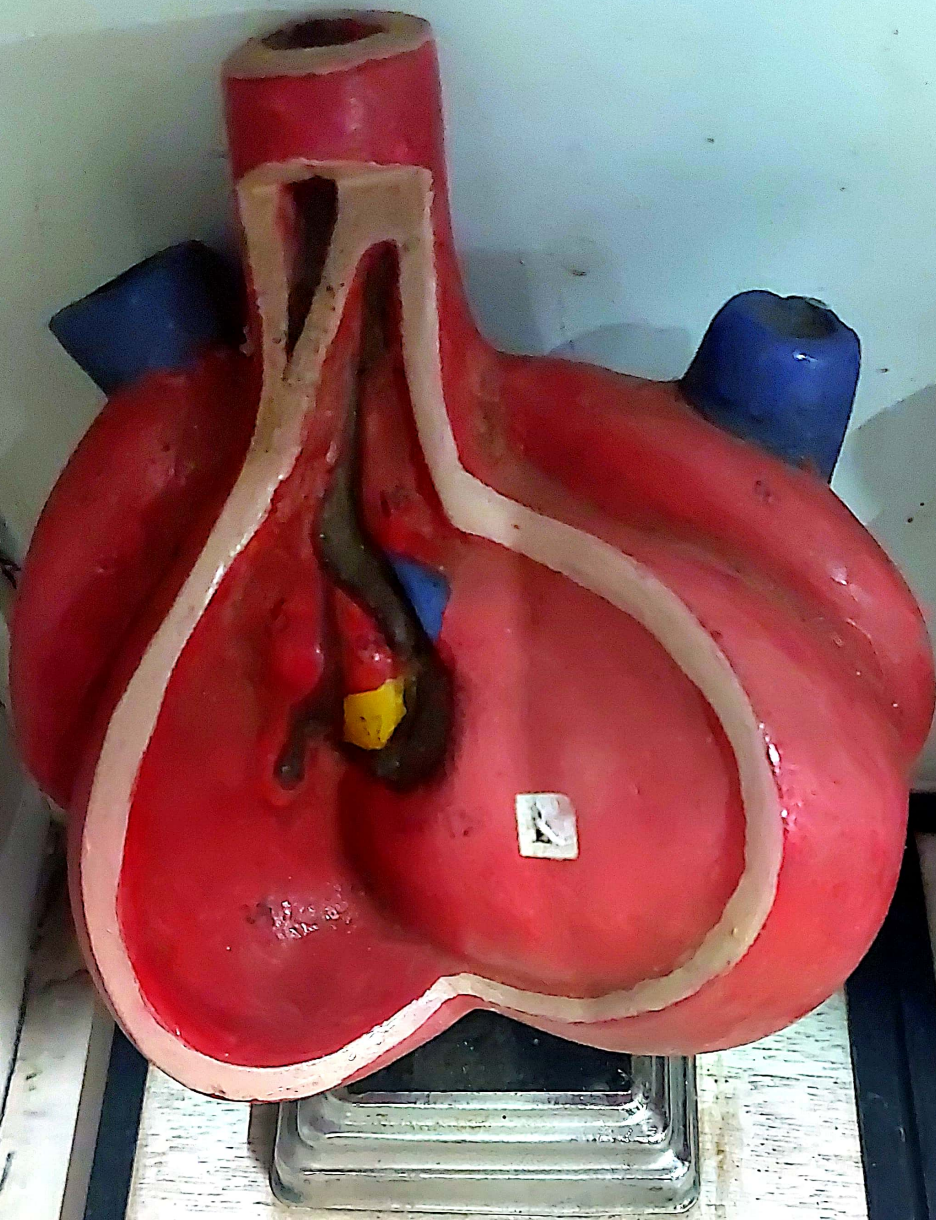
### Primitive GI-Tract and formation of Liver Bud



- 1-HEAD
- 2-VITELINE DUCT
- 3-ALIMENTOIS
- 4-CLOACAL MEMBRANE
- 5-RESPIRATORY DIVERTICULUM
- 6-STOMACH
- 7-LIVER BUD
- 8-DUODENUM
- 9-MIDGUT
- 10-HINDGUT

Development of Gastro-Intestinal system-  
Liver & Pancreas -9-mm embryo(36 days)  
Primitive GI-Tract and formation of Liver &





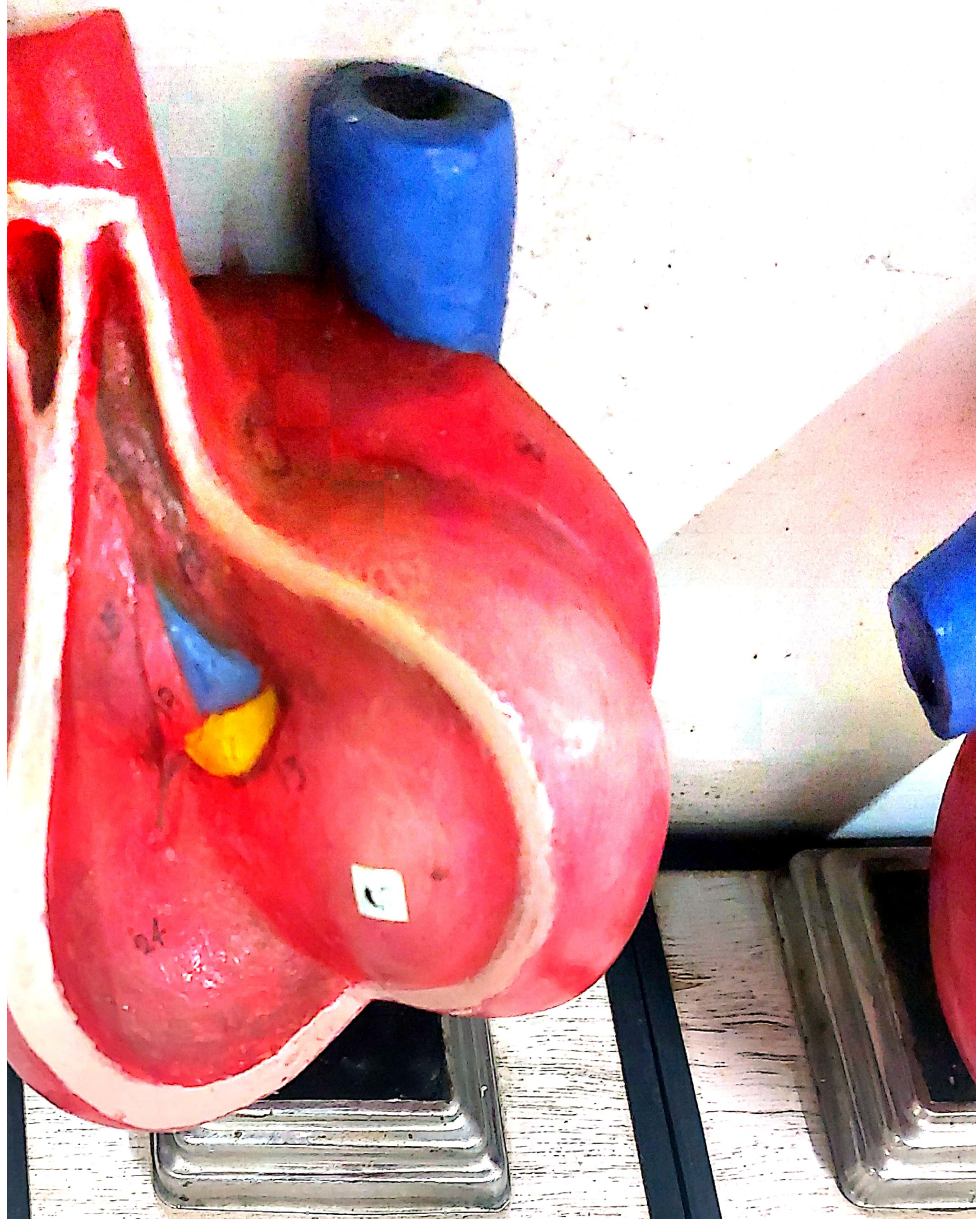
DEVELOPMENT OF INTERVENTR  
 SEPTUM (14.5 mm)

