



DB-003-001643

Seat No. _____

B. Sc. (Sem. VI) (C.B.C.S.) Examination

April / May - 2015

Zoology - 603

Faculty Code : 003

Subject Code : 001643

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

[Total Marks : 70

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

1 Select the correct answer from given choices : **20**

- (1) Regeneration power poor in _____
(A) Hydra (B) Frog
(C) Lion (D) Planeria
- (2) How many pairs of somites are present in 24 hrs chick embryo /
(A) 24 (B) 35
(C) 4 (D) 10
- (3) Which cells give nourishment to the spermatozoa.
(A) Epithelial cells (B) Flame cells
(C) Sertoli cells (D) Cardiac cells
- (4) Name the hormone secreted by placenta.
(A) Adrenaline (B) Thyroxine
(C) Relaxin (D) None
- (5) Mortality means -
(A) Rate of death of individuals in population
(B) Rate of born of individuals in population
(C) Rate of immigration
(D) Rate of migration
- (6) The process of maturation of ovum is termed as ----
(A) Spermatogenesis (B) Oogenesis
(C) Gametophyte (D) Sporophyte

- (7) Find out the causes of soil pollution from following.
- (A) Coal ash
 (B) Sewage
 (C) Plastics and herbicides
 (D) All
- (8) Population growth forms are -
- (A) J & S shaped (B) P & V shaped
 (C) T & I shaped (D) J & T shaped
- (9) Two types of biogeochemical cycles are.
- (A) gaseous and sedimentary
 (B) solid and liquid
 (C) matter and gaseous
 (D) atmospheric and gaseous
- (10) First secretion of milk in human is known as -
- (A) colostrum (B) Rostrum
 (C) monostrum (D) none
- (11) In human which type of placenta is found ?
- (A) Haemo chorial (B) Haemo endothelial
 (C) Syndasmo chorial (D) All
- (12) Find out which one of the following is not green house gas ?
- (A) Carbon dioxide (B) Nitrogen
 (C) Methane (D) Nitrous oxide
- (13) _____ enzyme secreted by sperms during fertilization.
- (A) Insulin (B) Adrenaline
 (C) Pepsine (D) Hyluronidase
- (14) The two types of Nutality is -
- (A) Maximum and ecological natality
 (B) Reproductive and physiological
 (C) Maximum and minimum
 (D) Breeding and unbreeding
- (15) _____ of CO₂ is present in atmosphere.
- (A) 0.3% (B) 0.03%
 (C) 0.4% (D) 1.2%
- (16) Zebra and Girraf are found in which zoo geographical region.
- (A) Oriental (B) Ethiopian
 (C) Australian (D) Nearctic

- (17) Out of given option which is nitrifying bacteria
(A) Azotobacteria (B) Nitrosomans
(C) Rhyzobus (D) All
- (18) Complete parthenogenesis found in -
(A) Rat (B) Bat
(C) Shark (D) None
- (19) The yolk free circular disc known as -
(A) Blastoderm (B) Blastodisc
(C) Blastula (D) Blastomere
- (20) The ecological study of population includes
(A) population characteristic
(B) population dynamics
(C) regulation of population
(D) all of above

2 Write any three out of six : **6**

- (a) (1) Define SPM
(2) What is polygamy and polyandry
(3) Define area opaca
(4) What is Population ?
(5) Name the two animals in which zonary placenta formed.
(6) What is primitive streak.

(b) Write any three out of six : **9**

- (1) Gulapagos Island
(2) Causes of Air pollution
(3) Types of placenta according to Histological type
(4) O₂ cycle
(5) Flora and fauna of Australian region
(6) Green house effect.

- (c) Write any two out of five : 10
- (1) Energy flow
 - (2) Population ecology
 - (3) 48 hrs. chick embryo
 - (4) Structure and function of sperm
 - (5) What is ecology ? Describe it.

- 3** (a) Write any three out of **six** : 6
- (1) Significance of fertilization
 - (2) Define productivity
 - (3) Area pellucida
 - (4) What is meant by population dynamics ?
 - (5) Define agglutination
 - (6) Give any two functions of placenta.

- (b) Write any three out of six : 9
- (1) Soil pollution
 - (2) N₂ cycle
 - (3) What is regeneration ? Describe with one example
 - (4) Continental Island
 - (5) Volesia
 - (6) Oriental region.

- (c) Write any two out of five : 10
- (1) 24 hrs chick embryo
 - (2) Parthenogenesis
 - (3) Structure of mammary gland
 - (4) Evolution of man and its future perspectives
 - (5) Only labelled diagram of '72' hrs chick embryo.