

ENTRANCE EXAMINATION FOR ADMISSION, MAY 2011.

M.Sc. (MARINE BIOLOGY)

COURSE CODE : 373

Register Number :

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*Signature of the Invigilator  
(with date)*

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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. Metamerism in chordates is exemplified by the arrangements of
 

(A) Muscles	(B) Blood vessels
(C) Nerves	(D) All of the above
  
2. ATP is
 

(A) An enzyme	(B) An hormone
(C) Energy rich protein	(D) Nucleoside with 3 phosphoric acid molecules
  
3. Octopus belongs to the class
 

(A) Molluska	(B) Pelecypoda
(C) Cephalopoda	(D) Arthropoda
  
4. Cell theory was first forwarded by
 

(A) Schledian and Schwann	(B) Robert Hooke
(C) William Harvey	(D) None of these
  
5. What is vector?
 

(A) Non pathogenic protozoa	(B) Human parasite
(C) Natural reservoir of disease	(D) Disease transmitting host
  
6. Canal system is associated with
 

(A) Porifera	(B) Coelenterata
(C) Echinodermata	(D) Annelida
  
7. 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
  
8. Pearl is secreted by
 

(A) Edge of mantle	(B) Inner lining of a mantle
(C) Outer lining of a mantle	(D) Organ of Bojanus
  
9. Gastric filaments occur in
 

(A) Sea anemone	(B) Obelia
(C) Aurelia	(D) Hormiphora

10. Which is not a fish?
- (A) Scoliodon (B) Electric ray  
(C) Whale (D) Sea horse
11. Schistosoma is known as
- (A) Blood fluke (B) Lung fluke  
(C) Chinese liver fluke (D) Dog tapeworm
12. Tail fin of a shark is
- (A) Heterocercal (B) Homocercal  
(C) Abbreviate Heterocercal (D) Diphyrcel
13. Dracunculus is transmitted to man by
- (A) Fly (B) Mosquito  
(C) Crustacea (D) Infected Cyclops
14. Excretory organs man are
- (A) Intestines  
(B) Kidneys  
(C) Lungs & Kidneys  
(D) Sweat glands, lungs, Kidney and intestine
15. Nereis is
- (A) Carnivorous animal (B) Burrowing animal  
(C) Nocturnal animal (D) All of the above
16. Islet of Langerhans are seen in
- (A) Kidney (B) Pancreas  
(C) Ovary (D) Ileum
17. How many eggs do you find in the egg-case of cockroach?
- (A) Sixteen (B) Twelve  
(C) Six (D) Eight
18. Liver is able to manufacture
- (A) Vitamin A (B) Vitamin K  
(C) Vitamin D (D) Vitamin C

19. Branch of Zoology Dealing with the study of shell is  
(A) Malacology (B) Parazoology  
(C) Conchology (D) Orinthology
20. The pH value of numan saliva is  
(A) 7 (B) 8  
(C) 9 (D) 6.5
21. The larva of star fish is called  
(A) Gastrulopore (B) Bipinnaria  
(C) Tadpole (D) Trochophore
22. The richest source of vitamin is  
(A) Egg (B) Fish  
(C) Green vegetables (D) None
23. Largest living mammal of the world is  
(A) African Elephant (B) Blue Whale  
(C) Giraffe (D) Sperm Waale
24. End product of digestion is  
(A) Amino acids (B) Monosaccharrides  
(C) Glycerol (D) All three
25. The central part of a long bone is called  
(A) Marrow (B) Lumen  
(C) Ostia (D) Lacuna
26. Normal Atmospheric air contains  
(A) 2% oxygen (B) 12% oxygen  
(C) 21% oxygen (D) 31% oxygen
27. Twelve pairs of ribs and twelve pairs of cranial nerves are found in  
(A) Fish (B) Lizard  
(C) Frog (D) Man

