



DR-003-2016023

Seat No. _____

B. Sc. (Sem. VI) Examination

April - 2022

Zoology

(Reproductive Physiology & Embryology) (New Course)

Faculty Code : 003

Subject Code : 2016023

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

[Total Marks : 70

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

- 1 (a) Give answers of following questions : 4
(1) Define fertilization.
(2) The human ovum measures approximately _____ in diameter.
(3) Give the function of acrosomal enzyme.
(4) First somite pair can be seen in _____ hour of chick embryo.
- (b) Write any **one** out of two : 2
(1) Write function of mammalian ovum.
(2) Draw only diagram of 24-hour chick embryo.
- (c) Write any **one** out of two : 3
(1) Give structure of mammalian sperm in brief.
(2) Explain in detail gastrulation process in chick embryo.
- (d) Write any **one** out of two : 5
(1) Explain in detail 33-hour chick embryo.
(2) Give description of structure of mammary gland.

- 2** (a) Give answers of following questions : **4**
- (1) Define placenta.
 - (2) Define regeneration.
 - (3) Which type of placenta is found in cats and dogs ?
 - (4) Give the example of parthenogenesis.
- (b) Write any **one** out of two : **2**
- (1) Give brief description on placentation.
 - (2) Explain natural parthenogenesis (any one example).
- (c) Write any **one** out of two : **3**
- (1) Describe regeneration in salamander.
 - (2) Describe artificial parthenogenesis.
- (d) Write any **one** out of two : **5**
- (1) Explain regeneration in plannaria.
 - (2) Describe types of placenta based on histological structure.
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- 3** (a) Give answers of following questions : **4**
- (1) Jim Corbett national park is famous for _____.
 - (2) Give a full form of CITES _____.
 - (3) Manas sanctuaries area is _____ ?
 - (4) Give the name of mammalian endemic species of India.
- (b) Write any **one** out of two : **2**
- (1) Describe WWF.
 - (2) Explain in situ conservation.
- (c) Write any **one** out of two : **3**
- (1) Explain Ranthambhor national park.
 - (2) Describe in detail hotspot biodiversity (with any two examples).
- (d) Write any **one** out of two : **5**
- (1) Describe any two sanctuaries.
 - (2) Explain in brief keystone species.

- 4 (a) Give answers of following questions : 4
- (1) Make a list of air pollutants.
 - (2) What is acid rain ?
 - (3) What is ecology ?
 - (4) Define pollution.
- (b) Write any **one** out of two : 2
- (1) Make a brief note on H₂S cycle.
 - (2) Define population mortality.
- (c) Write any **one** out of two : 3
- (1) Write a note on green house effect.
 - (2) Describe population growth and natality.
- (d) Write any **one** out of two : 5
- (1) Explain water pollution.
 - (2) Explain N₂ bio geochemical cycle.
- 5 (a) Give answers of following questions : 4
- (1) Define word evolution.
 - (2) Give the scientific name of modern man.
 - (3) What is the meaning of geological period ?
 - (4) Where was Cro-Magnon man first found ?
- (b) Write any **one** out of two : 2
- (1) Describe zoo geographical distribution.
 - (2) Explain micro evolution.
- (c) Write any **one** out of two : 3
- (1) Explain modern man.
 - (2) Describe macro evolution in detail.
- (d) Write any **one** out of two : 5
- (1) Explain geological period (any two era).
 - (2) Describe evolution of Neanderthal man.
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