ENTRANCE EXAMINATION FOR ADMISSION, MAY 2010.
M.Sc. (MARINE BIOLOGY)
COURSE CODE : 373

Register Number :  

Signature of the Invigilator
(with date)

COURSE CODE : 373
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 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. Which one of the following processes is not characteristic of living beings?
   (A) Diffusion  (B) Hormonal regulations
   (C) Nervous Control  (D) Respiration

2. What is the vector for malaria?
   (A) Culex male  (B) Culex female
   (C) Anopheles male  (D) Anopheles Female

3. The difference between one amino acid and another is found in
   (A) Peptide bond  (B) R Group
   (C) Carboxyl group  (D) Amino group

4. Animal cell is surrounded by
   (A) A thin cell wall
   (B) A thick cell wall
   (C) A rigid membrane
   (D) A flexible membrane of protein and fats

5. The term Karyolymph refers to
   (A) Nuclear sap or matrix  (B) Chromosomes
   (C) Endoplasmic reticulum  (D) Nuclear membrane

6. The sex linked genes are seen in
   (A) X Chromosomes  (B) Y Chromosomes
   (C) Autosomes  (D) Cytoplasmic Chromosomes

7. Anabolism involves
   (A) Breakdown reactions  (B) Building up reactions
   (C) Neither (A) nor (B)  (D) Both (A) and (B)

8. Two strands of DNA helix is held together by
   (A) Hydrogen bond  (B) Nitrogen bond
   (C) Phosphate bond  (D) Oxygen bond
9. Spindle fibres of a mitotic cell made up of
   (A) Collagen      (B) Actin       (C) Tubulin       (D) Myosin

10. RNA does not have
    (A) Thymine      (B) Uracil      (C) Guanine       (D) Cytosine

11. Metamerism in chordates is exemplified by the arrangements of
    (A) Muscles       (B) Blood vessels  
    (C) Nerves       (D) All of the above

12. ATP is
    (A) An enzyme  
    (B) An hormone
    (C) Energy rich protein
    (D) Nucleoside with 3 phosphoric acid molecules

13. Octopus belongs to the class
    (A) Molluska      (B) Pelecypoda  
    (C) Cephalopoda  
    (D) Arthropoda

14. Cell theory was first forwarded by
    (A) Schledian and Schwann  
    (B) Robert Hooke
    (C) William Harvey
    (D) None of these

15. What is vector?
    (A) Non pathogenic protozoa  
    (B) Human parasite
    (C) Natural reservoir of disease  
    (D) Disease transmitting host

16. Canal system is associated with
    (A) Porifera  
    (B) Coelenterata
    (C) Echinodermata  
    (D) Annelida

17. Which of the following minerals are necessary for the regeneration of Sponges
    (A) Ca and Na  
    (B) Ca and Mg
    (C) Ca and Fe  
    (D) Cu and Mg
18. Pearl is secreted by
   (A) Edge of mantle  (B) Inner lining of a mantle
   (C) Outer lining of a mantle  (D) Organ of Bojanus

19. Gastric filaments occur in
   (A) Sea anemone  (B) Obelia
   (C) Aurelia  (D) Hormiphora

20. Which is not a fish
   (A) Scoliodon  (B) Electric ray
   (C) Whale  (D) Sea horse

21. Schistosoma is known as
   (A) Blood fluke  (B) Lung fluke
   (C) Chinese liver fluke  (D) Dog tapeworm

22. Tail fin of a shark is
   (A) Heterocercal  (B) Homocercal
   (C) Abbreviate Heterocercal  (D) Diphyrcrcl

23. Dracunculus is transmitted to man by
   (A) Fly  (B) Mosquito
   (C) Crustacea  (D) Infected Cyclops

24. Excretory organs man are
   (A) Intestines
   (B) Kidneys
   (C) Lungs & Kidneys
   (D) Sweat glands, lungs, Kidney and intestine

25. Nereis is
   (A) Carnivorous animal  (B) Burrowing animal
   (C) Nocturnal animal  (D) All of the above

26. Islet of Langerhans are seen in
   (A) Kidney  (B) Pancreas
   (C) Ovary  (D) Ileum
27. How many eggs do you find in the egg-case of cockroach?
   (A) Sixteen      (B) Twelve      (C) Six      (D) Eight

28. Liver is able manufacture
   (A) Vitamin A    (B) Vitamin K   (C) Vitamin D  (D) Vitamin C

29. Branch of Zoology Dealing with the study of shell is
   (A) Malacology   (B) Parazooology (C) Conchology  (D) Orinthology