**B**

- |                                |                                         |
|--------------------------------|-----------------------------------------|
| 1. Superior Vena cava          | 13-Interventricular septum              |
| 2. Left Horn of sinus venosus  | 14-Left conotruncal ridge               |
| 3-Rt Horn of sinus venosus     | 15-Rt Bulbar ridge                      |
| 4.Sinu atrial orifice          | 16-Lt bulbar ridge                      |
| 5.Lt.Atrium                    | 17-Proliferation from endocardial ridge |
| 6-Rt.Atrium                    | 18-Proliferation from Rt bulbar ridge   |
| 7-Pulmonary vein               | 19-Proliferation from Lt bulbar ridge   |
| 8-Lt atrium                    | 20- Pulmonary Channel                   |
| 9-Rt Ventricle                 | 21-Aortic channel                       |
| 10-Rt Atrioventricular opening | 22-Interbulbar septum (Site of fusion)  |
| 11-Lt.Ventricle                | 23- Rt. Subclavian artery               |
| 12.Lt.Atrioventricular orifice | 24- Center of Rt Ventricle              |

**C**

- C-DEVELOPMENT OF INTERVENTR SEPTUM & AORTIC CHANNEL (End of 7<sup>th</sup> week)
1. Superior Vena cava
  2. Left Horn of sinus venosus
  - 3-Rt Horn of sinus venosus
  - 4.Sinu atrial orifice
  - 5.Lt.Atrium
  - 6-Rt.Atrium
  - 7-Pulmonary vein
  - 8-Lt atrium
  - 9-Rt Ventricle
  - 10-Rt Atrioventricular opening
  - 11-Lt.Ventricle
  - 12.Lt.Atrioventricular orifice
  - 13-Interventricular septum
  - 14.Left. conotruncal ridge



**C-DEVELOPMENT OF INTERVENTRICULAR SEPTUM & BULBAR RIDGES**  
(End of 7<sup>th</sup> week 20 mm Embryo)

**C**

- 1- Superior Vena cava
- 2- Left Horn of sinus venosus
- 3- Rt Horn of sinus venosus
- 4- Sinu atrial orifice
- 5- Lt. Atrium
- 6- Rt. Atrium
- 7- Pulmonary vein
- 8- Lt atrium
- 9- Rt Ventricle
- 10- Rt Atrioventricular opening
- 11- Lt. Ventricle
- 12- Lt. Atrioventricular orifice
- 13- Interventricular septum
- 14- Left. conotruncal ridge

- 15- Rt Bulbar ridge
- 16- Lt bulbar ridge
- 17- Proliferation from Rt
- 18- Proliferation from Lt
- 19- Proliferation from Lt
- 20- Pulmonary Channel
- 21- Aortic channel
- 22- Interbulbar septum (Site II)
- 23- Rt. Subclavian artery
- 24- Cavity of Rt Ventricle
- 25- Lt. Aortic Arch-IV
- 26- Rt. Common Carotid
- 27- Lt. Common Carotid

- 1- Rt. Atrium
- 2- Superior Vena cava
- 3- Inferior Vena cava
- 4- Coronary Sinus
- 5- Upper edge of septum
- 6- Septum Secundum



