

Time: One Hour

Max. Marks: 50

instruction

solve any 25 questions from Q.1 to Q.30

solve any 25 questions from Q.31 to Q.60

- 1 The Antibodies are group of found in blood.
(A) Amines (B) Vitamins (C) Minerals (D) Proteins
- 2 There are major classes of Ig are distinguishable by their molecular weights, antigenic specificities.
(A) Two (B) Three (C) Four (D) None of the above
- 3 YG is a protein with molecular weight around the
(A) 14,000 (B) 15,000 (C) 16,000 (D) None of the above
- 4 YG & YM those are composed of Chains of polypeptide.
(A) 2 (B) 3 (C) 4 (D) None of the above
- 5 L&H chain of YG when separated from each other are found to be polypeptides, consisting of amino acids.
(A) 200 – 210 (B) 210 – 220 (C) 220 – 230 (D) None of the above
- 6 L chain is specificity designated by
- (A) Lambda (B) Kappa (C) Both a & b (D) None of the above
- 7 The fish antibodies migrated electrophoretically more slowly than that of ...
(A) Rat (B) Man (C) Rabbit (D) None of the above
- 8 The antibodies of elasmobranchs are similar to those of
- (A) Mammals (B) Amphibia (C) Birds (D) None of the above
- 9 Goodreach & Nichols in first of all demonstrated the transplant rejection using a technique for transplantation.
(A) Fin (B) Scale (C) Kidney (D) None of the above
- 10 The group of antibodies and antigens polymorphism were first reported by Cushing
- (A) 1951 (B) 1952 (C) 1953 (D) None of the above
- 11 The number of bacteria in slime and on the skin of newly caught ocean fish maybe as low as
- (A) 100 (B) 200 (C) 300 (D) None of the above
- 12 Live crabs are cooked at temperature upto to facilitate removing the meat from the shell.
(A) 120 °C (B) 121 °C (C) 122 °C (D) None of the above
- 13 The marine satellite information service program is denoted by
- (A) MARSIS (B) MSIS (C) MSISP (D) None of the above
- 14 The marine fish landing in India was provisionally estimated million ton during 1995.
(A) 2.26 (B) 2.27 (C) 2.28 (D) None of the above
- 15 Bacterial count is less than in the open sea away from the coast.
(A) 9/ml (B) 10/ml (C) 12/ml (D) None of the above
- 16 Algae and play a key role in the food chain in the water.
(A) Protozoa (B) Porifera (C) Amphibia (D) None of the above
- 17 Primary producers of an aquatic ecosystem are which perform chemosynthesis.
(A) Phytoplankton (B) Zooplankton (C) Protozoa (D) None of the above.
- 18 as a chemical preservative
(A) Calcium Chloride (B) Sodium Chloride (C) Magnesium Chloride (D) None of the above
- 19 Fish maybe dry salted so as contain of salt.
(A) 3-4 % (B) 4-5 % (C) 6-7% (D) None of the above
- 20 Teleost is a response to antigenic stimulation demonstrated early in

