

1. Anhydrous calcium chloride acts as....

- (A) Dehydrating agent
- (B) Drug
- (C) Oxidant
- (D) Mordant

**Answer: (A) Dehydrating agent**

2. Aqua regia is a mixture of....

- (A) HCL and  $H^2SO^4$
- (B) HCL and HNO
- (C) HCL and HBR
- (D) HCL and HF

**Answer: (B) HCL and HNO**

3. During dehydration, the substance that is usually lost by the body is

- (A) Sugar
- (B) Sodium Chloride
- (C) Calcium phosphate
- (D) Potassium chloride

**Answer: (B) Sodium Chloride**

4. Styrene is made up of the elements, hydrogen and

- (A) Sulphur
- (B) Carbon
- (C) Oxygen
- (D) Nitrogen

**Answer: (B) Carbon**

5. Sodium bicarbonate is used as....

- (A) An effective antacid
- (B) Inhalants
- (C) Calcium accumulation
- (D) Systemic laxative

**Answer: (A) An effective antacid**

6. A gas used for fumigation is.

- (A) Ethylene
- (B) Nitrogen Oxide
- (C) Sulphar dioxide
- (D) Oxygen

**Answer: (C) Sulphar dioxide**

7. Alum is commonly used as.....

- (A) Anti-infective
- (B) Astringent
- (C) Protective
- (D) All of the mentioned

**Answer: (B) Astringent**

8. Which one of these is a major cation in intracellular fluid?

- (A) Potassium
- (B) Sodium
- (C) Magnesium
- (D) Calcium

**Answer: (A) Potassium**

9. Baking soda is a common name of.....

- (A) Sodium carbonate
- (B) Sodium bicarbonate
- (C) Potassium carbonate
- (D) Sodium citrate

**Answer: (B) Sodium bicarbonate**

10. A molecule that has an equal number of positive and negative charges:

- (A) Isometric
- (B) Isoelectric
- (C) Isobaric
- (D) Isotonic

**Answer: (B) Isoelectric**

11. Saturated fatty acid with four carbon atoms is known as.

- (A) Acetic acid
- (B) Butyric acid
- (C) Valeric acid
- (D) Propionic acid

**Answer: (B) Butyric acid**

12. Citric acid is used in iron limit test.

- (A) To prevent colour due to sulphate
- (B) To prevent colour due to copper
- (C) To prevent colour due to chloride
- (D) To prevent colour due to lead

**Answer: (B) To prevent colour due to copper**

13. The barium meal is.

- (A) Barium chloride
- (B) Barium nitrate
- (C) Barium carbonate
- (D) Barium sulphate

**Answer: (D) Barium sulphate**

14. Hard gelatin capsule contains \_\_\_\_\_ % of moisture

- (A) 13-16%
- (B) 13.5-16%
- (C) 12-16%
- (D) 12-15%

**Answer: (A) 13-16%**

**Both (15&20) Questions will be Deleted**

15. Nanocapsules have size less than

- (A) 1-20um
- (B) 1-50um
- (C) 20-50um
- (D) 1-30um

**Answer: (A) 1-20um**

16. Official anhydrous water miscible ointment bases i.e emulsifying ointment contains

- (A) cationic emulsifier
- (B) nonionic emulsifier
- (C) anionic emulsifier
- (D) none

**Answer: (C) anionic emulsifier**

17. What is bloom strength of hard gelatin shell.

- (A) 150 g
- (B) 220-280 g
- (C) 170 g
- (D) 190 g

**Answer: (B) 220-280 g**

18. The largest size of capsule is

- (A) 5
- (B) 8
- (C) 0
- (D) 3

**Answer: (D) 0**

19. Obaka automatic capsule filler capable of filling up to \_\_\_\_\_ capsule/hour

- (A) 1000
- (B) 200
- (C) 165000
- (D) 200-1000

**Answer: (C) 165000**

**Both (15&20) Questions will be Deleted**

20. Nanocapsules have size less than

- (A) 1-20µm
- (B) 1-50µm
- (C) 20-50µm
- (D) 1-30µm

**Answer: (A) 1-20µm**

21. the first digit in the propellant number represent

- (A) no, of fluorine atom
- (B) no. of carbon atom
- (C) no, of hydrogen atom
- (D) none

**Answer: (B) no. of carbon atom**

22. The Exveka KEA is

- (A) dedusting & polishing machine of tablet
- (B) dedusting of tablet
- (C) polishing machine of capsule
- (D) dedusting and polishing machine of capsule

**Answer: (D) dedusting and polishing machine of capsule**

23. \_\_\_\_\_ element is regularly given to modify the solubility of gelatin capsule

- (A) additive
- (B) formaline
- (C) water
- (D) formaline and water

**Answer: (B) formaline**

24. Isoelectric point of type A gelatin is \_\_\_\_\_

- (A) 4.8-5
- (B) 5-5.8
- (C) 7-9
- (D) 4-6

**Answer: (C) 7-9**

25. Relative humidity of softgel is

- (A) 0.35
- (B) 0.2
- (C) 0.15
- (D) 20-25%

**Answer: (D) 20-25%**

26. Tag open cap apparatus for evaluation of

- (A) flame projection
- (B) identification of propellant
- (C) flash point
- (D) aerosole value discharge rate

**Answer: (D) aerosole value discharge rate**

27. \_\_\_\_\_ is the bactericidal recommended for ophthalmic used

- (A) parabens
- (B) phenyl mercuric citrate
- (C) chlorocresol
- (D) benzalconium chloride

**Answer: (D) benzalconium chloride**

28. The output of a typical rotary machine ranges from --to—suppositories an hour

- (A) 3500-6000
- (B) 6000-6500
- (C) 3000-6000
- (D) 6500-7500

**Answer: (A) 3500-6000**

29. The displacement factor of boric acid is \_\_\_\_\_to the cocoa butter

- (A) 0.81
- (B) 0.61
- (C) 0.83
- (D) 0.67

**Answer: (D) 0.67**

30. Which of the following is NOT a part of the female reproductive system?

- (A) Ovaries
- (B) Uterus
- (C) Fallopian tubes
- (D) Epididymis

**Answer: (D) Epididymis**

31. The part of the brain responsible for higher cognitive functions, such as thinking and memory, is the:

- (A) Cerebrum
- (B) Cerebellum
- (C) Medulla oblongata
- (D) Hypothalamus

**Answer: (A) Cerebrum**

32. Which of the following is the main function of the lymphatic system?

- (A) Defense against pathogens
- (B) Production of hormones
- (C) Regulation of body temperature
- (D) Digestion of food

**Answer: (A) Defense against pathogens**

33. The hormone responsible for the development and maintenance of male secondary sexual characteristics is:

- (A) Testosterone
- (B) Estrogen
- (C) Progesterone
- (D) Follicle-stimulating hormone (FSH)

**Answer: (A) Testosterone**

34. Which of the following is NOT a part of the digestive system?

- (A) Esophagus
- (B) Gallbladder
- (C) Kidneys
- (D) Stomach

**Answer: (C) Kidneys**

35. The process by which food is moved through the digestive system by muscle contractions is called:

- (A) Peristalsis
- (B) Osmosis
- (C) Diffusion
- (D) Active transport

**Answer: (A) Peristalsis**

36. Which of the following is NOT a function of the endocrine system?

- (A) Regulation of growth and development
- (B) Production of hormones
- (C) Transmission of nerve impulses
- (D) Regulation of metabolism

