



Seat No. \_\_\_\_\_

**HB-003-1016023**

**B. Sc. (Sem. VI) Examination**

**April – 2023**

**Zoology : Z-603**

***(Reprod. Physio. Embryology, Evo., Env. Pollu.  
and Ecology)***

***(Old Course)***

**Faculty Code : 003**

**Subject Code : 1016023**

Time :  $2\frac{1}{2}$  Hours / Total Marks : 70

**Instructions :** (1) Illustrate your answer with neat and labelled diagram.  
(2) Figures to right side indicate full marks of question.

- 1 (a) Objective type questions : 4  
(1) Define : Vitelline membrane.  
(2) The actual secretion of milk is induced by hormones.....  
(3) Which enzymes are present in sperm ?  
(4) Write a name of different parts of sperm.
- (b) Answer in brief : (any one out of two) 2  
(1) Describe : Lactogenesis.  
(2) Describe : Function of sperm.
- (c) Answer in detail : (any one out of two) 3  
(1) Function of ova.  
(2) Structure of sperm
- (d) Answer in detail : (any one out of two) 5  
(1) Describe Mammary gland.  
(2) Structure of ovum.

- 2 (a) Objective type questions : 4  
 (1) Define the word parthenogenesis.  
 (2) What is regeneration ?  
 (3) Define the word morulla.  
 (4) What is placentation ?
- (b) Answer in brief : (any one out of two) 2  
 (1) Short note of Parthenogenesis.  
 (2) Describe 48 hours embryo in chick.
- (c) Answer in detail : (any one out of two) 3  
 (1) Describe : Placenta (any one type)  
 (2) Describe : 72 hours embryo in chick.
- (d) Answer in detail : (any one out of two) 5  
 (1) Describe : Regeneration.  
 (2) Describe : Gastrulation in chick
- 3 (a) Objective type questions : 4  
 (1) Define : Macro evolution.  
 (2) What is gene flow ?  
 (3) Define : Evolution.  
 (4) Define : Geological period.
- (b) Answer in brief : (any one out of two) 2  
 (1) Note : Micro evolution.  
 (2) Define : Gene flow.
- (c) Answer in detail : (any one out of two) 3  
 (1) Describe : Gene Pool.  
 (2) Describe : Geological period (any one)
- (d) Answer in detail : (any one out of two) 5  
 (1) Describe : Gene drift.  
 (2) Explain : Zoo geographical distribution (any two region)

- 4 (a) Objective type questions : 4
- (1) Define : Pollution.
  - (2) Soil pollution caused by \_\_\_\_\_
  - (3) Green house effect caused by which gases ?
  - (4) What are the disadvantages of pollution ?
- (b) Answer in brief : (any one out of two) 2
- (1) Control of air pollution.
  - (2) Types of water pollution.
- (c) Answer in detail : (any one out of two) 3
- (1) Describe : Source of air pollution.
  - (2) Describe : Marine pollution.
- (d) Answer in detail : (any one out of two) 5
- (1) Describe : Soil pollution.
  - (2) Explain : Green house effect.
- 5 (a) Objective type questions : 4
- (1) Define : Energy flow
  - (2) What is biogeochemical cycle ?
  - (3) What is succession ?
  - (4) Define : Ecology
- (b) Answer in brief : (any one of two) 2
- (1) Describe : Population size and density.
  - (2) Describe : Oxygen cycle.
- (c) Answer in detail : (any one out of two) 3
- (1) Describe : Energy flow.
  - (2) Describe : Phosphorous cycle.
- (d) Answer in detail : (any one out of two) 5
- (1) Define : Ecological succession.
  - (2) Define : Nitrogen cycle.