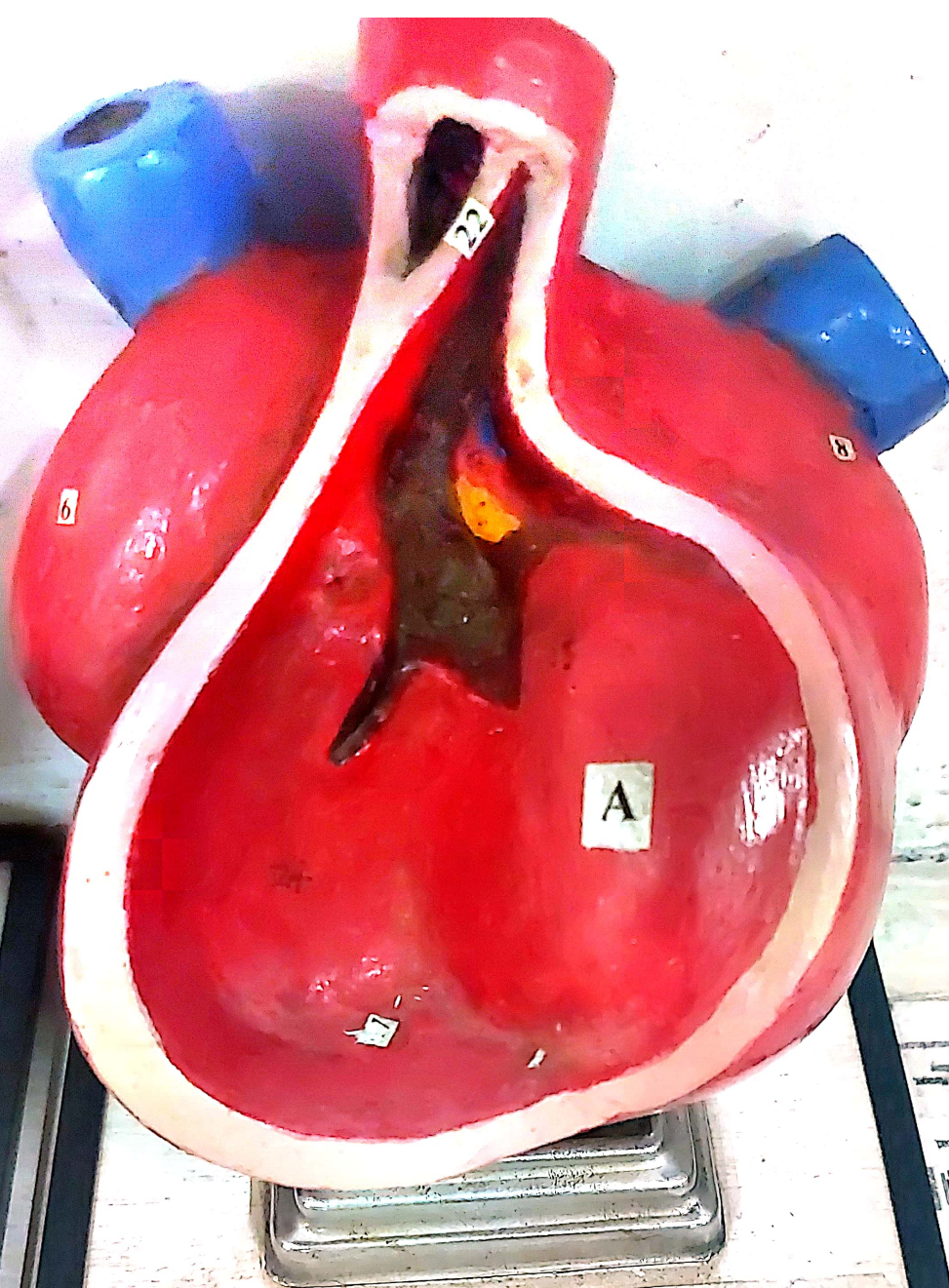
FOR INTERVENTRICULAR  
SEPTUM COMPLETED

- 1-Rt. Atrium
- 2-Superior Vena cava
- 3-Inferior Vena cava
- 4-Coronary Sinus
- 5-Upper edge of septum Primum
- 6-Septum Secundum

- 7-Foramen ovale
- 8-Fused endocardial Cushion
- 9-Rt Ventricle
- 10-Proliferation from AV-cushion
- 11-Proliferation from Lt bulbar ridge
- 12-Pulmonary artery

DEVELOPMENT  
SEPT. 1 & BULBAR RIDGE

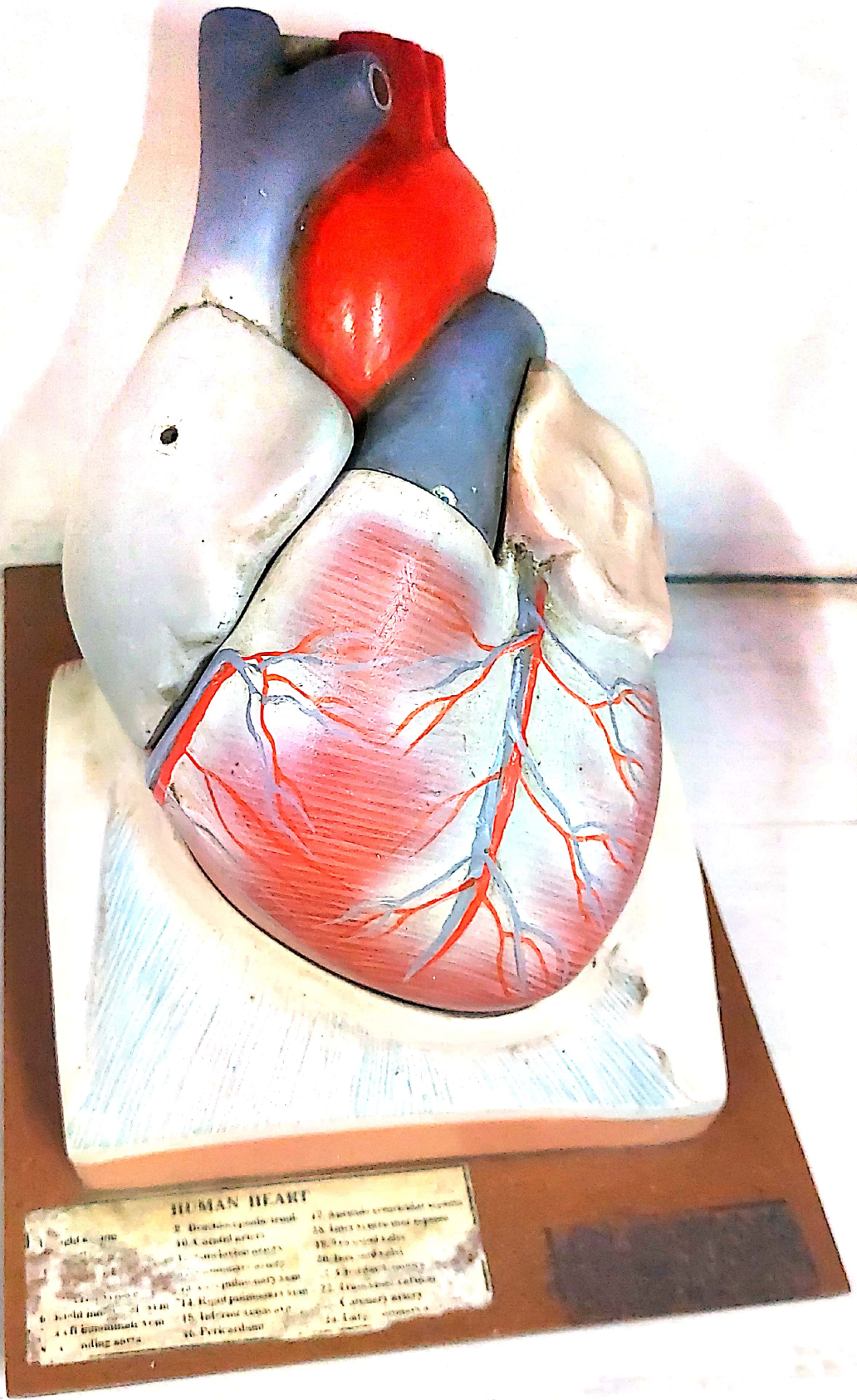
1. Superior Vena cava
2. Left Horn of sinus venosus
3. Rt Horn of sinus venosus
4. Sinu atrial orifice
5. Lt. Atrium
6. Rt. Atrium
7. Pulmonary vein
8. Lt atrium
9. Rt Ventricle
10. Rt Atrioventricular
11. Lt. Ventricle
12. Lt. Atrioventricular
13. Interventricular
14. Lt. conotruncus