**Answer: (C) Transmission of nerve impulses**

37.  $\alpha$ -Amino acid on heating form

- (A)  $\gamma$ -lactam
- (B) diketopiperazine
- (C)  $\delta$ -lactam
- (D) Syndrome

**Answer: (B) diketopiperazine**

38. Sydnone is a product of amino acid. These are

- (A) cyclic diamide, formed on heating the amino acid
- (B) formed by dehydration of N-nitroso derivative of N-aryl amino acid
- (C)  $\alpha$ -acidamidoketone, formed by heating amino acid with acetic anhydride in pyridine solution
- (D) the product of amino acid with ninhydrin

**Answer: (A) cyclic diamide, formed on heating the amino acid**

39. Ninhydrin is

- (A) Indane – 1, 2, 4 trione
- (B) Indane – 1, 3, 4 – trione
- (C) Indole – 1, 2, 3 – trione
- (D) Indane 1, 2, 3 trione

**Answer: (D) Indane 1, 2, 3 trione**

40. Chemically Sanger's reagent is

- (A) 1-fluoro 2, 6- dinitro benzene
- (B) 1-fluoro 2, 4 – dinitro benzene
- (C) 2-fluoro 1, 4- dinitro benzene
- (D) 1-fluoro 3, 5- dinitro benzene

**Answer: (A) 1-fluoro 2, 6- dinitro benzene**

41. The 1-dimethyl amino naphthalene- 5- sulphonyl chloride is known as

- (A) Dansyl chloride
- (B) Edman reagent
- (C) Schack reagent
- (D) None

**Answer (A) Dansyl chloride**

42. The protein on reaction with alkaline copper sulfate solution develops reddish violet coloration. It is an indication of

- (A) presence of -NH-CO-NH-group
- (B) presence of-CONH-CH-CO-NH-group – R
- (C) -CONH-CO-NH-group
- (D) —NH—CH CONH

**Answer: (B) presence of-CONH-CH-CO-NH-group – R**

43. Type of polycythemia that Caused by excessive proliferation of bone marrow stem cells

- (A) Relative polycythemia
- (B) Primary polycythemia
- (C) Secondary polycythemia
- (D) Tertiary polycythemia

**Answer: (B) Primary polycythemia**

44. Increasing fluid volume is a rationale treatment for

- (A) Relative polycythemia
- (B) Primary polycythemia
- (C) Secondary polycythemia
- (D) Tertiary polycythemia

**Answer: (A) Relative polycythemia**

45. In atherosclerosis, the most affected artery is

- (A) Pulmonary artery
- (B) Coronary artery
- (C) Hepatic artery
- (D) Renal artery

**Answer: (B) Coronary artery**

46. Risk factors for development of atherosclerosis is

- (A) increase serum level of LDL
- (B) decrease serum level of LDL
- (C) increase serum level of HDL
- (D) None

**Answer: (A) increase serum level of LDL**

47. Symptoms of Plague

- (A) The eyelashes produce abrasion of the cornea
- (B) This results in corneal ulcer
- (C) Ultimately it leads to blindness
- (D) inflammation of lymphatic glands

**Answer: (D) inflammation of lymphatic glands**



48. Advocacy in health policy involves:
- (A) Passive observation of policy changes
  - (B) Actively supporting and promoting policies
  - (C) Criticizing policies without offering solutions
  - (D) Ignoring policy implications

**Answer: (B) Actively supporting and promoting policies**

49. Example of schedule G drug is

- (A) Tetracycline
- (B) PAS
- (C) Ibuprofen
- (D) Glibenclamide

**Answer: (D) Glibenclamide**

50. Licence for the whole sale of schedule C and C1 drugs is given in form no:

- (A) 20
- (B) 20-A
- (C) 21-B
- (D) 21-BB

**Answer: (C) 21-B**

51. The price fixed by the Government for a new drug is

- (A) Ceiling price
- (B) Local tax
- (C) Whole sale price
- (D) Retail price

**Answer: (D) Retail price**

52. How are drugs excreted from the body in drug metabolism?

- (A) Through urine
- (B) Through sweat
- (C) Through breath
- (D) Through tears

**Answer: (A) Through urine**

53. How do drugs undergo phase II metabolism?

- (A) Oxidation reactions
- (B) Reduction reactions
- (C) Conjugation reactions
- (D) Hydrolysis reactions

**Answer: (C) Conjugation reactions**

54. How does drug metabolism in the liver affect drug half-life?

- (A) Increases half-life
- (B) Decreases half-life
- (C) Has no impact on half-life
- (D) Stabilizes half-life

**Answer: (B) Decreases half-life**

55. How do enzymes influence reaction rates?

- (A) By increasing activation energy
- (B) By lowering activation energy
- (C) By changing the equilibrium constant
- (D) By stabilizing reactants

**Answer: (B) By lowering activation energy**

56. How is a Western Blot different from a Southern Blot?

- (A) Detection of specific proteins
- (B) Detection of specific DNA sequences
- (C) Quantification of nucleic acids
- (D) Separation of proteins based on size

**Answer: (A) Detection of specific proteins**

57. How is drug metabolism primarily carried out in the body?

- (A) Liver enzymes
- (B) Kidney filtration
- (C) Lung absorption
- (D) Stomach secretion

**Answer: (A) Liver enzymes**

58. How does hemoglobin's structure contribute to its oxygen-binding capacity?

- (A) Hemoglobin structure has no impact on oxygen binding
- (B) Hemoglobin undergoes conformational changes upon oxygen binding
- (C) Hemoglobin inhibits oxygen binding
- (D) Hemoglobin enhances carbon dioxide binding

**Answer: (B) Hemoglobin undergoes conformational changes upon oxygen binding**

59. How does NMR spectroscopy contribute to structural biology?

- (A) Visualization of protein structures
- (B) Determination of molecular weights
- (C) Monitoring enzyme kinetics
- (D) Analysis of nucleic acid structures

**Answer: (A) Visualization of protein structures**

60. How does renal impairment affect drug elimination in clinical pharmacokinetics?

- (A) Accelerates drug excretion
- (B) Slows down drug excretion
- (C) Has no impact on drug elimination
- (D) Increases drug absorption

**Answer: (B) Slows down drug excretion**

61. A chemical that is toxic to the brain but which is detoxified in the liver would be expected to be ---

- (A) more toxic orally than intramuscularly
- (B) more toxic rectally than intravenously
- (C) more toxic via inhalation than orally
- (D) more toxic on the skin than intravenously

**Answer: (C) more toxic via inhalation than orally**

62. All of the following are reasons for selective toxicity except-----

- (A) transport differences between cell
- (B) biochemical differences between cell
- (C) cytology of male neurons versus female neurons
- (D) cytology of plant cells versus animal cells

**Answer: (C) cytology of male neurons versus female neurons**

63. Carcinogenicity is a specialized toxicity related to the development of?

- (A) Cancer
- (B) Cardiovascular diseases
- (C) Neurological disorders
- (D) Respiratory diseases

**Answer: (A) Cancer**

64. Dose-response assessment aims to establish the relationship between?

- (A) Exposure and dose
- (B) Toxicity and exposure
- (C) Toxicity and dose
- (D) Exposure and risk

**Answer: (C) Toxicity and dose**

65. Environmental monitoring involves the continuous measurement of:

- (A) Toxicant levels
- (B) Biotic indices
- (C) Human activities
- (D) Soil composition

**Answer: (A) Toxicant levels**

66. Exposure assessment in risk assessment involves the estimation of?

- (A) The amount of toxicant in the environment
- (B) The number of exposed individuals
- (C) The toxicity of chemicals
- (D) The duration of exposure