28. Molecule of haemoglobin is  
 (A) Dull red in colour (B) Orange red in colour  
 (C) Bright red in colour (D) Brown in colour
29. Wound healing is enhanced by a Vitamin  
 (A) A (B) C  
 (C) D (D) E
30. 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
31. Blood is red but no RBC are found in  
 (A) Earthworm (B) Man  
 (C) Rabbit (D) Frog
32. Anemia means  
 (A) Lack of blood (B) Lack of plasma  
 (C) Lack of WBC (D) Reduction in Oxygen level
33. 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
34. Which of following is ovoviviparous?  
 (A) Frog (B) Pigeon  
 (C) Duck billed platypus (D) Man
35. The cavities of the brain are filled with  
 (A) Serum (B) Cerebro spinal fluid  
 (C) Lymph (D) Blood
36. Chromosomal number in human beings  
 (A) 44 (B) 46  
 (C) 40 (D) 48

37. Stereoscopic vision is found in  
 (A) Snake (B) Man  
 (C) Frog (D) Fish
38. Cell organelle present only in animal cell is  
 (A) Chloroplast (B) Nucleus  
 (C) Centromere (D) Mitochondria
39. 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
40. Mutation is  
 (A) Small variations in nature (B) Large variation in nature  
 (C) Changes in organogenesis (D) Change in histogenesis
41. The hormone that is present in greatest concentration during the time of ovulation is normally  
 (A) Estrogen (B) FSH  
 (C) LH (D) Progesterone
42. Yeast belongs to  
 (A) Phycomycetes (B) Basidomycetes  
 (C) Ascomycetes (D) Duteromycetes
43. Diabetes insipidus is due to malfunction of  
 (A) LTH (B) STH  
 (C) ADH (D) TSH
44. Bacteriophage is  
 (A) Fungus (B) Virus  
 (C) Bacterium (D) Disease
45. The early division of a zygote is termed as  
 (A) Cellulation (B) Cleavage  
 (C) Metamorphosis (D) Mitosis

46. Oceans contains \_\_\_\_\_ % of water  
(A) 70 (B) 30  
(C) 45 (D) 90
47. 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
48. Where are RBC formed?  
(A) Bone marrow (B) Thyroid  
(C) Pituitary (D) Carotid labyrinth
49. Which of the following would be easily fossilized?  
(A) Skin (B) Tooth  
(C) Heart (D) External ear
50. Enzymes are  
(A) Nucleic acids (B) Proteins  
(C) Fatty acids (D) Lipids
51. Antiserum is a serum containing  
(A) Leucocytes (B) Antigens  
(C) Active antibodies (D) All of the above
52. Heaviest atom among the four is  
(A) Uranium (B) Lead  
(C) Mercury (D) Potassium
53. Magic bullets are  
(A) Monoclonal antibodies (B) Vaccines  
(C) Antigen-antibody cells (D) All of the above
54. Chlorine is an  
(A) Oxidising agent (B) Bleaching agent  
(C) Disinfecting agent (D) All the above

55. Gir Forest is known for its  
 (A) Tigers (B) Lions  
 (C) Birds (D) Rhinoceros
56. Atoms are composed of  
 (A) Electrons only (B) Protons only  
 (C) Neutrons only (D) Electrons & nucleus
57. Gulf of Mannar Marine park is known for  
 (A) Fish (B) Whale  
 (C) Dolphin (D) Corals
58. Calvin cycle takes place in  
 (A) Chloroplast grana (B) Chloroplast envelope  
 (C) Chloroplast stroma (D) Mitochondria
59. 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
60. Genes are made of  
 (A) Histones (B) Polynucleotides  
 (C) Hydrocarbons (D) Lipoproteins
61. 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
62. Nitrogen fixation is carried out by  
 (A) *Rhizobium sp* (B) *Acetobacter sp*  
 (C) *Clostridium sp* (D) All of these
63. The protein coat of virus is known as  
 (A) Capsomere (B) Pellicle  
 (C) Capsid (D) Matrix



64. Site of protein synthesis  
 (A) Cytoplasm (B) Ribosome  
 (C) Mitochondria (D) Lysosomes
65. A spiral bacterium is called  
 (A) Coccus (B) Bacillus  
 (C) Diplococcus (D) None of these
66. Bacteria that live in absence of air are  
 (A) Obligate aerobe (B) Facultative aerobes  
 (C) Obligate anaerobe (D) Facultative anaerobe
67. Protozoan respire through  
 (A) Contractile vacuole (B) General surface  
 (C) Pseudopodia vacuole (D) None of these
68. RNA is  
 (A) Single stranded (B) Double stranded  
 (C) Single or double stranded (D) None of these
69. 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
70. DNA is  
 (A) Single stranded (B) Double stranded  
 (C) Single or double stranded (D) None of these
71. Mushroom is a  
 (A) Facultative parasite (B) Saprophyte  
 (C) Obligatory parasite (D) Photosynthesize the food material
72. Which is not a polysaccharide?  
 (A) Chitin (B) Thyroid  
 (C) Pituitary (D) Carotid labyrinth

