

B.Sc. Semester - 6 (CBCS) Examination**March/April-2024 (OLD COURSE)****REPROD. PHYSIO, EMBRYO, EVO, ENV POLLUTION AND ECOLOGY(CORE)****Time: 2:30 Hours****Marks: 70****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate marks.

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- Que.1(A) Answer the following question. (any one out of two) (07)
- 1) Describe the structure and function of mammalian sperm.
 - 2) Describe the structure and function of mammalian ovum.
- Que.1(B) Answer the following question. (any one out of two) (04)
- 1) Describe the structure of mammary gland.
 - 2) Draw a neat and labelled diagram of the process of formation of egg in mammals.
- Que.1(C) Answer the following question. (any three out of five) (03)
- 1) The process of maturation of ovum is termed as _____
 - 2) Mature ovarian follicle with secondary oocytes is known as _____
 - 3) The enzyme secreted by sperm during fertilization is _____
 - 4) Mutual adhesion of sperms is known as _____
 - 5) The cells that provide nourishment to the spermatozoa are called _____
- Que.2(A) Answer the following question. (any one out of two) (07)
- 1) Describe the 48 hours chick embryo.
 - 2) Describe the development of brain in 33 hours chick embryo.
- Que.2(B) Answer the following question. (any one out of two) (04)
- 1) Classify placenta according to histological view.
 - 2) Describe the regeneration in salamander.
- Que.2(C) Answer the following question. (any three out of five) (03)
- 1) The type of placenta found in human is _____
 - 2) Name two hormones secreted by the placenta.
 - 3) The process of activation of egg and amphimixis are included in _____
 - 4) Honey bees are known to produce females through which process?
 - 5) How many pairs of somites are present in 24 hours chick embryo?
- Que.3(A) Answer the following question. (any one out of two) (07)
- 1) Describe the Oriental realm.
 - 2) Describe the Australian realm.
- Que.3(B) Answer the following question. (any one out of two) (04)
- 1) Describe gene pool and gene flow.
 - 2) Describe the difference between macro and micro evolution with suitable examples.
- Que.3(C) Answer the following question. (any three out of five) (03)
- 1) Zebra and Giraffe belong to which zoogeographical realm?
 - 2) Kangaroo and Emu belong to which zoogeographical realm?
 - 3) Sloth, anteaters and armadillos are usually found in which zoogeographical realm?
 - 4) Wallacea is named after _____.
 - 5) Sri Lanka is an example of which type of island?
- Que.4(A) Answer the following question. (any one out of two) (07)
- 1) Write a note on air pollution.
 - 2) Write a note on water pollution.

- Que.4(B) Answer the following question. (any one out of two) (04)
- 1) Write a short note on soil pollution.
 - 2) Write a short note on greenhouse effect.
- Que.4(C) Answer the following question. (any three out of five) (03)
- 1) The chemicals largely responsible for ozone layer depletion are called _____.
 - 2) Name any one greenhouse gas.
 - 3) Name the layers of the soil from top to bottom.
 - 4) Name any one secondary air pollutant.
 - 5) Oil spill is the major cause of which kind of pollution?
- Que.5(A) Answer the following question. (any one out of two) (07)
- 1) Describe the concept of ecological succession.
 - 2) Describe energy flow.
- Que.5(B) Answer the following question. (any one out of two) (04)
- 1) Describe the N₂ cycle.
 - 2) Describe the O₂ cycle.
- Que.5(C) Answer the following question. (any three out of five) (03)
- 1) The shapes of population growth forms are _____.
 - 2) The percentage of CO₂ in the atmosphere is _____.
 - 3) Give an example of nitrifying bacteria.
 - 4) The structural and functional system of communities and their environment is known as _____.
 - 5) Define population.
