

ENTRANCE EXAMINATION FOR ADMISSION, MAY 2012.

Ph.D. (Zoology)

COURSE CODE : 129

Register Number :

*Signature of the Invigilator
(with date)*

COURSE CODE : 129

Time : 2 Hours

Max : 400 Marks

Instructions to Candidates :

1. Write your Register Number within the box provided on the top of this page and fill in the page 1 of the answer sheet using pen.
2. Do not write your name anywhere in this booklet or answer sheet. Violation of this entails disqualification.
3. Read each of the question carefully and shade the relevant answer (A) or (B) or (C) or (D) in the relevant box of the ANSWER SHEET using HB pencil.
4. Avoid blind guessing. A wrong answer will fetch you -1 mark and the correct answer will fetch 4 marks.
5. Do not write anything in the question paper. Use the white sheets attached at the end for rough works.
6. Do not open the question paper until the start signal is given.
7. Do not attempt to answer after stop signal is given. Any such attempt will disqualify your candidature.
8. On stop signal, keep the question paper and the answer sheet on your table and wait for the invigilator to collect them.
9. Use of Calculators, Tables, etc. are prohibited.

1. The movement of cells on the surface of the embryo
 (A) Emboly (B) Convergence (C) Involution (D) Epiboly
2. Acrosome is formed from
 (A) Mitochondria (B) Centriole (C) Golgi body (D) Nuclues
3. Protoplasm is the physical basics of life was stated by
 (A) Huxley (B) Haeckel (C) Robertson (D) Darwin
4. Restriction enzymes are to
 (A) Cut DNA (B) Synthesis DNA
 (C) Synthesis RNA (D) Synthesis ATP
5. Normal body temperature of human is
 (A) 37°C (B) 32°C (C) 40°C (D) 34°C
6. Number of chromosomes in *Drosophila* is
 (A) 8 (B) 10 (C) 22 (D) 18
7. Which one of the following is a marsupia' mammal?
 (A) Platypus (B) Kangaroo (C) Rabbit (D) Dolphin
8. One of the following is a round worm
 (A) Ascaris (B) Tape worm (C) Planaria (D) Liver fluke
9. Pseudoceolem is the peculiar character of
 (A) Protozoa (B) Porifera (C) Aschelminthes (D) Annelida
10. Lymph nodes are example for
 (A) Primary lymphoid organs (B) Secondary lymphoid organs
 (C) Central lymphoid organs (D) None of the above
11. The intermolecular forces which operate between antigen and antibody are
 (A) Electrostatic forces (B) Hydrophobic bonding
 (C) Hydrogen bonding (D) All of the above

12. One of the following is a Lung fish
 (A) Exocoetus (B) Pipe fish (C) Protopterus (D) Cyclostome
13. _____ animal is a connecting link between arthropoda and annelida
 (A) Centipede (B) Millipede (C) Peripatus (D) Crab
14. Leech is
 (A) Insectivorus (B) Larvivorus (C) Frugivorus (D) Sanguivorus
15. Improvement of Mankind by genetic engineering is studied under
 (A) Eugenics (B) Euthenics (C) Euphenics (D) Pathology
16. Juvenile hormone in insects is secreted by
 (A) Corpora allata (B) Prothoracic gland
 (C) Corpora quadrigemina (D) Salivary gland
17. Limnology is the study of
 (A) Lizards (B) Snakes
 (C) Organisms in ponds and lakes (D) Organisms in air
18. Malaria is spread by
 (A) *Anopheles* (B) *Culex* (C) *Aedes* (D) Sand fly
19. Sexual maturity of larva is called
 (A) Paedogenesis (B) Parthenogenesis
 (C) Parthenocarpy (D) Parthenofission
20. Biological energy is readily available from
 (A) ATP (B) Glucose (C) Glycogen (D) Fat
21. Number of chromosomes in human
 (A) 46 (B) 23 (C) 42 (D) 40
22. The hardest substance in the body is
 (A) Ligament protein (B) Hair keratin
 (C) Enamel teeth (D) Bone ossein

23. The vocal sacs of frog help
(A) In sound production (B) In storing air
(C) Resonators (D) None
24. Chemically enzymes are
(A) Carbohydrates (B) Proteins (C) Fats (D) Hydrocarbons
25. Most important centre for the formation of Lymph is
(A) Liver (B) Pancreas (C) Spleen (D) Kidney
26. Grave's disease is otherwise called as
(A) Cushing's syndrome (B) Dwarfism
(C) Thyrotoxicosis (D) Gigantism
27. Adrenaline is a
(A) Vasoconstrictor (B) Vasodialator
(C) Both (D) None of the above
28. Night blindness caused due to the deficiency of
(A) Vit - A (B) Vit - B (C) Vit - C (D) Vit - D
29. Diaphragm is found in
(A) Mammals (B) Crocodile (C) Birds (D) None
30. The term hermaphrodite refers to
(A) Unisexual (B) Bisexual (C) None (D) Both
31. The largest bone in human body
(A) Tibia (B) Femur (C) Phalanges (D) None
32. Female reproductive hormone is
(A) Testosterone (B) Estrogen (C) TSH (D) GH
33. Which one of the following is functioning as exocrine and endocrine gland?
(A) Salivary gland (B) Pancreas (C) Liver (D) Kidney

