



DCU-003-2013020

Seat No. _____

Second Year B. Sc. (Sem. III) Examination

August - 2022

**Zoology : Paper - Z-03
(New Course)**

Faculty Code : 003

Subject Code : 2013020

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

- Instructions :** (1) Draw neat and labeled diagram wherever necessary.
(2) Figures to the right side indicate full marks for the question.
(3) Write any five questions out of ten.

- 1 (a) Write the answers in short : 4
(1) Write only example names of class Arachnida.
(2) Write main features of phylum Porifera.
(3) Under which Class Star fish has been classified?
(4) Pontobdella, is classified under _____ Phylum.
- (b) Write answers in short : 2
Write main features of phylum Aschelminthes.
- (c) Write answers in short : 3
Classify the Neries with reasons.
- (d) Explain. 5
Draw only Classification chart of Invertebrate with examples only.
- 2 (a) Write the answers in short : 4
(1) Give any two example of phylum Protozoa.
(2) Write any two example of phylum Mollusca.
(3) What is common name of Gorgonia?
(4) Under which Phylum Enterobius vermicularis has been classified?
- (b) Write answers in short : 2
Classify the Obelia, (Reasons are not necessary).
- (c) Write answers in short : 3
Describe salient features of class Ophiocoma.
- (d) Explain : 5
Describe saliant features of phylum Arthropoda.

- 3 (a) Write the answers in short : 4
- (1) In which segments of Leech, Ovaries are located?
 - (2) Write the name of anticoagulant, which present in saliva of Leech?
 - (3) In which insect Siphoning type of Mouth parts are present?
 - (4) Which type of mouth parts are present in House fly?
- (b) Write answers in short : 2
- Describe Jaw of Leech.
- (c) Write answers in short : 3
- Draw labeled figure of Nervous system of Leech
- (d) Explain : 5
- Describe Digestive system of Leech.
- 4 (a) Write the answers in short : 4
- (1) How many segments are present in Leech.
 - (2) What is scientific name of Leech?
 - (3) Which type of mouth parts is present in Mosquito?
 - (4) Write any two insect name which have Chewing type of mouth parts.
- (b) Write answers in short : 2
- Describe Salivary gland of Leech.
- (c) Write answers in short : 3
- Describe Mouth parts of Butter fly.
- (d) Explain : 5
- Describe Reproductive system of Leech.
- 5 (a) Write the answers in short : 4
- (1) What is Euchromatin?
 - (2) How many centromeres are present in Dicentric chromosome?
 - (3) Write main functions of Ribosome.
 - (4) How many pairs of chromosomes are present in Human?
- (b) Write answers in short : 2
- Write the function of Ribosome.
- (c) Write answers in short : 3
- Explain about Endoplasmic Reticulum.
- (d) Explain : 5
- Explain type of Chromosomes according to the position of Centromere.

- 6 (a) Write the answers in short : 4
- (1) What is Heterochromatine?
 - (2) What is Telomere?
 - (3) In Drosophila XX condition of chromosomes is produced _____ gender.
 - (4) Which gene combination found in Male Drosophila?
- (b) Write answers in short : 2
- Explain sex determination in Bonelia.
- (c) Write answers in short : 3
- Describe Human Karyotype with different groups.
- (d) Explain : 5
- Explain Cytoplasmic Inheritance of Kappa particles in Paramecium.
- 7 (a) Write the answers in short : 4
- (1) White Ant is commonly call as _____
 - (2) Which behaviour exhibited by Hornbill bird?
 - (3) By which name, Honey bee male is known?
 - (4) Which type of egg is found in Frog?
- (b) Write answers in short : 2
- Describe courtship and reproductive behaviour in Scorpion.
- (c) Write answers in short : 3
- Explain social behaviour in Termite.
- (d) Explain : 5
- Explain Types of Eggs According to Yolk.
- 8 (a) Write the answers in short : 4
- (1) How many cast are found in Honey bee?
 - (2) In Amphioxus, egg is _____ type.
 - (3) What is meaning of the term 'Telolecithal'.
 - (4) Which type of behaviour is found in Alytes?
- (b) Write answers in short : 2
- Explain courtship behavior in Spider.
- (c) Write answers in short : 3
- Explain the types of Cleavage based on plane.
- (d) Explain : 5
- Describe in short - Parental care behavior.

- 9** (a) Write the answers in short : **4**
(1) What is definition of Isolation?
(2) How Geographical Isolation occurs?
(3) Allopatric speciation means what?
(4) Wings of insect, bat and bird are example of _____organs.
- (b) Write answers in short : **2**
Define the Speciation.
- (c) Write answers in short **3**
Explain about Analogous organs.
- (d) Explain : **5**
Describe the Homologous Organs.
- 10** (a) Write the answers in short : **4**
(1) Gametic mortality means what?
(2) Who proposed Inheritance of Acquired characteristics theory of evolution?
(3) If Isolation is due to different breeding time, than the Isolation is.....
(4) Write any on example of Hybrid Sterility.
- (b) Write answers in short : **2**
Describe Geographical Isolation.
- (c) Write answers in short : **3**
Explain the Sympatric Speciation.
- (d) Explain : **5**
Describe Darwinism with example.
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