

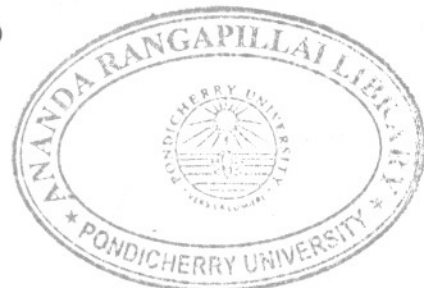
2/13

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) Diphyrcrl
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) Parazoology (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) Monosaccharrides
 (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

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

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 (B) Protons only
 (C) Neutrons 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 respire through
 (A) Contractile vacuole (B) General surface
 (C) Pseudopodia vacuole (D) None of 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 liverworts (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) Heterotrophs (D) Homotrophs
89. Flattened petiole that does the function of photosynthesis is
 (A) Tendril (B) Cladode
 (C) Phyllode (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) N_2
 (B) NO
 (C) NO_2
 (D) NO_3
100. The oldest era is
 (A) Palaeozoic
 (B) Proterozoic
 (C) Archaeozoic
 (D) Proteozoic