**A DEVELOPMENT OF INTERVENTRIC  
SEPT. 1 & BULBAR RIDGES ( 6 weeks 12- m**

**A**

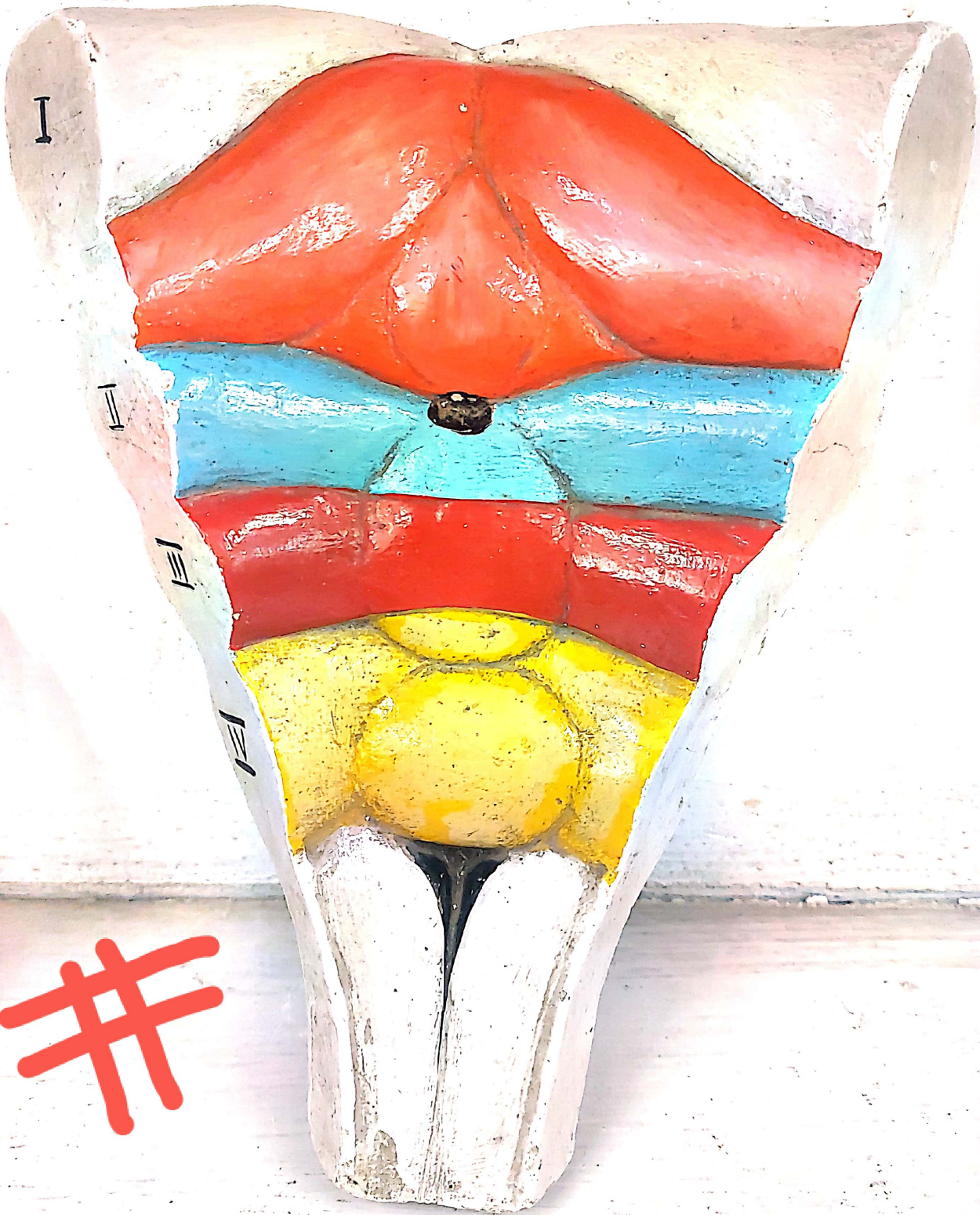
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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ol style="list-style-type: none"> <li>1. Superior Vena cava</li> <li>2. Left Horn of sinus venosus</li> <li>3. Rt Horn of sinus venosus</li> <li>4. Sinu atrial orifice</li> <li>5. Lt. Atrium</li> <li>6. Rt. Atrium</li> <li>7. Pulmonary vein</li> <li>8. Lt atrium</li> <li>9. Rt Ventricle</li> <li>10. Rt Atrioventricular opening</li> <li>11. Lt. Ventricle</li> <li>12. Lt. Atrioventricular orifice</li> <li>13. Interventricular septum</li> <li>14. Left. conotruncal ridge</li> </ol> | <ol style="list-style-type: none"> <li>15. Rt Bulbar ridge</li> <li>16. Lt bulbar ridge</li> <li>17. Proliferation from endocardium</li> <li>18. Proliferation from Rt bulbar ridge</li> <li>19. Proliferation from Lt bulbar ridge</li> <li>20. Pulmonary Channel</li> <li>21. Aortic channel</li> <li>22. Bulbar septum ( Site of fusion)</li> <li>23. Rt. bulbar vein artery</li> <li>24. Cavity of Rt Ventricle</li> </ol> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



**HUMAN HEART**

1. Right atrium	2. Deivotion squids tend	17. Inferior vena cava
3. Right ventricle	4. Aortic arch	18. Left ventricle
5. Pulmonary artery	6. Pulmonary vein	19. Coronary artery
7. Superior vena cava	8. Left atrium	20. Left ventricle
9. Inferior vena cava	10. Pericardium	21. Coronary vein
11. Right pulmonary vein	12. Left pulmonary vein	22. Left coronary artery
13. Right pulmonary artery	14. Left pulmonary artery	23. Right coronary artery
15. Pericardium	16. Coronary vein	24. Left coronary artery

