

**CARMEL COLLEGE OF ARTS, SCIENCE & COMMERCE FOR WOMEN,  
NUVEM-GOA**

**B.Sc. CBCS Semester VI End Examination, July 2021**

**Subject:** Zoology      **Paper Code:** ZOC 108      **Paper Name:** Developmental Biology  
**Total marks:** 30      **Duration:** 2 hrs      **Total No of Pages:** 01      **Date:** 09/07/2021

---

*Instructions:* 1. All questions are compulsory  
2. Figures to the right indicate marks  
3. Draw neat labeled diagrams wherever necessary.

**Q1. Answer any FIVE of the following. (2x5)**

- a) Write four advantages of Parthenogenesis.
- b) Define transplantation. Write a point of difference between Autoplastic and Heteroplastic transplantation.
- c) Draw a labeled diagram of a hen's egg
- d) State the fate of any two germ layers in embryonic development.
- e) Comment on the endocrine function of placenta.
- f) How does Temperature and Oxygen affect regenerative ability of animals?
- g) Comment on the regenerative ability of Coelenterates.
- h) Differentiate between GIFT and ZIFT.

**Q2. Answer any FOUR of the following. (5x4)**

- i. What are morphogenetic movements? Explain the two basic types.
- ii. What is a Fate map? Describe any two methods of fate map construction.
- iii. Briefly explain the experiment which served as the basis for the concept of the "Primary organizer".
- iv. Highlight the developmental features of a 24-hour old chick embryo.
- v. Discuss Flexion and torsion in a chick embryo.
- vi. What are teratogens? Add a note on teratogenicity of Bisphenol A and Alcohol.

-----XXXXXX-----