**Answer: (A) The amount of toxicant in the environment**

67. In the context of regulatory toxicology, what does "EPA" stand for?

- (A) Environmental Protection Authority
- (B) Environmental Policy Agency
- (C) Environmental Protection Agency
- (D) Ethical Practices Association

**Answer: (C) Environmental Protection Agency**

68. In the context of toxicological emergencies, what does the acronym "MSDS" stand for?

- (A) Medical Safety Data Sheet
- (B) Material Safety Data Sheet
- (C) Managing Safety During Spills
- (D) Mastering Safety Directives

**Answer: (B) Material Safety Data Sheet**

69. In the United States, which agency is responsible for overseeing workplace safety and health regulations?

- (A) OSHA
- (B) CDC
- (C) EPA
- (D) FDA

**Answer: (A) OSHA**

70. Chemicals known to produce dispositional tolerances are ----

- (A) benzene and xylene
- (B) trichloroethylene and methylene chloride
- (C) paraquat and diaquat
- (D) carbon tetrachloride and cadmium

**Answer: (D) carbon tetrachloride and cadmium**

71. Hazard identification in risk assessment involves the identification of?

- (A) Risk factors
- (B) Potential dangers
- (C) Chemicals
- (D) Safe practices

**Answer: (B) Potential dangers**

72. How does environmental toxicology assess the impact of toxicants on ecosystems?

- (A) By studying individual species
- (B) By analyzing air quality
- (C) By monitoring biodiversity
- (D) By measuring water temperature

**Answer: (C) By monitoring biodiversity**

73. In the context of toxicology, what is the term for the amount of a substance that enters the bloodstream?

- (A) Absorption
- (B) Distribution
- (C) Metabolism
- (D) Bioavailability

**Answer: (A) Absorption**

74. In toxicology, electrophoresis is used to separate?

- (A) Gases
- (B) Particles
- (C) Molecules
- (D) Organisms

**Answer: (C) Molecules**

75. Site selection of a drug store is a:

- (A) Important decision
- (B) Insignificant decision
- (C) Irrelevant decision
- (D) None

**Answer: (A) Important decision**

76. The layout of a drug store depends upon:

- (A) pharmacist /proprietor
- (B) Rule specified in schedule in schedule "N"
- (C) Availability of space
- (D) All

**Answer: (D) All**

77. Coding of items helps in:

- (A) Handling of store items
- (B) Standardisation of drugs
- (C) Reduction of item
- (D) All

**Answer: (A) Handling of store items**

78. Alpha numerical codification is suitable for a:

- (A) Large scale organisation
- (B) Small scale organisation
- (C) Medium scale organisation
- (D) All

**Answer: (A) Large scale organisation**

79. Purchase indent is an:

- (A) Internal document
- (B) Legal document
- (C) External document
- (D) Any of the mentioned

**Answer: (A) Internal document**

80. Indian Contract act was passed in:

- (A) 1992
- (B) 1872
- (C) 1972
- (D) 1892

**Answer: (B) 1872**

81. In which city is the headquarters of the International Monetary Fund (IMF) located?

- (A) Paris
- (B) Geneva
- (C) Washington, D.C.
- (D) London

**Answer: (C) Washington, D.C.**

82. In which year did the Berlin Wall fall?

- (A) 1989
- (B) 1991
- (C) 1985
- (D) 1995

**Answer: (A) 1989**

83. In which year did the Great Depression begin?

- (A) 1931
- (B) 1932
- (C) 1941
- (D) 1929

**Answer: (D) 1929**

84. In which year was the Kyoto Protocol adopted, aimed at reducing greenhouse gas emissions?

- (A) 1998
- (B) 1997
- (C) 2005
- (D) 2010

**Answer: (B) 1997**

85.

How many Fundamental Duties are enshrined in the Indian Constitution?

- (A) 10
- (B) 12
- (C) 11
- (D) 8

**Answer: (C) 11**

86. In which country is the ancient city of Petra located?

- (A) Jordan
- (B) Egypt
- (C) Iraq
- (D) Turkey

**Answer: (A) Jordan**

87. In which year did the Spanish Civil War end?

- (A) 1942
- (B) 1945
- (C) 1939
- (D) 1951

**Answer: (C) 1939**

88. How many times India has won the Hockey world cup?

- (A) 0
- (B) 1
- (C) 2
- (D) 5

**Answer: (B) 1**

89. In which year did the Chernobyl nuclear disaster occur?

- (A) 1986
- (B) 1979
- (C) 1991
- (D) 2000

**Answer: (A) 1986**

90. What is the capital city of Australia?

- (A) Brisbane
- (B) Sydney
- (C) Melbourne
- (D) Canberra

**Answer: (D) Canberra**

91. A living microbe with reduced virulence that is used for vaccination is considered:

- (A) A toxoid
- (B) Dormant
- (C) Virulent
- (D) Attenuated

**Answer: (D) Attenuated**

92. Allelopathy refers to

- (A) Inhibition of growth of one species by another by the production of toxins
- (B) Inhibition of sporulation of pathogen by the host
- (C) Altering the reproductive cycle of one organism by another
- (D) Inhibition of growth of one species by another by preventing reproduction

**Answer: (A) Inhibition of growth of one species by another by the production of toxins**

93. Before giving blood transfusion a nurse must note the date, time of collection and must be aware that Packed RBCs can be stored upto:

- (A) 25days
- (B) 55days
- (C) 45days
- (D) 35 -42days

**Answer: (D) 35 -42days**

94. A blood transfusion should be completed within 4 hours to:

- (A) Prevent bacterial growth
- (B) Prevent fluid overload
- (C) Prevent haemolytic transfusion reaction.
- (D) Prevent hypothermia

**Answer: (A) Prevent bacterial growth**

95. An air bubble in water will act like a

- (A) convex lens
- (B) convex mirror
- (C) concave lens
- (D) concave mirror

**Answer: (C) concave lens**



96. An epitope is

- (A) a B-cell.
- (B) a hapten.
- (C) an antibody.
- (D) the antigen determinant site.

**Answer: (D) the antigen determinant site.**

97. An immunoglobulin is a

- (A) carbohydrate.
- (B) fatty acid.
- (C) glycoprotein.
- (D) protein.

**Answer: (C) glycoprotein.**

98. 18G intra venous cannula is used for

- (A) Medication
- (B) Newborn baby
- (C) Subcutaneous injection
- (D) Blood transfusion

**Answer: (D) Blood transfusion**

99. Absence of which clotting factor leads to Hemophilia-A?

- (A) Factor VII
- (B) Factor VIII
- (C) Factor IX
- (D) Factor X

**Answer: (B) Factor VIII**

100. Accidental deaths occur near lime kilns due to..... poisoning

- (A) CO
- (B) barbiturate
- (C) CO<sub>2</sub>
- (D) Cyanide

**Answer: (C) CO<sub>2</sub>**

1.

d and l are a pair of..... configuration

(A)

Relative

(B)

Absolute

(C)

E-Z

(D)

Optical isomers

Ans: (A) Relative

2.

A bond in which atoms share a pair of electrons is

(A)

Ionic bond

(B)

Covalent bond

(C)

Electrovalent bond

(D)

Binary compound band

Ans: (B) Covalent bond

3.

.....is a heterocyclic compound with five membered ring.

(A)

Aziridine

(B)

Azoletine

(C)

Azole

(D)

Azoline

Ans: (C) Azole

4.

