

1. Which one of the following is a free radicle?
 - A. N_2O
 - B. OCl_2
 - C. Br_2O_3
 - D. H_2O
2. A base soluble in water is called ____
 - A. Acidic
 - B. Basic
 - C. Alkali
 - D. Moisture
3. Science of the chemical characterization is stand under the heading of
 - A. industrial chemistry
 - B. experimental chemistry
 - C. analytical chemistry
 - D. physical chemistry
4. Chemical formula of soda ash;
 - A. NaO
 - B. NaCO
 - C. Na_2CO_3
 - D. NaNH_2
5. Several types of filter media are used for filtration depending on
 - A. nature of reaction
 - B. nature of reactants
 - C. nature of precipitate
 - D. nature of filter paper
6. Filtration by a glass funnel and filter paper is very
 - A. time consuming
 - B. difficult
 - C. fast
 - D. accurate

7. Basic principles of crystallization is that solute should be soluble in a suitable solution at

- A. freezing temperature
- B. room temperature
- C. high temperature
- D. low temperature

8. Premature crystallization of solution of filter paper or in funnel can be avoided

- A. filtering hot saturated solution using hot funnel
- B. filling warm solution
- C. quick filtration
- D. filtering cold solution

9. Acid present in milk

- A. Sulphuric acid
- B. Organic acid
- C. Lactic acid
- D. Oxalic acid

10. Safe and reliable method of drying crystal in through :

- A. pressing it between folds of filter paper
- B. drying it in oven
- C. evaporation of solution
- D. vacuum desiccator

11. Acid that is present in vinegar

- A. Lactic acid
- B. Oxalic acid
- C. Acetic acid
- D. Sulphuric acid

12. More abundant isotope of an element is one with

- A. Even atomic no.
- B. Odd atomic no.
- C. Even mass no.
- D. Odd mass no.

13. Naphthalene is found in which physical state;
A. Solid
B. Liquid
C. Gas
D. Plasma
14. The no. of covalent bonds present in 10gm of water are :
A. 6.074×10^{23}
B. 6.74×10^{23}
C. 6.074×10^{24}
D. 6.74×10^{24}
15. A pure liquid has _____ boiling point than impure liquid.
A. Lower
B. Higher
C. Below high
D. Above low
16. Isotopes are the sister atoms of the same element with similar chemical properties and different :
A. Atomic number
B. Atomic mass
C. Atomic volume
D. Atomic structure
17. The instrument which is used to measure the exact masses of different isotopes of an element is called :
A. I.R. Spectrophotometer
B. U.V. Spectrophotometer
C. Mass Spectrometer
D. Colorimeter
18. Mass spectrometer separates different positive isotopic ions on the basis of their
A. mass value
B. m/e value
C. e/m value
D. charge value

19. Simplest formula that gives us information about the simple ratio of atoms in a compound is called
- A. structural formula
 - B. molecular formula
 - C. empirical formula
 - D. molar ratio
20. Photosynthesis is
- A. endothermic reaction
 - B. exothermic reaction
 - C. enthalpy change
 - D. fusion reaction
21. The smoke went _____ in the chimney
- A. In
 - B. by
 - C. On
 - D. up
22. Water is made up of two _____
- A. aspects
 - B. sections
 - C. elements
 - D. none of the above
23. He has _____ his mind to join the army
- A. made-up
 - B. make-up
 - C. made with
 - D. made by
24. The movie was not very good. I _____ enjoy it much
- A. do not
 - B. did not
 - C. does not
 - D. am not

25. The earth _____ around the sun

- A. go
- B. goes
- C. going
- D. gone

26. I shall look _____ the matter

- A. into
- B. in
- C. about
- D. after

27. The number of books in the library _____ risen to twenty thousand

- A. has
- B. is
- C. are
- D. have

Select the word which is most nearly similar in meaning (Synonyms)

