



JC-003-001643

Seat No. _____

Third Year B. Sc. (Sem. VI) (CBCS) Examination

August – 2019

Z-603 : ZOOLOGY

*(Reproductive Physiology, Embryology, Evolution,
Environment Pollution and Ecology)*

(Old Course)

Faculty Code : 003

Subject Code : 001643

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

[Total Marks : 70

- Instructions :** (1) Illustrate your answers with neat and labeled diagram.
- (2) Figures to the right side indicate full marks for the question.

1 Answer the following questions : 20

- (1) Importance of calcium ion in fertilization.
- (2) Give the example of complete parthenogenesis.
- (3) Define epimorphosis.
- (4) Define ecosystem.
- (5) How many pair of somites present in 48 hours chick embryo ?
- (6) Which cells give nourishment to spermatozoa?
- (7) Give full form of BOD.
- (8) In which layer ozone layer is situated?
- (9) Which enzyme involves in nitrogen fixation?
- (10) Which heavy metal is source of air pollution?

- (11) India included in which region?
- (12) Which hormone is secreted by placenta?
- (13) Mutual adhesion of sperm is known as _____.
- (14) First secretion of milk in human is known as _____.
- (15) Name of physiological process in regeneration.
- (16) What is mortality?
- (17) Write name of green house gases.
- (18) Write the fauna of Ethiopian region.
- (19) Which type of cleave occurs in chick?
- (20) Which layer of secondary ovarian follicle secretes estrogen?

2 (A) Write any **three** out of six : **6**

- (1) Function of placenta.
- (2) Define area opaca and area pellucida.
- (3) Significance of primitive streak.
- (4) Cleavage pattern in chick embryo.
- (5) Significance in parthenogenesis.
- (6) Factors affecting regeneration.

(B) Answer any **three** out of six : **9**

- (1) Describe structure of mammalian sperm.
- (2) Draw a labeled diagram of 48 hours chick embryo.
- (3) Regeneration in salamander.
- (4) Hormonal control of placenta.
- (5) Nitrogen cycle.
- (6) Population density.

(C) Answer any **two** out of five : **10**

- (1) Structure of mammary gland.
- (2) 24 and 96 hours of chick embryo.
- (3) Structure of mammalian ovum.
- (4) Process of fertilization in detail.
- (5) Describe 72 hours of chick embryo.

3 (A) Answer any **three** out of six : **6**

- (1) Sulphur cycle
- (2) Causes of human evolution.
- (3) Abiotic factors of ecosystem.
- (4) Short note on food chain.
- (5) Shrilanka as continental island.
- (6) Neoantartic region.

(B) Answer any **three** out of six : **9**

- (1) Age pyramid of population.
- (2) Javaman and Neandethal.
- (3) Greenhouse effect.
- (4) Describe water cycle.
- (5) Oriental region.
- (6) Fauna of palaeartic region.

(C) Answer any **two** out of five : **10**

- (1) Evolution of man and their prospective.
- (2) Describe Air pollution.
- (3) Galapogus and Volesia Island.
- (4) Describe Soil Pollution.
- (5) Energy flow in detail.