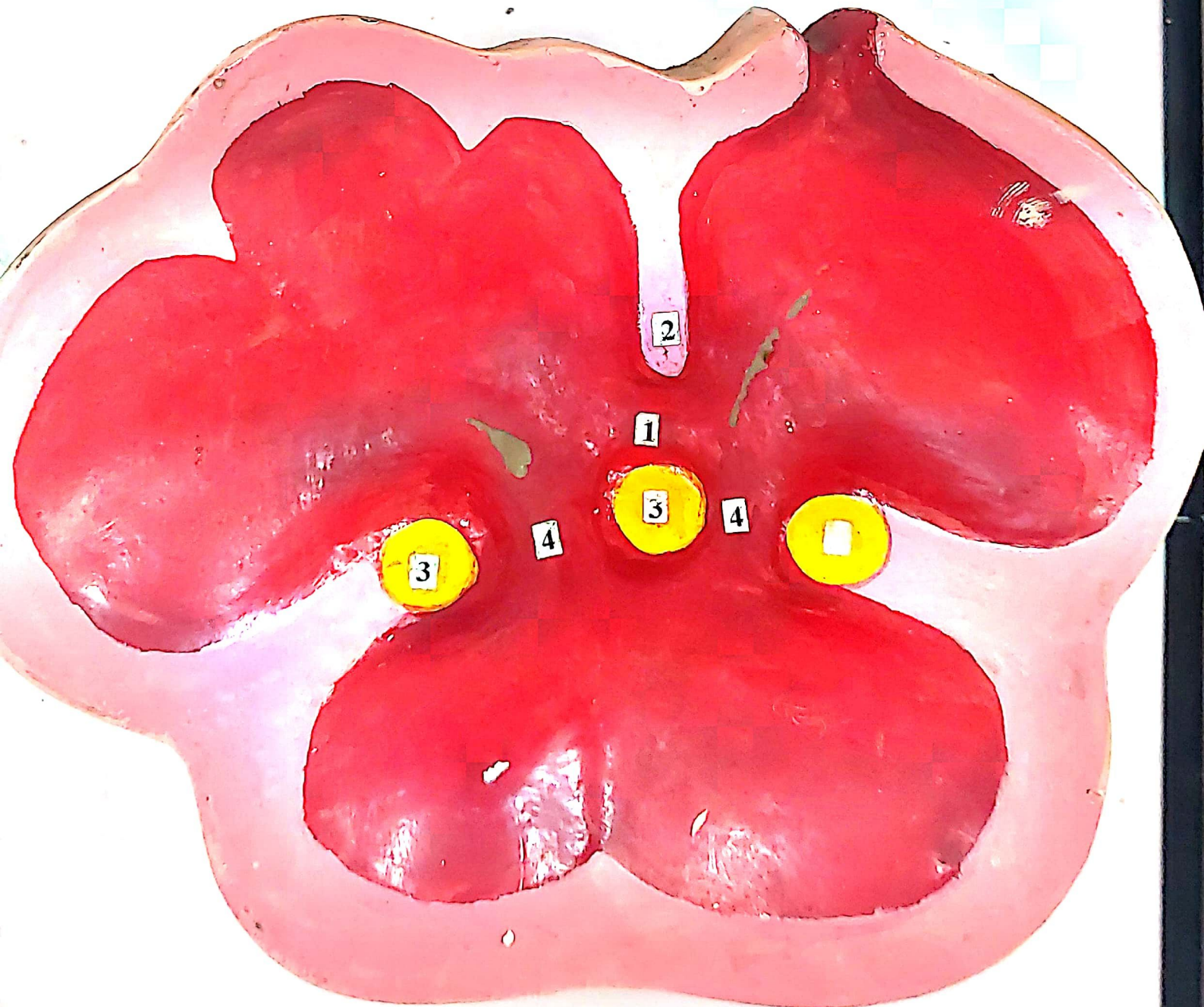




# Development of Interatrial septum-A

30 days (6-mm)

- 1-Ostium Primum
- 2-Septum Primum
- 3-Endocardial cushion
- 4-Atrioventricular canal



#



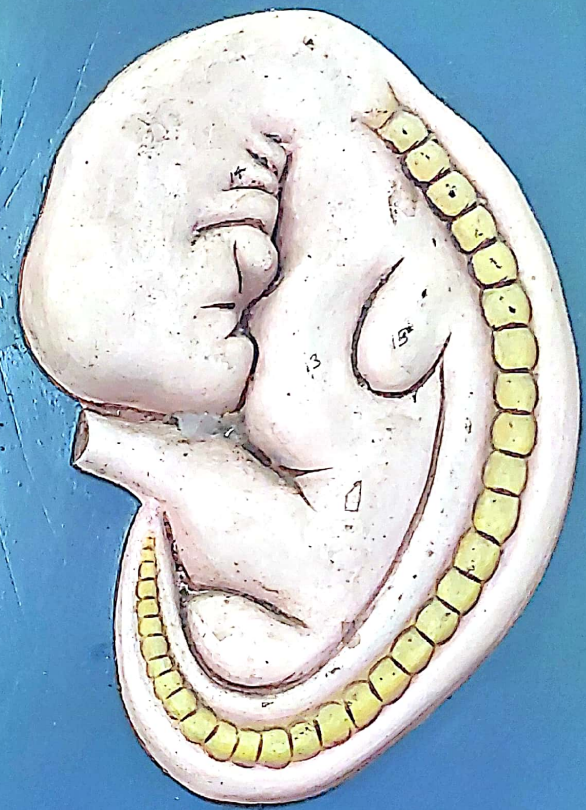
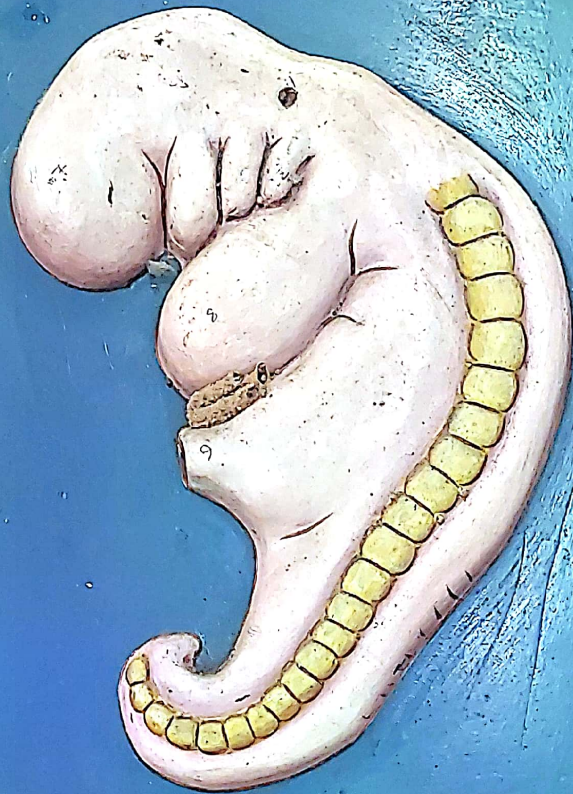
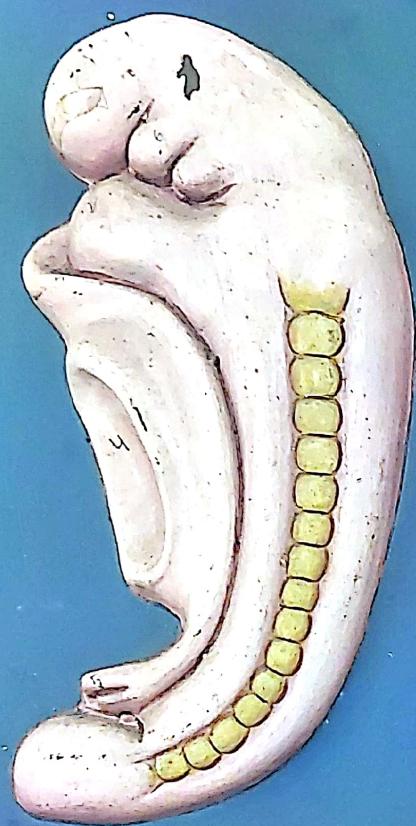


