

B.Sc. Semester - 6 (CBCS) Examination**March/April-2023 (NEW COURSE)****Embryology, Evolution, Biostatistics (Core (New))****Time: 2:30 Hours****Marks: 70****Instructions:**

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

Q.1(A) Answer the following question. (Any One) (07)

1. Explain the development of 72 hours chick embryo with labelled diagram.
2. Explain the process of diploid parthenogenesis.

Q.1(B) Answer the following questions. (Any One) (04)

1. Write a short note on Epimorphic regeneration.
2. Types of placenta on the basis of histological structure.

Q.1(C) Answer the following questions. (Any Three) (03)

1. Term used for haploid parthenogenesis is _____
2. Hen's egg is an example of telolecithal type of egg. (True /False)
3. Define Amniote organisms.
4. Give an example of post-embryonic development stages.
5. Organ that serves as the interface between _____ and maternal circulation is known as Placenta.

Q.2(A) Answer the following question. (Any One) (07)

1. Describe the bottleneck and founder effect with suitable examples.
2. Explain Palaerctic zoogeographical region

Q.2(B) Answer the following questions. (Any One) (04)

1. Write short note on Devonian period.
2. Write short note on probability sampling.

Q.2(C) Answer the following questions. (Any Three) (03)

1. Define Wallacea.
2. Calculate the standard deviation for the following sample data : 2, 4, 8, 6, 10, and 12.
3. The sum total of all _____ of a population taken together is known as gene pool.
4. Ceylonian, Indo-china, Indo-Malayan are sub regions of which realm?
5. Write an example of microevolution.

Q.3(A) Answer the following question. (Any One) (07)

1. Define pollution and explain air pollutants with their effects on environment.
2. Describe Biodegradable and Non-degradable wastes.

Q.3(B) Answer the following questions. (Any One) (04)

1. Write short note on Acid Rain.
2. Write short note on Global Warming.

- Q.3(C) Answer the following questions. (Any Three) (03)**
1. Write few contributors of soil pollution.
 2. Primary cause of water pollution is due to human activities. True/False
 3. Tides are consequence of ozone layer depletion. True/False
 4. Discarded electrical or electronic devices are type of _____ wastes.
 5. Reason behind difficulty in recycling plastics is _____.
- Q.4(A) Answer the following question. (Any One) (07)**
1. Explain the process of Classical conditioning.
 2. Describe the courtship behaviour with suitable example.
- Q.4(B) Answer the following questions. (Any One) (04)**
1. Write a short note on imprinting and habituation.
 2. Persuasion & appeasement in stickleback.
- Q.4(C) Answer the following questions. (Any Three) (03)**
1. Who is the father of ethology?
 2. What type of mating ritual is observed in balloon fly?
 3. Pheromones are _____ in specificity.
 4. Head bobbing seen in Herring gull is an example of which type of behaviour?
 5. The attachment of a young animal toward another animal or object is called Imprinting. (True/False)
- Q.5(A) Answer the following question. (Any One) (07)**
1. Define ecological succession and explain its process.
 2. Describe Age structure and natality in population ecology.
- Q.5(B) Answer the following questions. (Any One) (04)**
1. Differentiate between autogenic and allogenic succession.
 2. Write a short note on dispersion in population ecology.
- Q.5(C) Answer the following questions. (Any Three) (03)**
1. Define climax community.
 2. The area where moisture is present in minimal amounts such as dry deserts, rocks etc. is known as hydrarch. (True/False)
 3. What is Nudation?
 4. Give an example of urn shaped pyramid figure.
 5. _____ is the theoretical maximum production under ideal or non limiting condition.
