

**M.D. DEGREE EXAMINATION**  
**BRANCH XXIII – ANATOMY**  
**PAPER II – EMBRYOLOGY AND GENETICS**

*Q.P. Code: 202090*

**Time : Three Hours**

**Maximum : 100 Marks**

**I. Essay:**

**(2 x 15 = 30)**

1. Describe the formation of atria and interatrial septum, development of right atrium and left atrium, fate of sinus venosus and a note on atrial septal defects.
2. Describe the development and derivatives of the parts of eyeball, accessory structures of eyeball and their anomalies.

**II. Short notes:**

**(10 x 5 = 50)**

1. Neural crest cells.
2. Cri du chat syndrome.
3. Genetic counselling.
4. Barr body.
5. Notochord.
6. Development of thyroid gland.
7. Yolk sac.
8. Invitro fertilization.
9. Development of tongue.
10. Intermediate mesoderm.

**III. Reasoning Out:**

**(4 x 5 = 20)**

**State whether each of the following statement is TRUE or FALSE and reason out.**

1. Human placenta is of hemochorial type.
2. Superior parathyroid develops from endoderm of fourth pharyngeal pouch and inferior parathyroid develops from endoderm of third pharyngeal pouch.
3. The vertebra is an intersegmental structure made up from portions of two somites.
4. Spleen develops from the foregut in the ventral mesogastrium.

\*\*\*\*\*