#



A. Approximately 25 days.  
B. 28 days.  
C. 5 weeks.

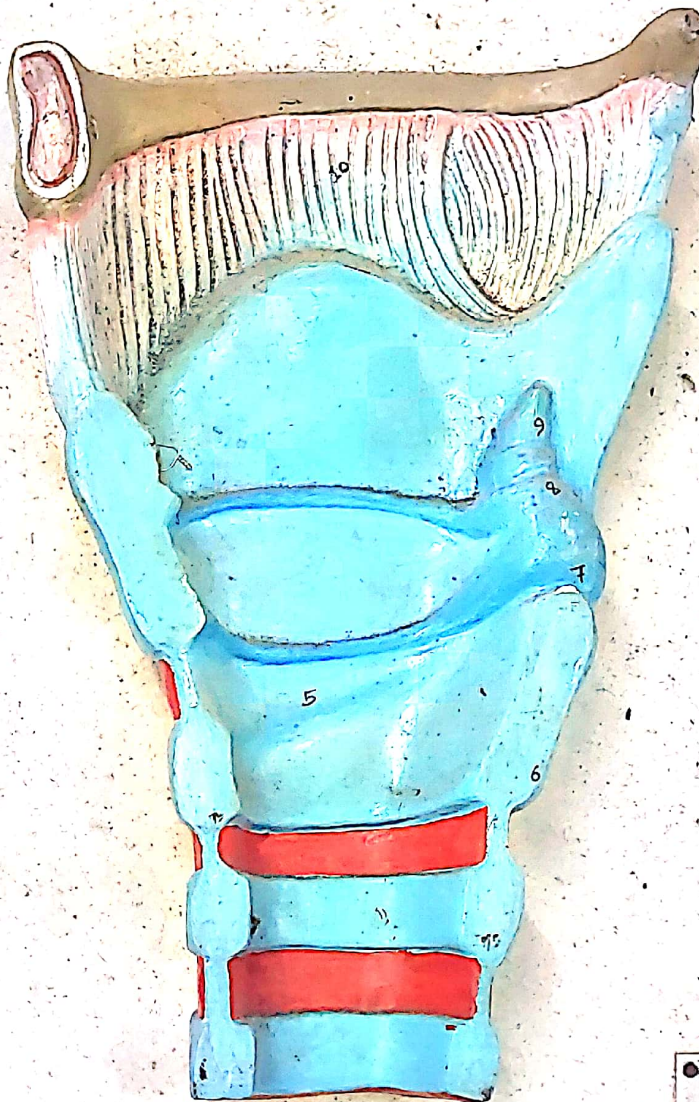
1. Cranial neuropore.
2. Pericardial bulge.
3. Cut edge of amnion.
4. Vitelline duct.
5. Connecting stalk.
6. 1<sup>st</sup> and 2<sup>nd</sup> pharyngeal arches.
7. Lens placode.
8. Heart bulge.
9. Umbilical cord.
10. Caudal.
11. Otic placode.
12. Pharyngeal arches.
13. Pericardial swelling.
14. Pharyngeal clefts.
15. Limb bud.

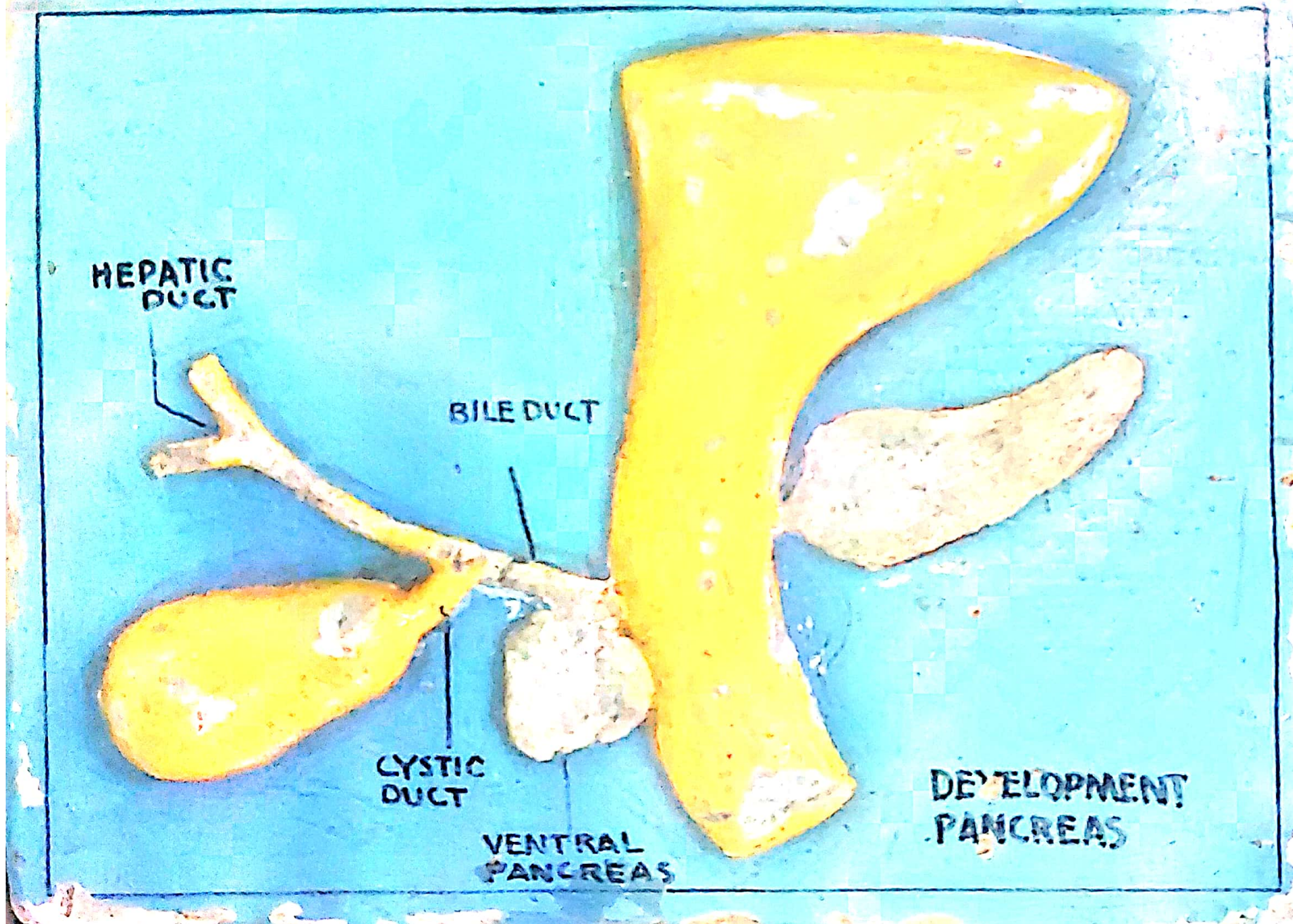


# THE LARYNX.

(SAGITTAL SECTION)

1. HYOEPIGLOTTIC LIG.
2. THYROEPIGLOTTIC LIG.
3. VOCAL LIG.
4. VESTIBULAR LIG.
5. CONUS ELASTICUS. (CRICOVOCAL MEMBRANE)
6. CRICOID CARTILAGE.
7. CRICOARYTENOID JOINT.
8. CORNICULATE CARTILAGE.
9. ARYTENOID CARTILAGE.
10. THYROHYOID MEMBRANE.





