

4. The function of tRNA is to
- A) Transport of amino acids for protein synthesis
 - B) Carry codons to the ribosomes
 - C) Translate RNA
 - D) Transcribe the DNA code
5. If a material is described as being biodegradable, it can be
- A) softened by heating
 - B) easily moulded into different shapes
 - C) broken down by bacteria in the soil and rot away
 - D) disposed by burning
6. The four main elements in the human body are
- A) sulphur, nitrogen, oxygen and hydrogen
 - B) carbon, nitrogen, oxygen and hydrogen
 - C) carbon, sulphur, nitrogen and hydrogen
 - D) carbon, sulphur, oxygen and hydrogen
7. The function of the lungs is to take in
- A) Oxygen into the blood and remove nitrogen
 - B) Nitrogen into the blood and remove carbon dioxide
 - C) Carbon dioxide into the blood and remove oxygen
 - D) Oxygen into the blood and remove carbon dioxide
8. Down's syndrome is an example of a chromosomal abnormality called:
- A) Trisomy
 - B) Monosomy
 - C) Deletion
 - D) Inversion
9. In a variety of garden peas, the allele for tall plants (T) is dominant over the allele for short plants (t). A cross between a tall plant and a short plant resulted in 50% of the offspring being short. What were the genotypes of the parents?
- A) Tt and tt
 - B) Tt and Tt
 - C) TT and Tt
 - D) TT and tt
10. What enzyme is required for the polymerase chain reaction (PCR)
- A) Taq Polymerase
 - B) Paq polymerase
 - C) DNA polymerase
 - D) RNA Polymerase
11. What is the function of xylem vessels?
- A) Transport dissolved food from the leaves
 - B) Form root nodules for nitrogen fixing

- C) Store carbohydrates
D) Transport water and minerals from the roots and help support the plant

12. Mercury is:

- A) A liquid and metal
B) A liquid and non-metal
C) A solid and non-metal
D) Neither liquid nor metal

13. Which of the following indicates fitness?

- A) High resting pulse rate and short recovery time
B) Low resting pulse rate and short recovery time.
C) Low resting pulse rate and long recovery time
D) High resting pulse rate and long recovery time

14. The branch of Zoology that concerns the study of birds is known as:

- A) Kineosology
B) Ornithology
C) Ichthyology
D) Acarology

15. Which of the metal shown has the highest density?

- A) Iron
B) Calcium
C) Silver
D) Gold

16. What name is given to a catalyst affects living things?

- A) A precipitate
B) Platinum
C) A converter
D) An enzyme

17. Genetics is the study of :

- A) Functions of nuclear material
B) Sexual and asexual characteristics
C) Science of reproduction
D) Study of human traits

18. Choose the correct pair

- A) Sore throat : bacterial infection
B) Amoebiasis : Fungi
C) Malaria : Viral
D) Typhoid : Helminthes

19. The process of destroying foreign particles entering into the body is known a

- A) Phagocytosis
B) Haemolysis
C) Exocytosis
D) Catalysis

20. Water soluble vitamins are

- A) Vit. C & Vit. B
B) Vit. B & Vit. D
C) Vit. C & Vit. E
D) Vit.D & Vit.E

21. Which of the following never contains in food chain?

- A) Consumer B) habitats C) herbivore D) omnivore

22. Inflammation is usually accompanied with

- A) Pain B) Nausea C) Diarrhea D) Chills

23. What is the formula for the ion which has 17 protons and 18 electrons?

- A) Cl^+ B) Ar^+ C) Cl^- D) Ar^-

24. In flurosis, which of the following tissues is not affected:

- A) Bone B) Teeth C) Spine D) Brain

25. A high white blood cell count could indicate

- A) Haemophilia B) Diabetes C) Anaemia D) Leukaemia
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PART-B

26. Which of the following is responsible for controlling the cell?

- A) Chloroplast B) vacuole C) nucleus D) cell wall

27. The function of arteries is to

- A) Allow nutrients to pass from the blood to the tissues
B) Carry blood to the heart
C) Carry blood away from heart
D) Link the veins to the capillaries

28. Which of the following plant pigment traps solar energy?

- A) Chloroplast B) cell wall C) cytoplasm D) chlorophyll

29. The stain used for microscopic examination of plant cells is

- A) Cell stain B) Iodine solution C) Biuret reagent D) Benedicts solution

30. The instrument used for blood pressure measurement in humans is

- A) Reaction timer B) Pulsometer C) Sphygmomanometer D) Peak flow meter

31. The following is usually accompanied in a chemical reaction
- A) A color change occurs
B) A gas is given off
C) Heat energy is absorbed
D) A new substance is formed
32. More than 60% of body weight in humans is made up of
- A) fibre
B) fat
C) water
D) protein
33. Iron is used in the body to
- A) make blood
B) make muscle
C) make teeth and bones
D) protect the body against scurvy
34. Which of the following is the richest source of energy in our diet?
- A) Proteins
B) Fats and oils
C) Carbohydrates
D) Fibre
35. Which of the following metals is the most reactive?
- A) Zinc
B) Copper
C) Magnesium
D) Iron
36. Which of the following stain do we use for staining animal cells?
- A) iodine solution
B) cell stain
C) methylene blue
D) ribena
37. Tissue is defined as _____ to perform a function
- A) a group of cells
B) a group of organs
C) organism
D) a cell system
38. Which one of the following is not a symptom of diabetes:
- A) Excess urination
B) Excessive thirst
C) Loss of weight
D) Night blindness
39. Another name of Copper sulphate is:
- A) Green Vitriol
B) Red vitriol
C) Blue vitriol
D) Black vitriol
40. Which one of them is a correct pair:
- A) Glucose : ADP
B) Process does not require oxygen: Anaerobic
C) Adenosine diphosphate: Autotrophs
D) Organisms that make their own food: $C_6H_{12}O_6$