Examination October 2020

- (A) 1900 (B) 1910 (C) 1920 (D) None of the above
- 21 To demonstrate antibody-antigen reaction the following method is used
- (A) Immuno diffusion (B) Electrophoresis (C) Spectrometry (D) None of the above
- 22 An individual serum sell has
- (A) Two class of Ig (B) Three class of Ig (C) Four Class of Ig (D) None of the above
- 23 In aquatic environment the high concentration of microorganism occurs at
- (A) Surface (B) Bottom (C) Both a&b (D) None of the above
- 24 An aerobic decomposers occurs in
- (A) Pelagic zone (B) Littoral zone (C) Limnetic zone (D) Benthic zone
- 25 The soil bacteria includes
- (A) Azzotobactor (B) Nitrosomonas (C) Nitrobacter (D) All of the above
- 26 Ascomycetes is
- (A) Virus (B) Bacteria (C) Fungus (D) None of the above
- 27 is soil bacteria.
- (A) Coliforms (B) Ascomycetes (C) Azzotobactor (D) None of the above
- 28 Growth of phytoplankton depends on
- (A) Carbon Dioxide (B) water (C) Nitrogen and Phosphorous (D) All of the above
- 29 convert soluble form of iron into insoluble form of iron.
- (A) Strepfococci faecali's (B) Thiobacillus (C) Sphaerrifilus (D) E.Coli
- 30 Bio-chemical changes in the substrate are brought by
- (A) Virus (B) Bacteria (C) Algae (D) Fungi
- 31 Antibodies are
- (A) Proteins (B) Glycoproteins (C) Carbohydrates (D) None of the above
- 32 Antibodies consists of
- (A) Two light chains and two heavy chains arranged in Y shaped configuration (B) A light chain and two heavy chains arranged in a Y shaped configuration (C) Two light chains and a heavy chain arranged in a Y shaped configuration (D) All of this
- 33 Light chains and heavy chains of antibodies are joined by
- (A) Hydrogen Bond (B) Hydrophilic Bond (C) Disulphide Bond (D) None of the above
- 34 The two identical light chains of an antibody belongs to
- (A) Kappa Only (B) Lambda Only (C) Both a and b (D) None of the above
- 35 The branch of biology which involves the study of immune systems in all organisms is called
- (A) Zoology (B) Microbiology (C) Immunology (D) None of the above
- 36 of the following immunity is obtained during a lifetime.
- (A) Acquired immunity (B) Active Immunity (C) Passive Immunity (D) None of the above
- 37 There are types of antibodies.
- (A) 5 (B) 3 (C) 2 (D) None of the above
- 38 Of the following cells is involved in cell mediated immunity.
- (A) Leukaemia (B) T cells (C) Mast cells (D) None of the above
- 39 of the following protects our body against disease causing pathogens
- (A) Respiratory systems (B) Immune systems (C) Digestive systems (D) None of the above
- 40 Hepatitis is an example of ...
- (A) Sub unit vaccine (B) Killer vaccine (C) Recombinant vaccine (D) none of the above
- 41 of the following statement is true about the Igm of humans.
- (A) Igm can cross the placenta (B) Igm can protect the mucosal surface (C) Igm is primarily restricted in the circulation. (D) None of the above

Examination October 2020

42 Interferons are

- (A) Cytokine barriers (B) Physical barriers (C) Cellular barriers (D) None of the above

43 of the following cells of the immune system do not perform phagocytosis.

- (A) Macro phage (B) Neutrophil (C) Basophil (D) None of the above

44 Monocytes differentiate into Kind of phagocytic cells.

- (A) Neutrophil (B) β cell (C) Macro phage (D) None of the above

45 The chief spoilage organisms on smoked fish are

- (A) Molds (B) bacteria (C) Both a and b (D) None of the above

46 A muddy odour of the fish is attributed to

- (A) The growth streptomycetes species in the mud at the bottom of the body of water (B) The mud at the bottom of the body water (C) The growth of pseudomonas species in the mud at the bottom of the body of the water. (D) None of the above

47 In chilled shrimp is chiefly responsible for spoilage.

- (A) Achromobacter (B) pseudomonas (C) Micrococcus species (D) None of the above

48 Marinated fish should not have spoilage problems unless

- (A) The acid content is very high. (B) The acid content is very low enough. (C) The acid content is moderate. (D) None of the above

49 The predominant kind of bacteria causing spoilage in fish at chilling temperature is

- (A) Species of pseudomonas (B) Micrococcus (C) Bacillus (D) None of the above

50 The chief spoilage organisms on smoked fish are

- (A) Bacteria (B) Molds (C) Fungi (D) None of the above

51 The bacteria most often involved in the spoilage of fish are

- (A) Part of natural flora of the external slime of fishes and their intestinal contents (B) Part of natural flora of the internal slime of fishes only (C) Both a and b (D) None of the above

52 The red or pink colour of the fish is generally caused from the growth of ...

- (A) Sarcina (B) Micrococcus (C) Molds (D) All of these

53 At higher temperature , the souring of oysters maybe the result of the fermentation of sugars by

- (A) Coliform bacteria (B) Streptococci (C) Lactobacilli (D) All of the above.

54 Normally , due to the holding of the chilled fish

- (A) Pseudomonas increase in numbers (B) Achromobacters (C) Flavobacteria increase temporarily and then decrease (D) All of the above

55 Isinglass is employed in

- (A) Clearing of wines (B) Preservation of wines (C) Preparation of wines (D) None of the above

56 Smoking is used as a technique of

- (A) Fish preservation (B) Crop harvesting (C) Mushroom cultivation (D) None of the above

57 Identify the edible fresh water teleost

- (A) Sharks (B) Hilsa ilisha (C) Catla catla (D) None of the above

58 If more than single species of fish is cultured at a time then it is called

- (A) Polyculture (B) Monoculture (C) Aquaculture (D) None of the above

59 The storage of prepared food in warm areas in the absence of oxygen creates condition for

- (A) Purification (B) Putrefaction (C) both a and b (D) None of the above

60 Of the following is NOT a process where in the food becomes toxin before ingestion.

- (A) Botulism (B) Staphylococcus (C) Bacterial intoxication (D) Bacterial Infection