HEPATIC  
DUCT

BILE DUCT

CYSTIC  
DUCT

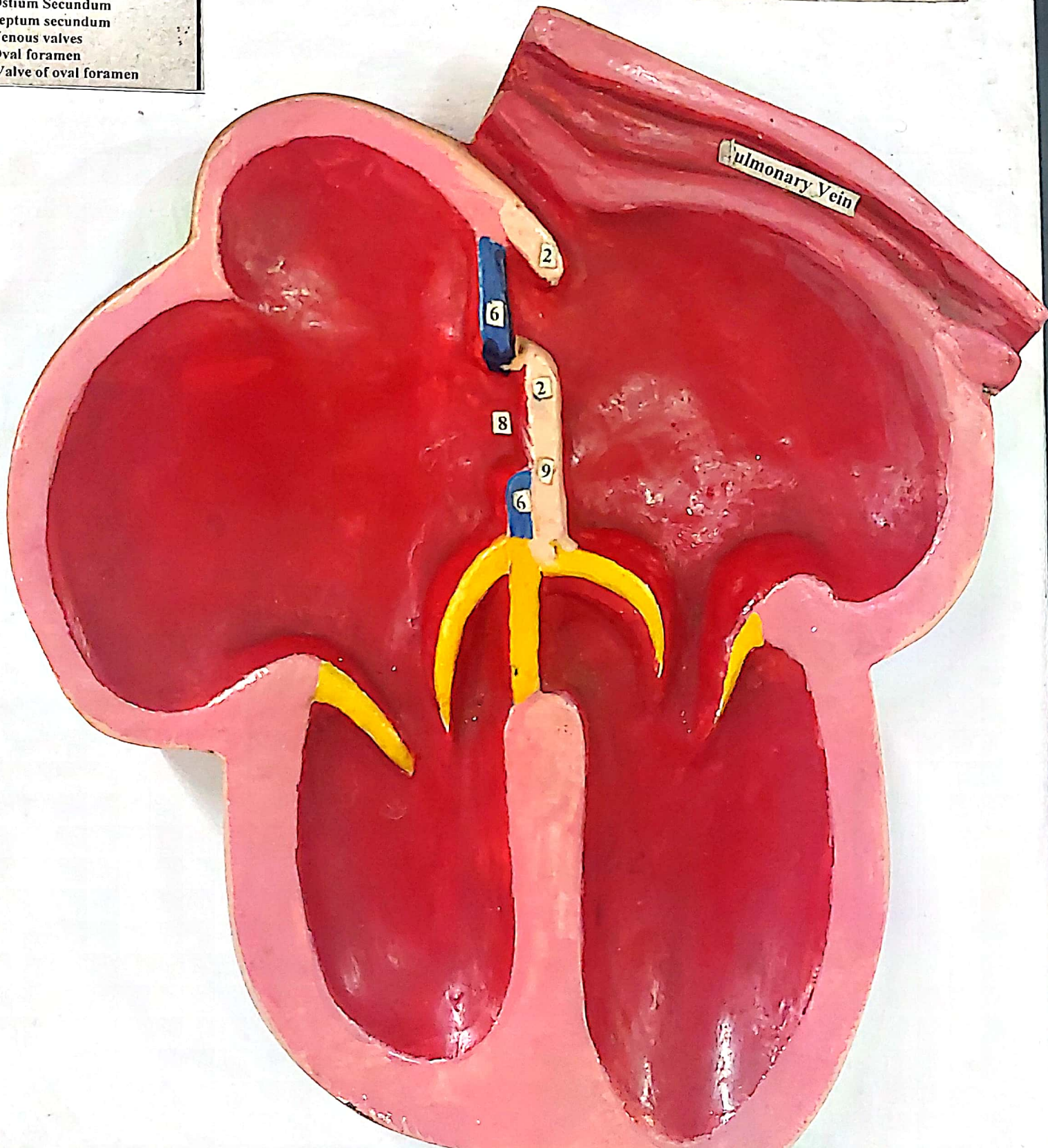
VENTRAL  
PANCREAS

DEVELOPMENT  
PANCREAS

# Development of Interatrial septum-D

D-35mm —Development of the Cushions in the atrioventricular Canal

- 1-Ostium Primum
- 2-Septum Primum
- 3-Endocardial cushion
- 4-Atrioventricular canal
- 5-Ostium Secundum
- 6-Septum secundum
- 7-Venous valves
- 8-Oval foramen
- 9- Valve of oval foramen





Emb. of 25 days

Primitive streak stage

Emb. of about 4 wks

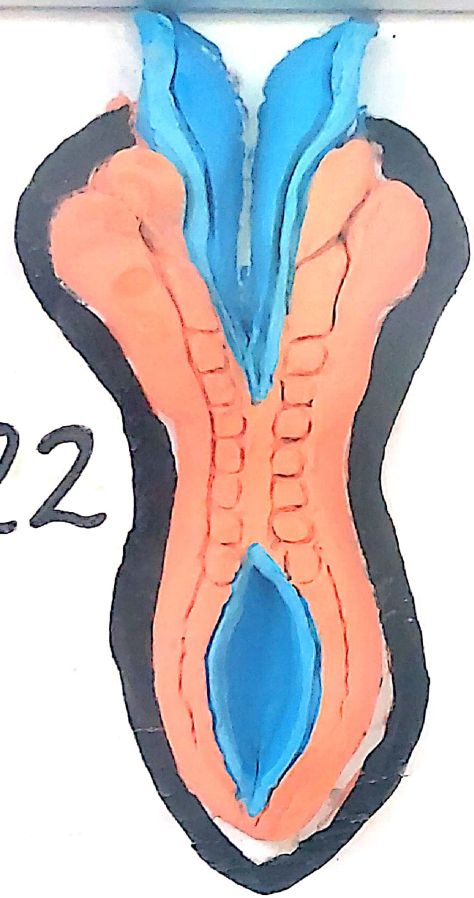
Emb. of about 32 days

Emb. of about 37 days

Emb. of about 40 days

Emb. of about 46 days

DAY 22



DORSAL  
VIEW  
EMBRYO

DAY 23



GROUP-A  
AVANA K  
DEEPIKHA  
DULA  
CRYSTAL BISO  
ADIVA A  
ATUL SARAI  
BHAVYA SAREEV  
FARAD AMAN  
FARZEEN  
DUSKANA MURDAD  
22<sup>nd</sup> Oct

# THE LARYNX.

(SIDE VIEW)

