



AAI-003-001643

Seat No. _____

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

March/April – 2016

Z - 603 : Zoology

(R.P., Embryology, Evolution, Environment) (New Course)

Faculty Code : 003

Subject Code : 001643

Time : 2:30 Hours]

[Total Marks : 70

Instructions :

- (1) Illustrate your answer with neat and labelled diagram.
- (2) Figures to the right side indicate full marks of the questions.

1 Give the answer of following M.C.Qs. : 20

- (1) Which of the following have poor regeneration power ?
(A) Hydra (B) Planaria
(C) Salamandar (D) Human
- (2) If producing parthenotes are diploid then this type of parthenogenesis is called
(A) Arrhenotoky (B) Thelyotoky
(C) Amphitoky (D) Parthenotoky
- (3) Diffuse placenta are found in
(A) Pig (B) Cat
(C) Elephant (D) Kangaroo
- (4) At the incubation of 24 hours in chick embryo _____ number of somites are seen.
(A) 7 (B) 4
(C) 1 (D) 10
- (5) Which is not true about mammary gland ?
(A) Cells of alveoli produce milk.
(B) Milk secretion is under control of prolactin.
(C) Milk ejection is under control of oxytocin.
(D) Areola is non-pigmented area.

- (6) During the course of evolution which part of the human brain has shown maximum increase in size ?
 (A) Mid Brain (B) Hind Brain
 (C) Fore Brain (D) All of these
- (7) India belongs to
 (A) Oriental Region (B) Palaearctic Region
 (C) Ethiopian Region (D) Australian Region
- (8) When eagle eats frog which eats insects thriving on green plants, The eagle is
 (A) Primary Consumer (B) A Primary Decomposer
 (C) Final Decomposer (D) The apex of Food Pyramid
- (9) Zero growth means
 (A) Natality is Zero
 (B) Natality balances mortality
 (C) Natality is less than Mortality
 (D) Natality is more than Mortality
- (10) Word "antrum" is associated with
 (A) Graffian Follicle (B) Primary Follicle
 (C) Blastula (D) Gastrula
- (11) Which of the following is a Secondary Pollutant ?
 (A) CO₂ (B) CO
 (C) O₃ (D) SO₂
- (12) Second cleavage plane in chick embryo is
 (A) Meridional (B) Latitudinal
 (C) Horizontal (D) Lateral
- (13) In Salamandar process of regeneration of limb is completed in
 (A) 24 days (B) 36 days
 (C) 72 days (D) 60 days
- (14) Energy flow in ecosystem is
 (A) Uni-directional (B) Bi-directional
 (C) Multi directional (D) None of these
- (15) Which is incomplete bio-geo chemical cycle ?
 (A) Sulphar Cycle (B) Phosphorous Cycle
 (C) Nitrogen Cycle (D) Hydro Cycle

- (16) The Galapagos name derived from
 (A) Finches (B) Darwin
 (C) Tortoise (D) Iguana
- (17) Anterior end of primitive streak is thickening, is known
 (A) Hensen's node (B) Lemark's node
 (C) Blastodisc node (D) Halchet's node
- (18) Anti fertilizer is present
 (A) on the tip of sperm
 (B) on the layer of ova
 (C) Both on the tip of sperm and on layer of ova.
 (D) all over the sperm
- (19) Cyclic parthenogenesis occurs in
 (A) Honey Bee (B) Aphid
 (C) Ticks and Mites (D) Lizard (Iacerta Saxicola)
- (20) Population density of terrestrial organism is measured in terms of individual per
 (A) meter (B) meter²
 (C) meter³ (D) kilometer

- 2** (a) Write any three out of six : **6**
- (1) Short note on artificial parthenogenesis.
 - (2) Biotic factor of ecosystem.
 - (3) Regeneration in Hydra.
 - (4) Cleavage in chick embryo.
 - (5) Future prospective of man.
 - (6) Srilanka as continent island.
- (b) Write any three out of six : **9**
- (1) Structure of Hen's egg.
 - (2) Java man and packing man
 - (3) Nitrogen cycle
 - (4) Acrosomal reaction
 - (5) Types of regeneration
 - (6) Green house gases and its effect on environment.

- (c) Write any two out of five : 10
- (1) Describe in brief types of parthenogenesis.
 - (2) 48 hours chick embryo
 - (3) Structure of mammalian ovary and its hormonal regulation.
 - (4) Water pollution
 - (5) Process of fertilization in detail.
- 3** (a) Write any three out of six : 6
- (1) Acid rain
 - (2) Neanderthal man
 - (3) Food chain - Short note
 - (4) Factor affecting process of regeneration
 - (5) Galapagos island
 - (6) Gastrula stage in chick embryo
- (b) Write any three out of six : 9
- (1) Draw neat and labelled diagram of 72 hours chick embryo.
 - (2) Structure of Mammary Island
 - (3) Describe - Mammalian Sperm
 - (4) Soil Pollution
 - (5) Water Cycle
 - (6) Fauna of Palaearctic Region
- (c) Write any two out of five : 10
- (1) Air pollution
 - (2) Limb regeneration in Salamander
 - (3) Histological types of Placenta
 - (4) Energy flow
 - (5) Oriental region.