1,2-position with six members heterocyclic contain two nitrogen atom is called

(A)

Pyrimidine

(B)

Pyridine

(C)

Pyrazine

(D)

Pyridazine

Ans: (D) Pyridazine

5.

The number of optically active isomers of tartaric acid is

(A)

2

(B)

3

(C)

4

(D)

5

Ans: (A) 2

6.

Mixture of amino acid can be separated by

(A)

Sublimation

(B)

Chromatography

(C)

Distillation

(D)

None

Ans: (B) Chromatography

7.

Which form is more stable in confirmation of n-butane ?

(A)

Skew staggered

(B)

Skew eclipsed

(C)

Totally staggered (anti)

(D)

Fully eclipsed

Ans: (C) Totally staggered (anti)

8.

In a measurement, what is the term Used to specify the closeness of two or more measurements

(A)

Precision

(B)

Accuracy

(C)

Fidelity

(D)

Threshold

Ans: (A) Precision

9.

Compound A is highly volatile and insoluble in water so bonding in A is

(A)

Coordinate bond

(B)

Ionic bond

(C)

Covalent bond

(D)

Polar covalent bond

Ans: (C) Covalent bond

10.

Which form is more stable in confirmation of cyclohexane?

(A)

Chair

(B)

Boat

(C)

Twist boat

(D)

Half chair

Ans: (A) Chair

11.

Higher ring strain is associated with

(A)

Cyclopropane

(B)

Cyclobutane



(C)

Cyclopentane

(D)

Cyclohexane

Ans: (A) Cyclopropane

12.

Staggered and eclipsed is a type of

(A)

Conformational isomer

(B)

Geometrical isomer

(C)

Enantiomer

(D)

Optical isomer

Ans: (A) Conformational isomer

13.

Which of the following statement is not correct for benzene?

(A)

Heat of hydrogenation and combustion are lower than expected value

(B)

Benzene undergoes addition reaction rather than substitution reaction

(C)

All C=C in benzene have an intermediate bond length between C-C and C=C

(D)

Benzene follows huckel's rule

Ans: (B) Benzene undergoes addition reaction rather than substitution reaction

14.

A rectal suppository is used to treat a fever. This would represent what type of drug delivery?

(A)

Parenteral and local

(B)

Parenteral and systemic

(C)

Enteral and local

(D)

Enteral and systemic

Ans: (D) Enteral and systemic

15.

Which one of the following medicines does not rely on topical drug delivery?

(A)

Nasal spray

(B)

Anti-dandruff shampoo

(C)

Insulin pen

(D)

Nicotine patch

Ans: (C) Insulin pen

16.

Which one of the following is not a common dosage form for fentanyl?

(A)

Vaporizer

(B)

Lollipop

(C)

Transdermal patch

(D)

IV infusion

Ans: (A) Vaporizer

17.

Which one of the following is NOT true?

(A)

Modified release formulations are most useful for drugs with a long half-life

(B)

Modified release formulations can often reduce side-effects

(C)

Modified release formulations can improve patient compliance

(D)

Modified release formulation can be used for local drug delivery

Ans: (A) Modified release formulations are most useful for drugs with a long half-life

18.

Select the answer that contains one example each of a diluent, disintegrant, binder and glidant.

(A)

Lactose, microcrystalline cellulose, sodium starch glycollate and magnesium stearate

(B)

Lactose, sodium starch glycollate, PVP and colloidal silica

(C)

Calcium carbonate, colloidal silica, talc and magnesium stearate

(D)

Calcium carbonate, sodium starch glycollate, talc, microcrystalline cellulose

Ans: (B) Lactose, sodium starch glycollate, PVP and colloidal silica

19.

"Which one of the following is NOT true?

Tablets are often coated:"

(A)

to protect the drug from the external environment

(B)

to mask bitter tastes

(C)

to increase friability

(D)

to make swallowing easier

Ans: (C) to increase friability

20.

Which of the following excipients may be used to limit the presence of microorganisms in a liquid formulation?

(A)

Purified water

(B)

Sodium lauryl sulphate

(C)

Benzalkonium chloride

(D)

Ascorbic acid

Ans: (C) Benzalkonium chloride

21.

What is the role of xanthan gum within some liquid formulations?

(A)

Regulate pH

(B)

Control viscosity

(C)

Enhance solubility

(D)

Enhance stability

Ans: (B) Control viscosity

22.

Which of the following liquid dosage forms requires a sterile formulation?

(A)

Eye drops

(B)

Spray applied to skin

(C)

Shampoo

(D)

Oral syrup

Ans: (A) Eye drops

23.

Under the ideal gas laws, which of the following is NOT a correct assumption?

(A)



Molecules occupy a negligible volume

(B)

Gas volume are insensitive to changes in pressure

(C)

No energy is lost when molecules collide

(D)

Forces between molecules are insignificant

Ans: (B) Gas volume are insensitive to changes in pressure

24.

Boyle's law describes:

(A)

The relationship between pressure and temperature for ideal gases

(B)

The determinants of the universal gas constant

(C)

The relationship between pressure and volume for ideal gases

(D)

The relationship between temperature and volume for ideal gases

Ans: (C) The relationship between pressure and volume for ideal gases

25.

Which of the following is NOT true of Raoult's law

(A)

Raoult's law applies to miscible solvents in a closed system

(B)

The toluene-benzene mixtures obey Raoult's law

(C)

A pharmaceutical application of Raoult's law is the formulation of pressurised metered dose inhalers

(D)

The behaviour predicted by Raoult's law is independent of inter-molecular forces

Ans: (D) The behaviour predicted by Raoult's law is independent of inter-molecular forces

26.

Which one of the following definitions best describes the concept of work?

(A)

the flow of energy from one object or substance to another due to a difference in temperature

(B)

the flow of energy from one body to another through uniform molecular motion

(C)

the force associated with molecular motion

(D)

the random motion of molecules in a gas at low pressure

Ans: (B) the flow of energy from one body to another through uniform molecular motion

27.

Capsules in which powders are enclosed are made up of .....

(A)

Gelatine

(B)

Rice flour

(C)

Fructose

(D)

Dextrose

Ans: (A) Gelatine

28.

Which ONE of the following is the best description of a protogenic solvent?

(A)

A protogenic solvent accepts electron lone pairs

(B)

A protogenic solvent neither accepts or donates protons

(C)

A protogenic solvent donates protons

(D)

A protogenic solvent donates or accepts electron lone pairs

Ans: (C) A protogenic solvent donates protons

29.

What is the pH of a 0.015 M solution of potassium hydroxide (KOH)?

(A)

1.8

(B)

12.2

(C)

5.6

(D)

8.8

Ans: (B) 12.2

30.

Melatonin is produced by which of the following:

(A)

Pituitary gland

(B)

Pineal gland

(C)

Lymph node

(D)

Parathyroid body

Ans: (B) Pineal gland

31.

Echocardiogram helps a doctor to see images of the:

(A)

Liver

(B)

Kidney

(C)

Pancreas

(D)

Heart

Ans: (D) Heart

32.

Kupffer cells are present in

(A)

Liver

(B)

Brain

(C)

Bone

(D)

Lungs

Ans: (A) Liver

33.

The only movable bone of the skull is:

(A)

Maxilla

(B)

Ethmoid

(C)

Mandible

(D)

Sphenoid

Ans: (C) Mandible

34.

Which bone forms back of the head is:

(A)

Parietal bone

(B)

Temporal bone

(C)

Frontal bone

(D)

Occipital bone

Ans: (D) Occipital bone



35.