28. Abundance

- A. Plenty
- B. Rare
- C. Exceptional
- D. None of the above

29. Prudent

- A. Irrational
- B. Hasty
- C. Foolish
- D. Wise

30. Demolish

- A. Destroy
- B. Form
- C. Build
- D. Arrange

31. Profound

- A. Reflective
- B. Light
- C. Moderate
- D. None of the above

32. Curtail

- A. Growth
- B. Increase
- C. Cut down
- D. Smooth

33. Vigilant:

- A. Attentive
- B. Bore
- C. Careless
- D. Fixed

34. Alluring

- A. Audacity
- B. Disturbing
- C. Diligent
- D. Attractive

Select the word which is most nearly opposite in meaning (antonyms)

35. Disburse

- A. Collect
- B. Gather
- C. Payout
- D. Discard

36. Fatal
A. Lethal
B. Contractive
C. Mortal
D. Incurable

37. Generosity:
A. Stinginess
B. Kind
C. loveable
D. Bounty

38. Brutal
A. Cruel
B. Humane
C. Violent
D. Savage

39. Brisk
A. Active
B. Animated
C. Agile
D. Slow

40. Breach
A. Break
B. Rift
C. Crack
D. Agreement

41. Which of the following are the bacterial diseases?

- ☒ A. Cholera and tuberculosis
B. AIDS
C. Mycosis
D. Athlete's foot

42. The impressions or the remains of living organisms preserved in rocks:

- A. Tissues
B. Calcium
C. Statutes
☒ D. Fossils

43. In structure of bacterium, capsule's function is:

- A. Decompose
B. Stability
C. Protection
D. Locomotion

44. Cell was first discovered by;

- A. Robert Book
B. Charles Hooke
C. Robert Hooke
D. Leeuwenhoek

45. Plasma membrane present in animal cell is actually;

- A. Semi permeable
B. permeable
C. Selectively permeable
D. Non permeable

46. Which of the following is NOT a white blood cell

- A. Granulocyte
B. Lymphocyte
C. Phagocyte
D. Monocyte

47. Movement of water molecules through a selectively permeable membrane is called
- A. diffusion
 - B. osmosis
 - C. Plasmolysis
 - D. None of the above
48. What is the main difference in the red blood cells (RBCs) of humans and frogs?
- A. Both have nucleus
 - B. Frog RBC have nucleus but human RBC does not
 - ☒ C. Frog RBC does not have nucleus but human RBC does
 - D. Both B and C are correct
49. A prokaryotic cell
- A. Do not have defined nuclear membrane
 - B. Do not have membrane bounded cell organelles
 - C. Have a single chromosome
 - D. All of the above
50. Largest bone in human body:
- A. Facial bone
 - B. Cranial bone
 - C. Thigh bone
 - D. Parietal bone
51. _____ is a system of membrane bound vesicles arranged parallel to each other in stacks called cisterns.
- A. Golgi apparatus
 - B. Plastid
 - C. Lysosome
 - D. RER

7. V
t
52. Function of xylem and phloem
- A. Protection
 - B. Conduct water and food
 - C. Transport gases
 - D. To support plant
53. Chromoplasts are plant pigments which give _____
- A. green
 - B. No color
 - C. Color other than green
 - D. All of the above
- 58
54. Lysosome is called suicide bag of the cell
- A. It causes any cell to commit suicide
 - B. It's enzyme digest the cell itself
 - C. It kills surrounding cells
 - D. All of the above
55. The difference between plant cell and animal cell is that
- A. Plant cell have cell wall which animal cell do not
 - B. Plant cell do not have vacuole while animal cell do have
 - C. Plant cell have only cell membrane while animal cell have both cell wall
 - D. Plant cell have more plastids while animal cell have few plastids
56. Group of cells performing similar function is;
- A. Blood
 - B. Epithelial tissue
 - C. Tissue
 - D. Organ