30. The pH value of human saliva is
   (A) 7            (B) 8            (C) 9          (D) 6.5

31. The larva of star fish is called
   (A) Gastrulopore  (B) Bipinnaria  (C) Tadpole    (D) Trochophore

32. The richest source of vitamin is
   (A) Egg          (B) Fish         (C) Green vegetables (D) Fruits

33. Largest living mammal of the world is
   (A) African Elephant  (B) Blue Whale  (C) Giraffe    (D) Sperm Whale

34. End product of digestion is
   (A) Amino acids    (B) Monosaccharides  (C) Glycerol  (D) All three

35. The central part of a long bone is called
   (A) Marrow       (B) Lumen       (C) Ostia      (D) Lacuna

36. Normal Atmospheric air contains
   (A) 2% oxygen    (B) 12% oxygen   (C) 21% oxygen   (D) 31% oxygen

37. Twelve pairs of ribs and twelve pairs of cranial nerves are found in
   (A) Fish         (B) Lizard      (C) Frog       (D) Man
38. Molecule of haemoglobin is
   (A) Dull red in colour  (B) Orange red in colour
   (C) Bright red in colour  (D) Brown in colour

39. Wound healing is enhanced by a Vitamin
   (A) A  (B) C  (C) D  (D) E

40. Volume of blood in man is
   (A) 10-12 litres  (B) 5-10 litres
   (C) Depends on physique 5 or 10  (D) 5-6 litres

41. Blood is red but no RBC are found in
   (A) Earthworm  (B) Man
   (C) Rabbit  (D) Frog

42. Anemia means
   (A) Lack of blood  (B) Lack of plasma
   (C) Lack of WBC  (D) Reduction in Oxygen level

43. Number of essential amino acids in our body is
   (A) 10  (B) 20  (C) 26  (D) 12

44. Which of following is ovoviviparous
   (A) Frog  (B) Pigeon
   (C) Duck billed platypus  (D) Man

45. The cavities of the brain are filled with
   (A) Serum  (B) Cerebro spinal fluid
   (C) Lymph  (D) Blood

46. Chromosomal number in human beings
   (A) 44  (B) 46  (C) 40  (D) 48

47. Stereoscopic vision is found in
   (A) Snake  (B) Man  (C) Frog  (D) Fish
48. Cell organelle present only in animal cell is
   (A) Chloroplast  (B) Nucleus
   (C) Centromere  (D) Mitochondria

49. Uraemia is the result of an excess of
   (A) Urea in the blood  (B) Cholestrol in the blood
   (C) Glucose in the blood  (D) Glycosamina

50. Mutation is
   (A) Small variations in nature  (B) Large variation in nature
   (C) Changes in organogenesis  (D) Change in histogenesis

51. The hormone that is present in greatest concentration during the time of ovulation is normally
   (A) Estrogen  (B) FSH
   (C) LH  (D) Progesterone

52. Yeast belongs to
   (A) Phycomycetes  (B) Basidomycetes
   (C) Ascomycetes  (D) Duteromycetes

53. Diabetes insipidus is due to malfunction of
   (A) LTH  (B) STH
   (C) ADH  (D) TSH

54. Bacteriophage is
   (A) Fungus  (B) Virus
   (C) Bacterium  (D) Disease

55. The early division of a zygote is termed as
   (A) Cellulation  (B) Cleavage
   (C) Metamorphosis  (D) Mitosis

56. Oceans contains ————% of water
   (A) 70  (B) 30  (C) 45  (D) 90
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57. Absence of pigment in skin, hair and eyes of an animal is referred to as
   (A) Albinism  (B) Ketosis
   (C) Turner’s syndrome  (D) Down’s syndrome

58. Where are RBC formed
   (A) Bone marrow  (B) Thyroid
   (C) Pituitary  (D) Carotid labyrinth

59. Which of the following would be easily fossilized?
   (A) Skin  (B) Tooth
   (C) Heart  (D) External ear

60. Enzymes are
   (A) Nucleic acids  (B) Proteins
   (C) Fatty acids  (D) Lipids

61. Antiserum is a serum containing
   (A) Leucocytes  (B) Antigens
   (C) Active antibodies  (D) All of the above

62. Heaviest atom among the four is
   (A) Uranium  (B) Lead
   (C) Mercury  (D) Potassium

63. Magic bullets are
   (A) Monoclonal antibodies  (B) Vaccines
   (C) Antigen-antibody cells  (D) All of the above

64. Chlorine is an
   (A) Oxidising agent  (B) Bleaching agent
   (C) Disinfecting agent  (D) All the above

65. Gir Forest is known for its
   (A) Tigers  (B) Lions
   (C) Birds  (D) Rhinoceros
66. Atoms are composed of
(A) Electrons only
(C) Neutrons only
(B) Protons only
(D) Electrons & nucleus