Muscular contractions require energy, in the form of

(A)

Pharma MCQ ADP

(B)

AMP

(C)

ATP

(D)

All

Ans: (C) ATP

36.

The first cervical vertebra is:

(A)

Atlas(C1)

(B)

Axis(C2)

(C)

Lumbar

(D)

Thoracic

Ans: (A) Atlas(C1)

37.

Which is not include in Extraction techniques for aromatic plants

(A)

Headspace trapping

(B)

Microdistillation

(C)

Phytonic extraction

(D)

Hydrodistillation techniques

Ans: (D) Hydrodistillation techniques

38.

Which method is best suitable for use in case of the thermolabile drugs

(A)

Decoction

(B)

Maceration

(C)

Digestion

(D)

Hot Continuous extraction

Ans: (B) Maceration

39.

Chromatography cannot be classified according to mechanism of separation as

(A)

Absorption chromatography

(B)

Partition chromatography

(C)

Ion exchange chromatography

(D)

All of these

Ans: (D) All of these

40.

Which drug is used in hepatoprotective drug?

(A)

Garcenia

(B)

Amla

(C)

Vinca

(D)

Lobelia

Ans: (B) Amla

41.

Which qualitative methods used for alkaloids?

(A)

Mayer's test

(B)

Wagner's test

(C)

Dragendorff's test

(D)

All of these

Ans: (D) All of these

42.

Which method are used for Qualitative analysis?

(A)

HPLC

(B)

HPTLC

(C)

Column chromatography

(D)

all of these

Ans: (D) all of these

43.

In biological systems, what is the primary function of minerals?

(A)

Energy storage

(B)

Structural support

(C)

Enzyme cofactors

(D)

Genetic information storage

Ans: (C) Enzyme cofactors

44.

In biophysical and biochemical techniques, what does the term "spectroscopy" refer to?

(A)

Study of ecosystems

(B)

Measurement of enzyme kinetics

(C)

Study of light absorption and emission

(D)

Analysis of metabolic pathways

Ans: (C) Study of light absorption and emission

45.

The receptors for pain are called:

(A)

Baroreceptors

(B)

Aloceptors

(C)

Nociceptors

(D)

Trauma receptors

Ans: (C) Nociceptors

46.

Which are the organs directly involved in the elimination of protons from the organism regarding the maintenance of the acid base balance?

(A)

Liver and heart

(B)

Kidney and heart

(C)

Lungs and kidneys

(D)

Liver and kidneys



Ans: (C) Lungs and kidneys

47.

A researcher consistently measures blood pressure inaccurately in the same way. This is an example of:

(A)

Random error

(B)

Observer bias

(C)

Instrument calibration

(D)

Systematic error

Ans:(D) Systematic error

48.

More technicians and pharmacists are employed in \_\_\_\_\_ than any other type of pharmacy.

(A)

Community pharmacy

(B)

Hospital pharmacy

(C)

Mail order pharmacy

(D)

Long-term care

Ans: (A) Community pharmacy

49.

The President Pharmacy Council of India is elected by:

(A)

Elected members of PCI

(B)

Nominated members of PCI

(C)

Ex-Officio members of PCI

(D)

Pharmacy council members

Ans: (D) Pharmacy council members

50.

The written procedures for activities conducted in a laboratory

(A)

Standard operating Procedures (SOPs)

(B)

Records

(C)

Operating procedures

(D)

None

Ans: (A) Standard operating Procedures (SOPs)

51.

Permission to import finished formulation of a new drug is given in form no:

(A)

45

(B)

45A

(C)

46

(D)

46A

Ans: (A) 45

52.

In a clinical trial, what is the role of a p-value in hypothesis testing?

(A)

Indicates effect size

(B)

Determines statistical power

(C)

Measures the strength of evidence against a null hypothesis

(D)

Represents sample size

Ans: (C) Measures the strength of evidence against a null hypothesis

53.

In biophysical chemistry, what does the term "cooperativity" refer to in protein binding?

(A)

Independence of binding sites

(B)

Synergistic binding behavior

(C)

Non-specific binding

(D)

Competitive binding

Ans: (B) Synergistic binding behavior

54.

In cell biology, what is the significance of the Golgi apparatus?

(A)

Lipid synthesis

(B)

Protein modification and packaging

(C)

DNA replication

(D)

Energy production

Ans: (B) Protein modification and packaging

55.

What is the function of the endoplasmic reticulum in a cell?

(A)

Energy storage

(B)

Structural support

(C)

Synthesis of proteins and lipids

(D)

Genetic information storage

**Ans: (C) Synthesis of proteins and lipids**

56.

What is the function of thyroid hormones in metabolic regulation?

(A)

Stimulate metabolic rate

(B)

Inhibit metabolic rate

(C)

Increase insulin secretion

(D)

Promote fat storage

Ans: (A) Stimulate metabolic rate

57.

What is the main source of energy in human nutrition?

(A)

Proteins

(B)

Fats

(C)

Carbohydrates

(D)

Vitamins

Ans: (C) Carbohydrates

58.

What is the primary marker for liver function in clinical biochemistry?

(A)

Creatinine



(B)

Alanine aminotransferase (ALT)

(C)

Creatine kinase

(D)

Alkaline phosphatase

Ans: (B) Alanine aminotransferase (ALT)

59.

What is the primary role of the cytochrome P450 enzyme family in drug metabolism?

(A)

Drug excretion

(B)

Drug absorption

(C)

Drug biotransformation

(D)

Drug distribution

Ans: (C) Drug biotransformation

60.

What is the purpose of a blood urea nitrogen (BUN) test in Clinical Biochemistry?

(A)

Assess kidney function

(B)

Evaluate liver function

(C)

Monitor cardiac function

(D)

Analyze lung function

Ans: (A) Assess kidney function

61.

How are drugs sourced from plant tissues evaluated for quality and efficacy?

(A)

Quality control

(B)

Biological sources

(C)

Chemical sources

(D)

Random sampling

Ans: (A) Quality control

62.

How can chemical methods be employed to detect adulteration in crude drugs?

(A)

Assess Color and Odor

(B)

Measure Particle Size

(C)

Analyze Chemical Composition

(D)

Evaluate Texture

Ans: (C) Analyze Chemical Composition

63.

How can fire hazards be minimized in a pharmaceutical facility?

(A)

Increase Flammable Materials

(B)

Provide Adequate Ventilation

(C)

Ignore Emergency Exits

(D)

Use Open Flames

Ans: (B) Provide Adequate Ventilation

64.

What does a 95% confidence interval represent?

(A)

The range within which the true population parameter is estimated to lie with 95% probability

(B)

The exact range of values of the population parameter

(C)

The probability that the sample mean falls within a specific range

(D)

The interval where the null hypothesis is likely to be true

Ans: (A) The range within which the true population parameter is estimated to lie with 95% probability

65.

What information does Nuclear Magnetic Resonance (NMR) spectroscopy provide about organic compounds?

(A)

Mass Distribution

(B)

Isotopic Composition

(C)

Electronic Configuration

(D)

Structural Details

Ans: (D) Structural Details

**66. (The Question will be deleted/not considered for assessment and hence no marks will be awarded)**

What is the basic instrumentation used in spectroscopic analysis?

(A)

Chromatographic methods

(B)

Basic instrumentation

(C)

Spectroscopic analysis

(D)

Filtration

Ans: (B) Basic instrumentation

67.

What is the primary application of Ultraviolet and visible spectrophotometry in the analysis of organic compounds?