73. Completely heterotrophic sporophyte is found  
 (A) All liverworts (B) Riccia  
 (C) All mosses (D) Funaria
74. One Celled animal reproduce by  
 (A) Budding (B) Cutting  
 (C) Splitting (D) Regeneration
75. The jacket layer of antheridium, in fern is composed of  
 (A) 8-cells (B) 3-cells  
 (C) 1-cells (D) 4-cells
76. Carrier of genetic material is  
 (A) Ribosomal RNA (B) Transfer RNA  
 (C) Ribosomes (D) DNA
77. The following is not a part of Sporophyte generation in Pinus  
 (A) Secondary phloem (B) Nucellus  
 (C) Endosperm (D) Leaf
78. The primitive organism are  
 (A) Aerobic (B) Anaerobic  
 (C) Heterotrophs (D) Homotrophs
79. Flattened petiole that does the function of photosynthesis is  
 (A) Tendril (B) Cladode  
 (C) Phyllode (D) Phylloclade
80. Green algae is characterised by  
 (A) Chlorophyll A (B) Chlorophyll B  
 (C) Chlorophyll C (D) Chlorophyll E
81. Bud dormancy by short day conditions can be removed by  
 (A) Chilling treatment (B) Ethylene  
 (C) Long day treatment (D) All of the above

82. Father of genetics  
(A) Mendel (B) Morgan  
(C) Darwin (D) Muller
83. Endemic plants are  
(A) Diseased plants  
(B) Native plants  
(C) Plants restricted to a particular areas in their distribution  
(D) None of the above
84. Vitamin B6 deficiency causes  
(A) Scurvy (B) Sterility  
(C) Convulsions in infants (D) Night blindness
85. Wood is a general term of  
(A) Primary xylem (B) Secondary xylem  
(C) Secondary vascular elements (D) Vessels are absent
86. The pH of Blood is a  
(A) Acidic (B) Alkaline  
(C) Neutral (D) Buffer
87. Transpiration takes place through  
(A) Stomata (B) Cuticle  
(C) Lenticels (D) All of the above
88. Vitamin C is generally called as  
(A) Acetic acid (B) Carbolic acid  
(C) Folic acid (D) Ascorbic acid
89. Nitrogen is absorbed by most of the plants in the form of  
(A)  $N_2$  (B) NO  
(C)  $NO_2$  (D)  $NO_3$
90. The oldest era is  
(A) Palaeozoic (B) Proterozoic  
(C) Archaeozoic (D) Proteozoic

91. At temperature below freezing point an enzyme is  
(A) Killed (B) Inactivated  
(C) Slightly activated (D) Unaffected
92. Simple cell division is called  
(A) Mitosis (B) Meiosis  
(C) Binary fission (D) Mitosis and meiosis
93. The red pigment in tomatoes is  
(A) Lycopene (B) Phycoerythrin  
(C) Hemoglobin (D) Leghemoglobin
94. Example of a living fossil  
(A) Seahorse (B) Amphioxus  
(C) Cray fish (D) Latimeria (Lobe-finned fish)
95. The first compound at TCA cycle is  
(A) Citric acid (B) Oxalosuccinic acid  
(C) Cis-Aconitic acid (D) Oxaloacetic acid
96. What is generally used to observe unstained living tissue?  
(A) Polarisation microscope (B) Phase contrast microscope  
(C) Radioautogram (D) Ultracentrifuge
97. In unisexual plants, sex can be changed by application of  
(A) Ethanol (B) Auxins (Ethylene)  
(C) Cytokinins (D) ABA
98. Whale is a  
(A) Mammal (B) Reptile  
(C) Fish (D) Amphibian
99. Adenine is a kind of  
(A) Carbohydrate (B) Protein  
(C) Nitrogenous base (D) Fat
100. Organism that lives on dead organic matter is called  
(A) Saprophytes (B) Parasites  
(C) Predators (D) Symbionts