67. Gulf of Mannar Marine park is known for
(A) Fish
(B) Whale
(C) Dolphin
(D) Corals

68. Calvin cycle takes place in
(A) Chloroplast grana
(B) Chloroplast envelope
(C) Chloroplast stroma
(D) Mitochondria

69. Which of the following is a rich Source of energy but never causes atmospheric pollution
(A) Wood
(B) Coal
(C) Solar energy
(D) Nuclear energy

70. Genes are made of
(A) Histones
(B) Polynucleotides
(C) Hydrocarbons
(D) Lipoproteins

71. Which of the following factor is considered to be one of the most important factors responsible for evolution?
(A) Mutation
(B) Isolation or segregation
(C) Polyploidy
(D) Lethality

72. Nitrogen fixation is carried out by
(A) Rhizobium sp
(B) Acetobacter sp
(C) Clostridium sp
(D) All of these

73. The protein coat of virus is known as
(A) Capsomere
(B) Pellicle
(C) Capsid
(D) Matrix

74. Site of protein synthesis
(A) Cytoplasm
(B) Ribosome
(C) Mitochondria
(D) Lysosomes

75. A spiral bacterium is called
(A) Coccus
(B) Bacillus
(C) Diplococcus
(D) None of these
76. Bacteria that live in absence of air are
   (A) Obligate aerobe  (B) Facultative aerobes
   (C) Obligate anaerobe  (D) Facultative anaerobe

77. Protozoan respires through
   (A) Contractile vacuole  (B) General surface
   (C) Pseudopodia vacuole  (D) None of the these

78. RNA is
   (A) Single stranded  (B) Double stranded
   (C) Single or double stranded  (D) None of these

79. The algae differ from bryophytes in
   (A) Lacking an archegonium
   (B) Having flagellated gametes
   (C) Being filamentous
   (D) Being devoid of root, stem and leaves

80. DNA is
   (A) Single stranded  (B) Double stranded
   (C) Single or double stranded  (D) None of these

81. Mushroom is a
   (A) Facultative parasite  (B) Saprophyte
   (C) Obligatory parasite  (D) Photosynthesize the food material

82. Which is not a polysaccharide
   (A) Chitin  (B) Thyroid
   (C) Pituitary  (D) Carotid labyrinth

83. Completely heterotrophic sporophyte is found
   (A) All liveworts  (B) Riccia
   (C) All mosses  (D) Funaria
84. One Celled animal reproduce by
(A) Budding       (B) Cutting
(C) Splitting     (D) Regeneration

85. The jacket layer of antheridium, in fern is composed of
(A) 8-cells       (B) 3-cells       (C) 1-cells       (D) 4-cells

86. Carrier of genetic material is
(A) Ribosomal RNA  (B) Transfer RNA
(C) Ribosomes      (D) DNA

87. The following is not a part of Sporophyte generation in Pinus
(A) Secondary phloem  (B) Nucellus
(C) Endosperm        (D) Leaf

88. The primitive organism are
(A) Aerobic       (B) Anaerobic
(C) Heterotrophic (D) Homotrophic

89. Flattened petiole that does the function of photosynthesis is
(A) Tendril       (B) Cladode
(C) Phylloide     (D) Phylloclade

90. Green algae is characterised by
(A) Chlorophyll A  (B) Chlorophyll B
(C) Chlorophyll C  (D) Chlorophyll E

91. Bud dormancy by short day conditions can be removed by
(A) Chilling treatment       (B) Ethylene
(C) Long day treatment       (D) All of the above

92. Father of genetics
(A) Mendel       (B) Morgan
(C) Darwin       (D) Muller
93. Endemic plants are
(A) Diseased plants
(B) Native plants
(C) Plants restricted to a particular areas in their distribution
(D) None of the above

94. Vitamin B6 deficiency causes
(A) Scurvy
(B) Sterility
(C) Convulsions in infants
(D) Night blindness

95. Wood is a general term of
(A) Primary xylem
(B) Secondary xylem
(C) Secondary vascular Elements
(D) Vessels are absent

96. The pH of Blood is a
(A) Acidic
(B) Alkaline
(C) Neutral
(D) Buffer

97. Transpiration takes place through
(A) Stomata
(B) Cuticle
(C) Lenticels
(D) All of the above

98. Vitamin C is generally called as
(A) Acetic acid
(B) Carbolic acid
(C) Folic acid
(D) Ascorbic acid

99. Nitrogen is absorbed by most of the plants in the form of
(A) N₂
(B) NO
(C) NO₂
(D) NO₃

100. The oldest era is
(A) Palaeozic
(B) Proterozoic
(C) Archaeozoic
(D) Proteozoic