(A)

Determine Molecular Weight

(B)

Identify Functional Groups

(C)

Measure Refractive Index

(D)

Analyze Crystal Structure

Ans: (B) Identify Functional Groups

68.

In the context of toxicology, what does the acronym "PPE" stand for?

(A)

Personal Protection Equipment

(B)

Potential Pathogen Exposure

(C)

Primary Pathway Elimination

(D)

Public Policy Enforcement

Ans: (A) Personal Protection Equipment

69.

Regulatory toxicology aims at guarding the public from dangerous chemical exposures, and depends primarily on which form of study:

(A)

observational human studies.

(B)

controlled laboratory animal studies.

(C)

controlled human studies.

(D)

environmental studies.

Ans: (B) controlled laboratory animal studies.



70.

Skin absorption is an example of which exposure pathway?

(A)

Inhalation

(B)

Ingestion

(C)

Dermal

(D)

Injection

Ans: (C) Dermal

71.

What does the "M" in ADME stand for?

(A)

Metabolism

(B)

Monitoring

(C)

Maintenance

(D)

Membrane

Ans: (A) Metabolism

72.

What is a common route of exposure for occupational toxicants in industrial settings?

(A)

Inhalation

(B)

Ingestion

(C)

Dermal

(D)

Ocular

Ans: (A) Inhalation

73.

What is the primary focus of safety assessment in regulatory toxicology?

(A)

Economic considerations

(B)

Human health risk assessment

(C)

Marketing strategies

(D)

Industrial production

Ans: (B) Human health risk assessment

74.

Which exposure pathway is associated with the intake of contaminated food or water?

(A)

Inhalation

(B)

Ingestion

(C)

Dermal

(D)

Ocular

Ans: (B) Ingestion

75.

In which Ayurvedic formulation preservative is not required?

(A)

Lepa

(B)

Vatika

(C)

Asava

(D)

Pisti

Ans: (C) Asava

76.

Candelabra trichomes are present in

(A)

*Verbascum thapsus*

(B)

*Digitalis purpurea*

(C)

*Senna angustifolia*

(D)

*Helicteris isora*

Ans: (A) *Verbascum thapsus*

77.

Adaptogen are substances which

(A)

Improve physical endurance

(B)

Maintain stamina in adverse and difficult environment

(C)

Increase the tolerance to change in environment

(D)

All of the these

And: (D) All of the these

78.

Which one is essential vitamin in culture media?

(A)

Thiamine

(B)

Ascorbic acid

(C)

Pantothenic acid

(D)

Biotin

Ans: (A) Thiamine

79.

Which one is not an intermediate in shikimic acid pathway?

(A)

Erythrose 4 phosphate

(B)

Chrosmic acid

(C)

Shikimic acid

(D)

Prephenic acid

Ans: (A) Erythrose 4 phosphate

80.

Aril is present in

(A)

Nutmeg

(B)

Cardamom

(C)

Strophanthus

(D)

Castor

Ans: (A) Nutmeg

81.

What is the process by which plants release water vapor into the atmosphere?

(A)

Transpiration

(B)

Photosynthesis

(C)

Respiration



(D)

Evaporation

Ans: (A) Transpiration

82.

What is the significance of the Kesavananda Bharati case in Indian constitutional law?

(A)

It established the doctrine of basic structure of the Constitution

(B)

It upheld the 42nd Amendment

(C)

It established the supremacy of Parliament

(D)

It introduced the concept of judicial review

Ans: (A) It established the doctrine of basic structure of the Constitution

83.

Which country was the first to grant women the right to vote?

(A)

New Zealand

(B)

United States of America

(C)

Canada

(D)

Sweden

Ans: (A) New Zealand

84.

Who composed the famous Indian patriotic song "Vande Mataram"?

(A)

Bankim Chandra Chattopadhyay

(B)

Rabindranath Tagore

(C)

Subramania Bharati

(D)

Sarojini Naidu

Ans: (A) Bankim Chandra Chattopadhyay

85.

Who developed the first successful polio vaccine?

(A)

Jonas Salk

(B)

Albert Sabin

(C)

Louis Pasteur

(D)

Alexander Fleming

Ans: (A) Jonas Salk

86.

What is the process of blood clotting called?

(A)

Coagulation

(B)

Hematopoiesis

(C)

Hemostasis

(D)

Phagocytosis

Ans: (C) Hemostasis

87.

What is the term of office of the Vice President of India?

(A)

4 years

(B)

5 years

(C)

6 years

(D)

3 years

Ans: (B) 5 years

88.

Which article of the Indian Constitution deals with the Right to Education?

(A)

Article 21-A

(B)

Article 45

(C)

Article 51

(D)

Article 29

Ans: (A) Article 21-A

89.

Who administers the oath of office to the President of India?

(A)

Prime Minister

(B)

Vice President

(C)

Chief Justice of India

(D)

Speaker of Lok Sabha

Ans: (C) Chief Justice of India

90.

Who appoints the Chief Justice of India?

(A)

Prime Minister

(B)

President

(C)

Parliament

(D)

Vice President

Ans: (B) President

91.

During blood transfusion the most important nursing responsibility is :

(A)

Draw a sample from the patient before each unit is transfuse(D)

(B)

Run the blood at a slower rate during the first few minutes of transfusion.

(C)

Warm the blood to body temperature to prevent chilling.

(D)

Maintain patency of the IV catheter with dextrose solution.

Ans: (B) Run the blood at a slower rate during the first few minutes of transfusion.

92.

During DNA replication the synthesis of the leading strand of DNA results in fragments known as

(A)

Okazaki fragments

(B)

Satellite segments

(C)

Kornberg segment

(D)

Double-helix segment

Ans: (A) Okazaki fragments

93.

Foetus is more vulnerable to Carbon monoxide poisoning than adult because.....

(A)

Greater content of haemoglobin

(B)



lower partial pressure of oxygen

(C)

Tendency to cause greater tissue hypoxia

(D)

All of these

Ans: (D) All off these

94.

The core of an electromagnet is made of soft iron because soft iron has

(A)

small susceptibility and small retentivity

(B)

large susceptibility and small retentivity

(C)

large density and large retentivity

(D)

small density and large retentivity

Ans: (B) large susceptibility and small retentivity

95.

The greatest resolution in light microscopy can be obtained with \_\_\_\_\_

(A)

Shortest wavelength of visible light used

(B)

Longest wavelength of visible light used

(C)

An objective with minimum numerical aperture

(D)

Shortest wavelength of visible light used and an objective with the maximum numerical aperture

Ans: (D) Shortest wavelength of visible light used and an objective with the maximum numerical aperture

96.

The heme portion of the hemoglobin molecule consists of:

(A)

Porphyrin ring with a molecule of Fe in the center.

(B)

A polypeptide chain containing Fe

(C)

A pyrrole ring with four molecules of Fe in the center.

(D)

Four porphyrin rings, each containing a molecule of Fe in the center

Ans: (D) Four porphyrin rings, each containing a molecule of Fe in the center

97.

Which of the following is a halogen?

(A)

Radon

(B)

Astatine

(C)

Cesium

(D)

Ruthenium

Ans:(B) Astatine

98.

Which of the following is not the stage of development of clinical feature of rabies?

(A)

Premonitory stage

(B)

Stage of irritability or Excitement

(C)

Stage of Paralysis

(D)

Stage of Narcosis

Ans:(D) Stage of Narcosis

99.

Which of the following is used in electron microscope?