57. When raisins are kept in plain water, water enters the raisins because
- A. Raisins do not have water
 - B. Water can enter any where
 - C. Raisin contain dilute solution inside
 - D. Raisin contains concentrated solution inside
58. The growth of stem or root increases due to growth of
- A. Lateral meristem
 - B. Apical meristem
 - C. Intercalary meristem
 - D. Girth meristem
59. When external is less diluted than cell sap;
- A. Hypertonic solution
 - B. Hypotonic solution
 - C. Isotonic solution
 - D. Osmosis
60. Cells of Sclerenchyma tissue is dead and hard due to deposits of
- A. pectin
 - B. lignin
 - C. cellulose
 - D. sucrose
61. Xylem consists of _____, _____, Xylem parenchyma and Xylem fibers
- A. Sieve tube, Companion cell
 - B. Tracheid, Sieve tube
 - C. Tracheid, vessel
 - D. Vessel, Companion cell

62. Phloem contains
- A. Sieve tube
 - B. Tracheid
 - C. vessel
 - D. All of these
63. Which type of cell division occurs during healing of wound?
- A. Meiosis
 - B. Mitosis
 - C. Metaphase
 - D. Anaphase
64. Inner lining of the mouth and esophagus are covered with;
- A. Ciliated columnar epithelium
 - B. Cuboidal epithelium
 - C. Stratified squamous epithelium
 - D. Squamous epithelium
65. First and longest phase of mitosis;
- A. Metaphase
 - B. Prophase
 - C. Anaphase
 - D. Telophase
66. Tendons connect
- A. Bone to bone
 - B. Muscle to bone
 - C. Muscle to muscle
 - D. None of the above
67. Optimum pH of pepsin is;
- A. 2
 - B. 3
 - C. 5
 - D. 4

68. What does Chlorophyll do?
- A. Conduct water
 - B. Absorbs light
 - C. Indicates presence of starch
 - D. Makes food using photosynthesis
69. Striated muscles
- A. Are also called skeletal muscles
 - B. Are also voluntary muscle
 - C. Have dark and light bands
 - D. All of the above
70. Dendrites are
- A. Short branched parts in a neuron
 - B. Transmitting part of a neuron
 - C. Muscle tissue
 - D. An adhesive to bind animal cells
71. How does carbon dioxide enter leaf?
- A. Through cuticle
 - B. Through stomata
 - C. Through mesophyll
 - D. Through epidermis
72. Adipose tissue
- A. Acts as insulator to the body
 - B. Found below skin & between organs
 - C. Is fat storing tissue
 - D. All of the above
73. Power house of cell
- A. Nucleus
 - B. Mitochondria
 - C. Epidermis
 - D. cell membrane

74. Which of the following is not a connective tissue
- A. bone
 - B. cartilage
 - C. blood
 - D. nerve
75. We need food for;
- A. Support
 - B. Energy
 - C. Protection
 - D. Resistance
76. The tough clear covering over iris and pupil that helps to protect the eye is;
- A. Lens
 - B. Cones
 - C. Cornea
 - D. Blind spot
77. Which of the following disease combination is caused by virus
- A. Influenza, Dengue, AIDS
 - B. Influenza, Kala azar, Hemophilia
 - C. Sleeping sickness, Kala azar, Dengue
 - D. Influenza, Kala azar, Dengue
78. Antibiotics generally
- A. Are toxic to bacteria
 - B. Directly kills the bacteria
 - C. Blocks biochemical pathways of bacteria
 - D. Suffocates the bacteria
79. Which of the diseases is not spread by casual physical contact
- A. Syphilis
 - B. AIDS
 - C. Both A and B
 - D. Neither A nor B