34. In human body the number of bones is.
 (A) 106 (B) 306 (C) 426 (D) 206
35. A haploid condition is found in
 (A) Sperm (B) Ovum (C) Both A & B (D) None
36. The site of protein synthesis in a cell is
 (A) Ribosome (B) Chloroplast (C) Chromosomes (D) Chromoplast
37. The best way of dating of fossils of recent origins by
 (A) Uranium lead method (B) Potassium zinc method
 (C) Potassium argon method (D) Radio carbon method
38. Sickle cell anemia is due to
 (A) Hormones (B) Virus (C) Genes (D) Bacteria
39. Erythroblastosis foetalis is found in children having
 (A) Both father & mother Rh Positive
 (B) Both father & mother Rh Negative
 (C) Rh Positive father & Rh negative mother
 (D) Rh negative father & Rh positive mother
40. Genetic Engineering means
 (A) Manipulations of genes (B) Manipulations of cell content
 (C) Manipulations of mitochondria (D) Manipulations of centriole
41. The male human is represented by sex chromosomes
 (A) XX (B) XO (C) XY (D) YY
42. The character which appear physically in an animal is
 (A) Genotype (B) Phenotype
 (C) Heterotype (D) Morphozygyus
43. Archenteron is present in
 (A) Blastula (B) Gastrula (C) Morula (D) Neural
44. The egg of mammal is
 (A) Microlecithal (B) Macrolecithal (C) Alecithal (D) Telolecithal

45. Who discovered the blood groups in human
 (A) Alexander Fleming (B) Karl Landsteiner
 (C) Louis Pauster (D) Edward Jenner
46. Oncogenes are responsible for
 (A) Hepatitis (B) Tuberculosis (C) Parathyphoid (D) Cancer
47. Match and choose the correct answer
- | | | | |
|---|----------------------|-----|--------------------|
| 1 | Sabin and Salk | (a) | Bacterial cells |
| 2 | Rheumatoid arthritis | (b) | Viral particles |
| 3 | HIV | (c) | Autoimmune disease |
| 4 | Typhoid | (d) | Retrovirus |
- (A) 1b, 2c, 3d, 4a (B) 1a, 2c, 3a, 4d
 (C) 1a, 2d, 3b, 4c (D) 1d, 2b, 3a, 4c
48. 1 Ig G (a) Immunodiffusion
 2 Agglutination (b) Blood grouping
 3 Precipitation (c) Hormone
 4 Radioimmunoassay (d) Cross placenta
- (A) 1a, 2b, 3c, 4d (B) 1b, 2c, 3d, 4a
 (C) 1d, 2b, 3a, 4c (D) 1b, 2a, 3c, 4d
49. Lymphopenia is
 (A) Increased number of lymphocytes
 (B) Decreased number of lymphocytes
 (C) Decreased number of macrophages
 (D) None of the above
50. Fertilizin is a
 (A) Glycoprotein (B) Phospholipid (C) Carbohydrate (D) Lactic acid
51. Paurometabolous is otherwise called as
 (A) Incomplete metamorphosis (B) Complete metamorphosis
 (C) Gradual metamorphosis (D) No metamorphosis

52. Which of the following hormone is a steroid?
(A) Prostaglandin (B) Estrogen (C) Epinephrine (D) Thyroxin
53. Which hormone is responsible for metamorphosis?
(A) Adrenaline (B) Thyroid (C) Non-adrenaline (D) Estrogen
54. CSIR stands for
(A) Centre for Sophisticated Instrumental Research
(B) Council for Scientific and Industrial Research
(C) Centre for Statistical Information Research
(D) Council for Standard Instrumental Research
55. Swine flu is caused by
(A) MIN1 (B) H1N2 (C) HIV (D) H2N1
56. BRNS is located at
(A) New Delhi (B) Bombay (C) Kolkatta (D) Chennai
57. Oncology is the study of
(A) Bone (B) Heart (C) Lungs (D) Cancer
58. Transposons is discovered by
(A) Alexander Fleming (B) DeVries
(C) Mendel (D) Barbara McClintock
59. Pencillin is discovered by
(A) William Harvey (B) Alexander Fleming
(C) Von Baer (D) Golgi
60. Disease caused by *Plasmodium* is
(A) Kala azar (B) Malaria (C) Amoebiasis (D) Leprosy
61. Three and a half chambered heart is found in
(A) Amphibian (B) Reptiles (C) Fishes (D) Birds

