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) 31°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) Protoperus  (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) Vasodilator (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) Morphozygus

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) Paratyphoid    (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) lb, 2c, 3d, 4a   (B) la, 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) lb, 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. Paupometric 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) Pitutary   (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