80. A species, family, or other larger group having no living members.

- A. Established
- B. Extinct
- C. Threatened
- D. Endangered

81. The fundamental unit which has same power in the dimensional formula of surface tension and viscosity is :

- A. Mass
- B. Length
- C. Time
- D. None

82. Planck's constant has the dimension of:

- A. Energy
- B. Momentum
- C. Frequency
- D. Angular momentum

83. The dimensional formula of Torque is :

- A. $[ML^2T^{-2}]$
- B. $[MLT^{-2}]$
- C. $[ML^{-1}T^{-2}]$
- D. $[ML^{-2}T^{-2}]$

84. If non-zero vector A and B are parallel to each other, then A.B is equal to

- A. Zero
- B. AB
- C. A+B
- D. A-B

85. The height of the tower is about _____ when ball is dropped from a tower with zero velocity, reaches ground in 4s.

- A. 80m
- B. 20m
- C. 160m
- D. 40m

86. Which of the following statements is NOT true?

- A. Body can have zero velocity and still be accelerated
- B. A body can have a constant velocity and still have a varying speed
- C. A body can have a constant speed and still have a varying velocity
- D. The direction of the velocity of a body can change when its acceleration is constant

87. The distance between node and antinode is :

- A. λ
- B. $\lambda/2$
- C. $\lambda/4$
- D. 2λ



88. Mechanical waves on the surface of liquid are:

- A. Transverse
- B. Longitudinal
- C. Torsional
- D. Both Transverse and Longitudinal

89. Torque acting on a body is given by:

- A. $r \times F$
- B. $r \cdot F$
- C. $r \times P$
- D. $r \times I$

90. Which one of the following is the smallest quantity?

- A. 0.01 g
- B. 2 mg
- C. 100 μg
- D. 5000 ng

91. A body has translator motion if it moves along a

- A. Straight line
- B. Circle
- C. Line without rotation
- D. Curved path

92. A ball is thrown vertically upward. Its velocity at the highest point is:

- A. -10ms^{-1}
- B. Zero
- C. 10ms^{-2}
- D. None of these

93. The negative of potential gradient is :

- A. Electric Field intensity
- B. Potential difference
- C. Electric potential
- D. None of these

94. Potentiometer is an accurate measuring instrument because :

- A. It does not draw any current
- B. It has low resistance
- C. It draws maximum current
- D. None of these

95. Unit of magnetic induction is :

- A. Gauss
- B. Tesla
- C. Weber
- D. Volt/meter

96. As motor speeds up the value of current decreases because :
A. Of friction loss
B. Increase of resistance of coil
C. Back emf increases
D. All of these

97. Dimensional representation of Planck's constant is same as :
A. Gravitational Constant
B. Torque
C. Momentum
D. Angular momentum

98. The deflecting couple in a galvanometer is given by :
A. NI/AB
B. $NAIB$
C. ABI/N
D. None of these

99. An inductor store energy in its :
A. Coil
B. Electric field
C. Magnetic field
D. Both B and C

100. Aluminum is a/an
A. Photoconductor
B. Insulator
C. Excellent conductor
D. Bad conductor

BUMHS MDCAT ASPIRANTS 2019.

MED - 10/11/2018							
BLUE							
1	C	26	A	51	A	76	C
2	C	27	A	52	B	77	A
3	C	28	A	53	C	78	C
4	C	29	D	54	B	79	C
5	C	30	A	55	A	80	B
6	A	31	A	56	C	81	A
7	C	32	C	57	D	82	D
8	A	33	A	58	A	83	A
9	C	34	D	59	A	84	B
10	D	35	C	60	B	85	A
11	C	36	B	61	C	86	B
12	C	37	A	62	A	87	C
13	A	38	B	63	B	88	D
14	B	39	D	64	D	89	A
15	A	40	D	65	B	90	D
16	B	41	A	66	B	91	C
17	C	42	D	67	A	92	B
18	B	43	C	68	D	93	A
19	C	44	C	69	D	94	A
20	A	45	C	70	A	95	B
21	D	46	C	71	B	96	D
22	C	47	B	72	D	97	D
23	A	48	B	73	B	98	B
24	B	49	D	74	D	99	C
25	B	50	C	75	B	100	C

BUMHS MDCAT ASPIRANTS 2019