62. Development of unfertilized egg into young one is called as
 (A) Parthenogenesis (B) Pseudogenesis
 (C) Neotony (D) Autonomy
63. Father of Genetics is
 (A) Gregor John Mendel (B) Aristotle
 (C) Landsteiner (D) Korana c
64. AIDS day is
 (A) 1st January (B) 4th April (C) 1st December (D) 21st January
65. The only Immunoglobulin that crosses the human placenta is
 (A) IgG (B) IgA (C) IgM (D) IgD
66. Flying mammal is
 (A) Bat (B) Platypus (C) Archaeopteryx (D) Lemur
67. One of the following is a triple antigen
 (A) DPT (B) TT (C) Tab (D) OPV
68. Which one of the blood group is called as Universal recipient?
 (A) A (B) B (C) O (D) AB
69. The basic unit of classification is
 (A) Genus (B) Class (C) Family (D) Species
70. Which of the following is not an insect?
 (A) Cockroach (B) Butterfly (C) Mosquitoes (D) Spider
71. The number of WBC ranges per cubic millimeter is
 (A) 8000 (B) 10000 (C) 25000 (D) 2000
72. In a normal adult man the blood pressure is
 (A) 120/80 Hg mm (B) 100/120 Hg mm
 (C) 120/120 (D) None
73. Clover leaf shape structure is of
 (A) DNA (B) RNA (C) mRNA (D) tRNA

74. Origin of species was written by
(A) Duncon (B) Gray (C) Smith (D) Darwin
75. Principle of uses and disuses are given by
(A) Lamarck (B) Gray (C) Smith (D) Darwin
76. The right auriculo ventricular opening is guarded by
(A) Tricuspid (B) Bicuspid
(C) Eustachian (D) Haversian
77. Vermicomposting is a term associated with
(A) Leech (B) Snakes
(C) Balanoglossus (D) None
78. Rh factor was first found in
(A) Man (B) Rabbit
(C) Rhesus monkey (D) Rat
79. Islets of Langerhans produce a hormone called
(A) Insulin (B) Renin (C) HCl (D) Ptyalin
80. Summer sleep of animals is called
(A) Hibernation (B) Dormancy (C) Diapause (D) Aestivation
81. Where energy is stored as reserve food
(A) Liver (B) Pancreas (C) Spleen (D) None
82. Kupffer's cells in the liver are
(A) Fat cells
(B) Phagocytic cells
(C) Blood cells
(D) Regenerative cells
83. Wisdom teeth in man are
(A) Four (B) Two (C) Eight (D) None

84. The metal associated with haemoglobin is
(A) Copper (B) Iron (C) Zinc (D) Cobalt
85. Humoral antibodies are produced by
(A) B cells (B) T cells (C) Globulins (D) Plasma cells
86. One kidney since birth is
(A) Meristic variation
(B) Congenital kidney
(C) Both
(D) None
87. Fourth ventricle is found in
(A) Cerebrum (B) Cerebellum
(C) Diencephalon (D) Medulla oblongata
88. Which of the following uses Radar system in detecting the target?
(A) Birds (B) Bats (C) Dogs (D) Snakes
89. Cochlea is a structure found in the
(A) Internal ear of rabbit
(B) Pelvic girdle of rabbit
(C) Eyes of Dogs
(D) Snakes
90. Which is not the ductless gland?
(A) Pancreas (B) Liver (C) Pituitary (D) Thymus
91. Estrus cycle is found in
(A) Primates only (B) Anthropoids only
(C) All mammals (D) None

92. Foramen magnum is found in
(A) Skull (B) Ear
(C) Vertebral column (D) Brain
93. Voice box of birds is
(A) Larynx (B) Syrinx (C) Glottis (D) All
94. Pleural membrane is the covering of
(A) Heart (B) Lung (C) Liver (D) Bones
95. Which one of the following belongs to different group?
(A) Erythrocyte (B) Lymphocyte
(C) Monocyte (D) Neutrophil
96. Leydig cells are meant for
(A) Nutrition of sperms
(B) Production of testosterone
(C) Sperm formation
(D) None
97. Viviparity is not found in
(A) Prototheria (B) Elephant
(C) Camel (D) Man
98. The cavity of gastrula is called
(A) Blastocoel
(B) Coelom
(C) Archenteron
(D) Haemocoel
99. In protostomes blastopore forms
(A) Mouth (B) Anus (C) Both (D) None
100. The number of ribs in your body is
(A) 24 (B) 36 (C) 12 (D) 10