



Mavinay

**Avinashilingam Institute for Home Science and Higher Education for Women**  
(Deemed to be University under Category 'A' by MHRD, Estd. u/s 3 of UGC Act 1956)  
Re-accredited with 'A+' Grade by NAAC. Recognised by UGC Under Section 12B  
Coimbatore - 641 043, Tamil Nadu, India

**Bachelor's Degree Examination – June / July 2021**  
**II Semester**

**Class : I UG**  
**Major : Botany**

**Time : 3 Hours**  
**Max. Marks : 100**

**18BBOI03 DSE - II Developmental Zoology and Animal Physiology**

**Part A**

**10 x 1 = 10**

**Choose the Correct Answer**

1. Which of the following groups of cells in the male gonad, represent haploid cells? CO1 K2  
a. Primary spermatocytes b. Spermatogonial cells  
c. Germinal epithelial cells d. Secondary spermatocytes
2. How many sperms are formed from a secondary spermatocyte? CO1 K1  
a. 4 b. 8 c. 2 d. 1
3. Blastopore is CO2 K2  
a. opening of neural tube b. opening of gastrocoel  
c. future anterior end of embryo d. found in blastula.
4. Process in which 'ectoderm' covers entire 'embryo' is called as: CO2 K2  
a. morula b. blastula c. epiboly d. endoderm
5. Mode of nutrition in higher animals is: CO3 K2  
a. saprobic b. autotrophs c. holozoic d. parasitic
6. Which one of the followings is not part of the large intestine? CO3 K2  
a. Rectum b. Colon c. Cecum d. Duodenum
7. Fluid pressure generated by 'ventricular' contraction is called: CO4 K2  
a. pressure b. blood pressure  
c. hydrostatic pressure d. heart cycle
8. An adult human has systolic and diastolic pressures as: CO4 K2  
a. 120 mm Hg and 80 mm Hg b. 50 mm Hg and 80 mm Hg  
c. 80 mm Hg and 80 mm Hg d. 80 mm Hg and 120 mm Hg
9. Ovulation in the human female normally takes place during the menstrual cycle. CO5 K2  
a. At the end of the proliferative phase  
b. At the beginning of the proliferative phase  
c. Just before the end of the secretory cycle  
d. At the mid secretory phase
10. ----- facilitates reabsorption of water by the nephron. CO5 K2  
a. Medulla b. Cortex c. Pelvis d. Loop of nephron

**Part B**  
**Answer ALL questions**  
**Each answer should not exceed 400 words or two pages**

**5 x 6 = 30**

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|---|--------|
| 11.a. Sketch and explain the structure of Oocyte.<br>(or)                     | CO1 K4 |
| 11.b. Comment on - Significance of Oogenesis.                                 | CO1 K4 |
| 12.a. Comment on – Test tube baby.<br>(or)                                    | CO2 K3 |
| 12.b. How are Twins Formed?   | CO2 K3 |
| 13.a. Describe the structure of respiratory organs.<br>(or)                   | CO3 K4 |
| 13.b. Sketch the structure and functions of villi.                            | CO3 K4 |
| 14.a. What are the various types of Heart?<br>(or)                            | CO4 K3 |
| 14.b. Give an account on- Human blood.  | CO4 K3 |
| 15.a. Give an account on symptoms of menopause.<br>(or)                       | CO5 K4 |
| 15.b. Write about the hormones responsible for the development of sex organs. | CO5 K4 |

**Part C**  
**Answer ALL questions**  
**Each answer should not exceed 800 words or four pages**

**5 x 12 = 60**

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|---|--------|
| 16.a. Differentiate Spermatogenesis from Oogenesis.<br>(or)                           | CO1 K3 |
| 16.b. Comment on – multiplication growth phase and maturation phase of gametogenesis. | CO1 K3 |
| 17.a. Explain gastrulation.<br>(or)   | CO2 K3 |
| 17.b. Explain blastulation.   | CO2 K3 |
| 18.a. Explain digestion and absorption.<br>(or)                                       | CO3 K3 |
| 18.b. Describe the respiratory pigments.  | CO3 K3 |
| 19.a. Discuss on Origin of Heart.<br>(or)   | CO4 K4 |
| 19.b. Distinguish- Human heart beat and blood pressure.                               | CO4 K4 |
| 20.a. Point out the –'Physiology of Menstrual Cycle'.<br>(or)                         | CO5 K3 |
| 20.b. Write about the developmental stages of fetus.                                  | CO5 K3 |

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