



RZ-003-1016023

Seat No. _____

B. Sc. (Sem. VI) Examination

March – 2019

Zoology : Z - 603

(Repro. Physio, Embryology, Env. Pollu. & Ecology)

(New Course)

Faculty Code : 003

Subject Code : 1016023

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

[Total Marks : 70

- Instructions :** (1) Full marks of question indicated on right side.
(2) Draw diagram with neat label.

- 1** (a) Give answer of following questions : **4**
- (1) The human ovum measures approximately _____ in diameter.
 - (2) Give the name of acrosomal enzyme.
 - (3) Give the location of corona radiata in human egg cell.
 - (4) Which structure is found in neck of mammalian spermatozoa ?
- (b) Write any **one** out of two : **2**
- (1) Write function of mammalian ovum.
 - (2) Write function of mammalian sperm.
- (c) Write any **one** out of two : **3**
- (1) Give structure of mammalian ovum.
 - (2) Lactation.
- (d) Write any **one** out of two : **5**
- (1) Explain in detail structure of sperm.
 - (2) Give description of structure of mammary gland.

- 2 (a) Give answer of following questions : 4
- (1) Define placenta.
 - (2) What is primitive streak ?
 - (3) Which type of placenta is found in cats and dogs ?
 - (4) How many pair of somites present in 24 hours chick embryo ?
- (b) Write any **one** out of two : 2
- (1) Draw only 24 hours chick embryo diagram with labeled.
 - (2) Describe placentation.
- (c) Write any **one** out of two : 3
- (1) Describe cleavage in chick embryo.
 - (2) Describe regeneration.
- (d) Write any **one** out of two : 5
- (1) Explain 72 hour chick embryo.
 - (2) Explain parthenogenesis.
- 3 (a) Give answer of following question : 4
- (1) _____ era is also known as age of mammal.
 - (2) Write name of zoo geographical region.
 - (3) What is gene flow ?
 - (4) India is included in which region ?
- (b) Write any **one** out of two : 2
- (1) Mesozoic era.
 - (2) Gene pool.
- (c) Write any **one** out of two : 3
- (1) Explain genetic drift.
 - (2) Describe micro evolution.
- (d) Write any **one** out of two : 5
- (1) Countries and fauna of Australian region.
 - (2) Macro evolution.

- 4 (a) Give answer of following questions : 4
- (1) Make a list of water pollutants.
 - (2) What is acid rain ?
 - (3) Give full name of CFC.
 - (4) Define pollution.
- (b) Write any **one** out of two : 2
- (1) Causes of water pollution.
 - (2) Erosion as a pollution.
- (c) Write any **one** out of two : 3
- (1) Write a note on green house effect.
 - (2) Causes of Air pollution.
- (d) Write any **one** out of two : 5
- (1) Ecological effect of Soil pollution.
 - (2) Ecological effect of Water pollution.
- 5 (a) Give answer of following question : 4
- (1) Define Ecological succession.
 - (2) Which enzyme is involved in nitrogen fixation ?
 - (3) _____ % nitrogen is present in atmosphere.
 - (4) Make a list of factor affecting population growth rate.
- (b) Write any **one** out of two : 2
- (1) Brief note on Oxygen cycle.
 - (2) Brief note on factor affecting population size.
- (c) Write any **one** out of two : 3
- (1) Explain H₂S cycle.
 - (2) Describe Energy flow.
- (d) Write any **one** out of two : 5
- (1) Describe Ecological succession.
 - (2) Describe carbon dioxide cycle.