41. Kidneys maintain blood pressure by regulating:

- A) Salt and Fluid levels in the body
C) Toxins levels in the body

- B) Nutrients levels in the body
D) Lipids and Proteins in the body

42. Choose the incorrect pair:

- A) Insulin : Pancreas
C) Prolactin : Pituitary

- B) Epinephrine: Adrenal
D) Oxytocin : Thyroid

43. Orange is a good source of :

- A) Vit. C B) Minerals C) Iron D) Protein

44. Which one of the following is a monosaccharide:

- A) Sucrose B) Lactose C) Galactose D) Maltose

45. Excess Glucose is stored in animal tissues as

- A) Cellulose B) Starch C) Protein D) Glycogen

46. A fat is called 'saturated' as

- A) The Fatty acid carbon chains are saturated with Hydrogen
B) The fat is saturated with water
C) The fatty acid chains can have more water added
D) They saturate the body with fat when eaten

47. Zymogens are inactive

- A) enzymes B) hormones C) nucleotides D) glycosides

48. Malaria is caused by:

- A) *Plasmodium vivax* B) *Caenorhabditis elegans*
C) *Entamoeba Histolytica* D) *Clostridium tetanii*

49. Haemoglobin content is tested for a person suffering from

- A) Schizophrenia B) Parkinson's disease C) Jaundice D) Anaemia

50. Trypsin is an enzyme that catalyses the breakdown of:

- A) Proteins B) Carbohydrates C) Fats D) Nucleotid

51. If a double stranded DNA has 20% Adenine, what would be the percent of cytosine?
A) 20 B) 30 C) 40 D) 80
52. Which one of the following is not a sexually transmitted disease
A) Gonorrhoea B) Syphilis C) Hepatitis-B D) Psoriasis
53. The protein coat of a virus is called:
A) Cosmid B) Plasmid C) Capsid D) Plastid
54. Turgor pressure become equal to the wall pressure when
A) Water leaves the cell B) Water enters the cell
C) No exchange of water takes place D) Solute goes from cell into water
55. Cultivation of trees, in dwarf form is known as:
A) Bonsai B) Ikebana C) Dwarfism D) Itiolation
56. Hepatic portal system collects blood from
A) Liver B) Lungs C) Kidney D) Alimentary canal
57. Which of the following belongs to phylum Arthropoda?
A) Cockroach B) Goldfish C) Silverfish D) Cuttlefish
58. Which of the following is used by plants to make proteins?
A) Phosphates B) Nitrates C) Potassium salts D) Magnesium salts
59. What are the tubular structures present in Xylem
A) Tracheids and vessels B) Xylem parenchyma C) Sieve tubes D) Xylem fibers
60. The living part of the cell is called
A) Cell Wall B) Protoplasm C) Hyaloplasma D) Cell sap
61. Free floating organism in open sea and shore are collectively called:
A) Necton B) Plankton C) Zooplankton D) Benthos

62. Mitosis refers to

- A) Division of nucleus
 B) Division of cytoplasm
 C) Reducing chromosome number by half
 D) Division of cytoplasm and nucleus both

63. Culturing of plants in water medium is

- A) Hydroponics
 B) Sand culture
 C) Aeroponics
 D) Soil-less culture

64. Sea gulls excrete excess of NaCl from:

- A) Liver
 B) Lungs
 C) Nasal cavity
 D) Kidney

65. Tube feet is the locomotory organ in:

- A) Starfish
 B) Jelly fish
 C) Silver fish
 D) Scoliodon

66. Exoskeleton is absent in:

- A) Scoliodon
 B) Frog
 C) Rabbit
 D) Fowl

67. A reaction that combines small molecules to form large molecules is known as

- A) Anabolic reaction
 B) Catabolic reaction
 C) Anabolism
 D) Hydrolase reaction

68. Which of the following helps in clotting of blood?

- A) Vitamin B1
 B) Vitamin B2
 C) Vitamin D
 D) Vitamin K

69. Total volume of blood in a normal adult human being is

- A) 5-6 liters
 B) 3-4 liters
 C) 8-10 liters
 D) 10-12 liters

70. Vitamin B12 deficiency can lead to

- A) Night blindness
 B) Pernicious anemia
 C) Beri-Beri
 D) Loss of appetite

71. Carbohydrates are composed of

- A) amino acids
 B) nucleic acids
 C) monosaccharides
 D) glycerol and fatty acids

72. Pollen grains are rich in:

- A) Nutrients
 B) Water
 C) Salt
 D) fat

73. Tobacco mosaic disease was the first eukaryotic disease recognized to be caused by:

- A) Bacteria B) a virus C) genetic abnormalities D) radiation

74. Histology is the study of:

- A) cells and membranes B) skin C) organs and organ systems D) tissues

75. During exercise, there is an increased flow of blood to

- A) Brain B) Kidneys C) skin D) lungs