**ST. JOSEPH’S COLLEGE (AUTONOMOUS), BENGALURU -27**

**B.Sc–VI SEMESTER**

**SEMESTER EXAMINATION: APRIL 2023**

**(Examination conducted in May 2023)**

**ZO6218 – Developmental Biology, Evolution and Zoogeography**

**(For current batch students only)**

**Time: 2 ½ Hours Max Marks: 70**

**This paper contains 02 printed pages and 04 parts**

**PART-A**

**Answer the following: 7 X 1 =7**

1. Meroblastic cleavage is seen in \_\_\_\_\_\_\_\_\_\_\_\_ eggs.
2. Cave paintings are a feature of \_\_\_\_\_\_\_\_\_\_\_\_\_ man.
3. Amphioxus embryo has \_\_\_ number of blastomeric layers during gastrula stage.
4. Epitheliochorial placenta is found in pigs. **TRUE/FALSE**.
5. Abundance of arthropods and molluscs was found in \_\_\_\_\_\_\_\_ era.
6. From the 9th week through birth, the conceptus is known as \_\_\_\_\_\_\_\_\_.
7. Reappearance of ancestral characters is called as \_\_\_\_\_\_\_\_\_\_\_.

**PART B**

**Answer the following**: **4 X 2 = 8**

1. Draw a neat labelled diagram of blastula of frog.
2. What is Induction? State with an example.
3. What is Hardy-Weinberg’s equilibrium?
4. State one function of the following hormones: a) Progesterone b) estrogen

**PART C**

**Answer any FIVE of the following: 5 X 5 = 25**

1. Illustrate and differentiate between Epitheliochorial & Syndesmochorial placenta with an example for each.
2. What are morphogenetic movements? Name their types and differentiate between invagination and involution.
3. Define fossils. What is dating of fossils & explain any one type.
4. Bring out any five features of Australopithecus Man.
5. Describe acrosomal reaction & cortical changes during the process of fertilization
6. Enumerate the pre zygotic isolation mechanisms with examples.
7. Compare the stages in evolution of horse with respect to dentition and digits.

**PART D**

**Answer any THREE of the following: 3 X 10 =30**

1. Explain menstrual cycle, add a note on the role of hormones.
2. Describe the anatomical and serological evidences in support of evolution?
3. Describe the formation of Primitive streak in chick and a note on involution and its result.
4. Bring about the features of Notogenesis and Neurogenesis in frog.
5. List out the comparative features of Lamarckism and Darwinism.