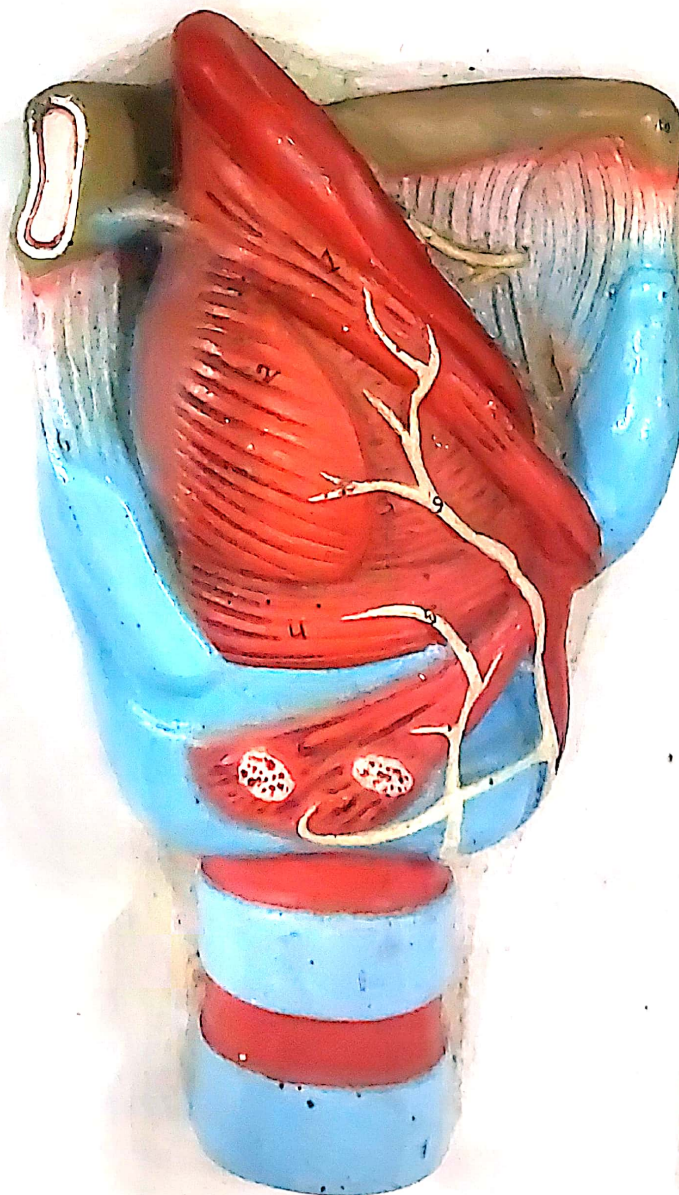
1. HYOID BONE.
2. THYROHYOID MEMBRANE.
3. MEDIAN THYROHYOID LIG.
4. LARYNGEAL PROMINENCE.
5. MEDIAN CRICOTHYROID LIG.
6. CRICOTHYROID M.
7. CRICOID CARTILAGE.
8. CRICOTHYROID JOINT.
9. POSTERIOR CRICOTHYROID M.
10. OBLIQUE LINE.
11. SUPERIOR THYROID TUBERCLE.
12. LATERAL THYROHYOID LIG.
13. TRITICEAL CARTILAGE.

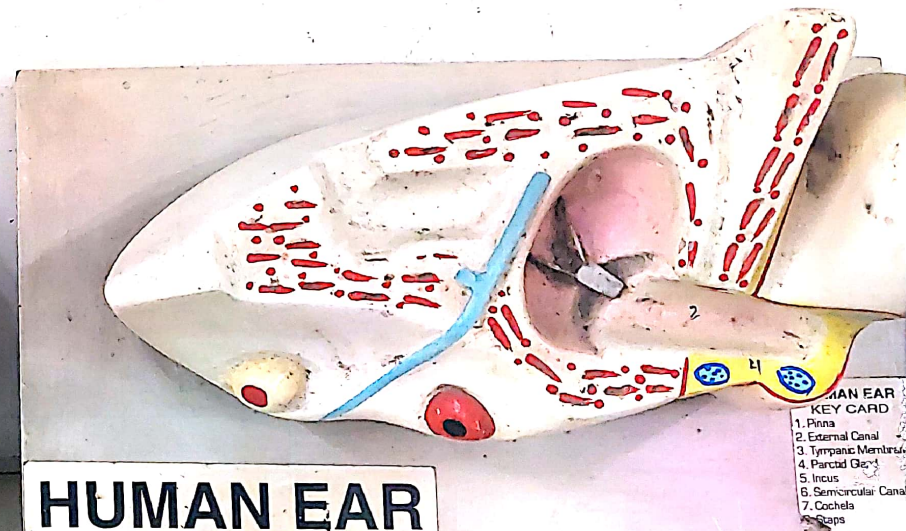
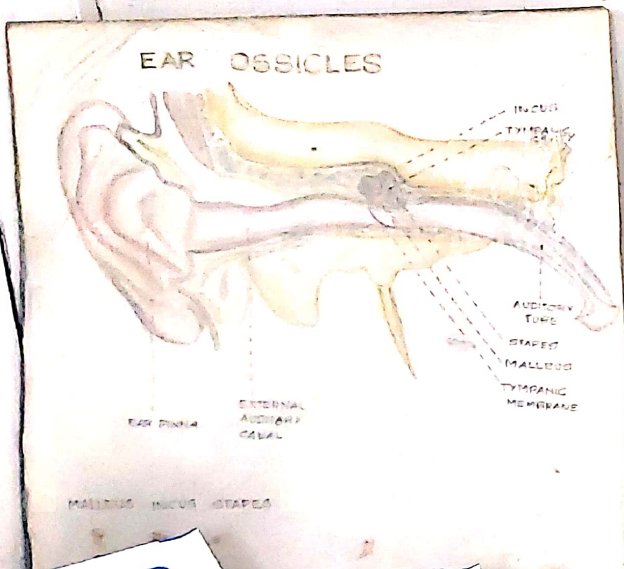


# THE LARYNX.

## (CUT-AWAY SIDE VIEW)

1. ARYEPIGLOTTIC M.
2. QUADRANGULAR MEMBRANE.
3. THYROPIGLOTTIC M.
4. THYROARYTENOID M.
5. MUSCULAR BR. OF INFERIOR LARYNGEAL N.
6. LATERAL CRICOTHYROID M.
7. RECURRENT LARYNGEAL N.
8. POSTERIOR CRICOARYTENOID M.
9. COMMUNICATING BR. BETWEEN SUPERIOR AND INFERIOR LARYNGEAL N.
10. INTERNAL AND EXTERNAL BR. OF SUPERIOR LARYNGEAL N.







# THE EAR.

1. PINNA.
2. MUSCLE.
3. BONY CANAL.
4. EAR DRUM.
5. MALLEUS.
6. INCUS.
7. STAPES.
8. SEMI-CIRCULAR CANALS.
9. UTRICLE.
10. COCHLEA.
11. AUDITORY TUBE.