(A)

Electron beams and magnetic fields

(B)

Light waves

(C)

Magnetic fields

(D)

Electron beams

Ans:(A) Electron beams and magnetic fields

100.

Which of the following method can be used to determine the number of bacteria quantitatively?

(A)

Spread-plate

(B)

Streak-plate

(C)

Pour-plate and spread plate

(D)

Pour plate

Ans:(C) Pour-plate and spread plate

**1**

**The largest and strongest bone in the skeleton is:**

**(A)**

**Thigh bone**

**(B)**

**Tibia**

**(C)**

**Fibula**

**(D)**

**Sternum**

**Answer:A**

**2**

**The total number of vertebrae in human being is**

**(A)**

38

(B)

33

(C)

40

(D)

20

**Answer:B**

3

**All are example of long bones except:**

(A)

**Femur**

(B)

**Tibia**

(C)



**Fibula**

**(D)**

**Patella**

**Answer:D**

**4**

**The human being consists of bones**

**(A)**

**601**

**(B)**

**106**

**(C)**

**206**

**(D)**

**602**

**Answer:C**

**5**

**Osteoporosis is a deficiency disorder occurs to:**

**(A)**

**Muscle**

**(B)**

**Tendons**

**(C)**

**Bones**

**(D)**

**Ligaments**

**Answer:C**

**6**

**The lower jaw is known as:**

**(A)**

**Maxilla**

**(B)**

**Ethamoid bone**

**(C)**

**Mandible**

**(D)**

**Clavicle**

**Answer:C**

**7**

**Hip joint is a type of:**

**(A)**

**Ball & socket**

**(B)**

**Hinge joint**

**(C)**

**Gliding joint**

**(D)**

**PivotJoint**

**Answer:A**

**8**

**Orientation of elimination reaction follows...**

**(A)**

**Markoniov's rule**

**(B)**

**Saytzeff rule**

**(C)**

**Michael addition**

**(D)**

**Bredt's Rule**

**Answer:B**

9

Orientation of addition reaction follows..

(A)

Markoniov's rule

(B)

Saytzeff rule

(C)

Michael addition

(D)

Bredt's Rule

Answer:A

10

Which of the following is a polar aprotic solvent?

(A)

**DMF**

**(B)**

**Etahanol**

**(C)**

**Water**

**(D)**

**Chloroform**

**Answer:A**

**11**

**Which of the following is a polar protic solvent?**

**(A)**

**Acetic acid**

**(B)**

**Etahanol**

(C)

Water

(D)

All of these

Answer:D

12

In which of the following structures, geometrical isomer is not possible?

(A)

Ethene

(B)

Propene

(C)

2-Pentene

(D)

**Both Ethene and Propene**

**Answer:D**

**13**

**How many isomers are present in the structure of glucose?**

**(A)**

**12**

**(B)**

**16**

**(C)**

**10**

**(D)**

**4**

**Answer:B**

**14**



**Which current is measured in Amperometric titrations**

**(A)**

**Diffusion current**

**(B)**

**Kinetic current**

**(C)**

**Limiting current**

**(D)**

**Residual current**

**Answer:A**

**15**

**No moles of solute dissolved per Liter of the solution are called**

**(A)**

**Molarity**

**(B)**

**Normality**

**(C)**

**Molality**

**(D)**

**Mole fraction**

**Answer:A**

**16**

**The principle of RIA is based on**

**(A)**

**Antigen-Antibody reaction**

**(B)**

**Antigen-Antibody complex**

**(C)**

**Unlabelled antigen**

**(D)**

**Antibody**

**Answer:A**

**17**

**Which of the following types of Chromatography involves the Separation of substances in a mixture Over a 0.2mm thick layer of an Adsorbent**

**(A)**

**Gas-liquid**

**(B)**

**Column**

**(C)**

**Thin layer**

**(D)**

**Paper**

**Answer:C**

**18**

**The secondary standard solution is**

**(A)**

**HCl**

**(B)**

$\text{Na}_2\text{CO}_3$

(C)

Oxalic Acid

(D)

$\text{KMnO}_4$

**DELETED**

19

Spraying reagent used in detection of amino acid is

(A)

Iodine solution

(B)

Benedict reagent

(C)

Molisch reagent

(D)

Esterification

DELETED

20

Sodium in liquid ammonia is used in..... type of reaction.

(A)

Birch reduction

(B)

Wolff kishner Reduction

(C)

Clemmensen reduction

(D)

Stephen reduction

**Answer:A**

**21**

**Which colour is obtained in Dragendorff reagent with alkaloid?**

**(A)**

**Orange red ppt**

**(B)**

**Cream colour ppt**

**(C)**

**Yellow ppt**

**(D)**

**Purple colour**

**Answer:A**

**22**

**Which method is not used for evaluation of volatile oil containing drugs?**

**(A)**

**Noller test**

**(B)**

**Salkowski test**

**(C)**

**Antimony trichloride**

**(D)**

**All of these**

**Answer:D**

**23**

**Which Precaution taken against contamination and mixing of herbal drugs in manufacturing?**

**(A)**

**Not required exhaust system**



**(B)**

**Using appropriate pressure differential in the process area**

**(C)**

**Expert technical staff are not required**

**(D)**

**all of these**

**Answer:B**

**24**

**What is the disadvantage of ultrasonic extraction**

**(A)**

**formation of free radicle**

**(B)**

**low cost**

**(C)**

**less time**

**(D)**

**all of these**

**Answer:A**

**25**

**Which chemical is not used in estimation of sennoside?**

**(A)**

**HCl**

**(B)**

**KOH**

**(C)**

**NaCl**

**(D)**

**Ether**

**Answer:C**

26

Life period of drugs is dealt in

(A)

Schedule 'Q'

(B)

Schedule 'R'

(C)

Schedule 'P'

(D)

Schedule 'T'

Answer: C

27

Offences and penalties under NDPS for Opium poppy:

(A)

NLT 10 years which may extend to 20 years and with fine NLT 1lakh rupees which may extend to 2 Lakh rupees.

**(B)**

**NLT 5 years which may extend to 10 years and with fine NLT 10 lakh rupees which may extend to 20 Lakh rupees.**

**(C)**

**NLT 3 years which may extend to 6 years and with fine NLT 1 lakh rupees which may extend to 2 Lakh rupees.**

**(D)**

**NLT 15 years which may extend to 20 years and with fine NLT 1 lakh rupees which may extend to 2 Lakh rupees.**

**Answer: A**

**28**

**In 1985, one of the following Act was passed:**

**(A)**

**Narcotic and psychotropic substance act**

**(B)**

**Drug and magic remedies act**

(C)

**The medical termination of pregnancy act**

(D)

**Poisonous Act**

**Answer: A**

29

**The odds ratio is used in:**

(A)

**Cross-sectional studies**

(B)

**Cohort studies**

(C)

**Case-control studies**

(D)

**Experimental studies**

**Answer: C**

30

**Centroxylic vascular bundle is present in**

**(A)**

**Malefern**

**(B)**

**Sweat flag**

**(C)**

**Maize**

**(D)**

**Sunflower**

**Answer:A**

**31**

**Open collateral vascular bundles are the characteristics of**

**(A)**

**Dicotyledonous plant**

**(B)**

**Monocotyledonous plant**

**(C)**

**Weeds**

**(D)**

**None of these**

**Answer:A**

**32**

**Iodine number of fat is determined to know:**

**(A)**

**Free fatty acid**

**(B)**

**Average molecular size**

**(C)**

**Relative unsaturation**

(D)

All of these

Answer:C

33

In plant tissue culture surface sterilization of explant is done by

(A)

Sodium hypochloride

(B)

Bromine water

(C)

Hydrogen peroxide

(D)

All of these

Answer:D

34



**Aril is**

**(A)**

**Outgrowth from micropyle and covering the seed**

**(B)**

**Stiff-bristle like appendages with wavy flowering glume of grasses**

**(C)**

**Warty out growth from micropyle**

**(D)**

**Succulent growth from hilum covering entire seed**

**Answer:D**

**35**

**Halphen's test is used for**

**(A)**

**Detection of cotton seed oil as an adulterant**

**(B)**

**Detection of artificial invert sugar**

**(C)**

**Saponins**

**(D)**

**Tannins**

**Answer:A**

**36**

**The LD50 (lethal dose for 50% of the population) is a measure of:**

**(A)**

**The probability of making a Type II error**

**(B)**

**The probability of rejecting the null hypothesis when it is true**

**(C)**

**The probability of making a Type I error**

(D)

The probability of accepting the null hypothesis

Answer:C

37

The mechanism of teratogenicity involves adverse effects on?

(A)

Adults

(B)

Children

(C)

Pregnant women

(D)

Elderly individuals

Answer:C

38

The primary route of exposure for airborne toxicants is?

(A)

Ingestion

(B)

Inhalation

(C)

Injection

(D)

Dermal

Answer:B

39

The process by which a substance is removed from the body is known as?

(A)

Absorption

(B)

Metabolism

(C)

Excretion

(D)

Distribution

Answer:C

40

Which of the following is NOT an initiating event in carcinogenesis?

(A)

DNA adduct formation

(B)

DNA strand breakage

(C)

mutation of proto-oncogenes

(D)

mitogenesis

Answer:D

41

Which organ system is primarily affected by cardiotoxicity?

(A)

Cardiovascular system

(B)

Respiratory system

(C)

Gastrointestinal system

(D)

Musculoskeletal system

Answer:A

42

Which phase of metabolism involves the addition of functional groups to make a toxicant more water-soluble?

(A)

Phase I

(B)

Phase II

(C)

Phase III

(D)

Phase IV

Answer:B

43

In the cardiovascular system, what is the purpose of the valves in the heart?

(A)

Regulation of blood pressure

(B)

Prevention of blood backflow

(C)

Oxygen transport

(D)

**Nutrient absorption**

**Answer:B**

**44**

**In the context of computers in biology, what does the term "GUI" stand for?**

**(A)**

**Graphical User Interface**

**(B)**

**General User Instruction**

**(C)**

**Genetic Unification Initiative**

**(D)**

**Global User Interface**

**Answer:A**

**45**

**In Microbiology, what is the purpose of Gram staining?**

**(A)**

**Identify bacterial species**

**(B)**

**Measure oxygen consumption**

**(C)**

**Detect viral infections**

(D)

Evaluate enzyme activity

Answer:A

46

In Physiology, what is the function of the respiratory system?

(A)

Transport oxygen in the blood

(B)

Regulate blood sugar levels

(C)

Support structural integrity

(D)

Transmit nerve signals

Answer:A

47

In structural biology, what does the term "secondary structure" refer to in proteins?

(A)

Sequence of amino acids

(B)

Three-dimensional folding pattern

(C)

Helical structure



(D)

Presence of disulfide bonds

Answer:C

48

In the clinical assessment of renal function, what does the glomerular filtration rate (GFR) measure?

(A)

Tubular secretion

(B)

Filtration of plasma by the kidneys

(C)

Urine concentration

(D)

Sodium reabsorption

Answer:B

49

What is the catalytic role of coenzymes in enzyme function?

(A)

Bind to substrates

(B)

Provide structural stability

(C)

Act as electron carriers

(D)

Inhibit enzyme activity

Answer:C

50

In Neuroanatomy, what does the term "Neuro" refer to?

(A)

Study of the nervous system

(B)

Study of genetic disorders

(C)

Analysis of biochemical pathways

(D)

Investigation of respiratory functions

Answer:A

51

In Nutrition, what does the term "Nutrition" signify?

(A)

Analysis of biochemical pathways

(B)

Study of large biological molecules

(C)

Study of dietary requirements and their effects on health

(D)

**Investigation of clinical applications of biochemistry**

**Answer:C**

**52**

**In the human body, which bone forms the forehead and the upper part of the eye sockets?**

(A)

**Parietal bone**

(B)

**Frontal bone**

(C)

**Temporal bone**

(D)

**Occipital bone**

**Answer:B**

**53**

**In the human skeleton, which type of joint is the elbow joint?**

(A)

**Ball and socket joint**

(B)

**Hinge joint**

(C)

**Pivot joint**

**(D)**

**Gliding joint**

**Answer:B**

**54**

**What are the basic steps involved in the preparation of herbarium sheets?**

**(A)**

**Grinding and extraction**

**(B)**

**Drying and pressing**

**(C)**

**Filtration and distillation**

**(D)**

**Mixing and heating**

**Answer:B**

**55**

**What challenges may arise in the interpretation of analytical data in pharmaceutical quality control?**

**(A)**

**Lack of Data**

**(B)**

**Data Consistency**

**(C)**

**Data Accuracy**

**(D)**

**Data Ambiguity**

**Answer:D**

**56**

**What components make up the cellular immune system?**

**(A)**

**Antibodies**

**(B)**

**T Cells and B Cells**

**(C)**

**Complement Proteins**

**(D)**

**Cytokines**

**Answer:B**

**57**

**What does C<sub>max</sub> represent in the context of bioavailability?**

**(A)**

**Maximum Concentration Reached**

**(B)**

**Time to Reach Maximum Concentration**

(C)

Area Under the Curve

(D)

Minimum Concentration Reached

Answer:A

58

How can the stability of buffers be enhanced in pharmaceutical formulations?

(A)

Increase Temperature

(B)

Use Reactive Solvents

(C)

Add Catalytic Species

(D)

Optimize Storage Conditions

Answer:D

59

How do cells maintain homeostasis through transport processes?

(A)

By Random Movement

(B)

By Active Transport

(C)

**By Disregarding Environmental Changes**

(D)

**By Inhibiting Cellular Communication**

**Answer:B**

**60**

**How does chromatography contribute to the evaluation of herbal drugs?**

(A)

**Filtration**

(B)

**Co-precipitation**

(C)

**Herbal drug evaluation**

(D)

**Extraction**

**Answer:C**

**61**

**Drug which help in reducing fever are-**

(A)

**Analgesics**

(B)

**Anti-inflammatory**

(C)

Antipyretic

(D)

Antiseptic

Answer:C

62

Calamine is a...

(a)

Zinc carbonate

(b)

Zinc sulphate

(c)

Zinc oxide

(d)

None of these

Answer: A

63

Chemically, What is the milk of magnesia?

(a)



**Calcium hydroxide**

**(b)**

**Magnesium carbonate**

**(c)**

**Magnesium hydroxide**

**(d)**

**Sodium bicarbonate**

**Answer: C**

**64**

**The usage of a Milk of magnesia is...**

**(a)**

**Antacid**

**(b)**

**Purgative**

**(c)**

**Coolant**

**(d)**

**Antiseptic**

**Answer: A**

**65**

**Milk of magnesia is a...**

**(a)**

**Solution**

**(b)**

**Emulsion**

**(c)**

**Suspension**

**(d)**

**None of these**

**Answer: C**

**66**

**Which of the following is a milk of magnesia color**

**(a)**

**Grey**

**(b)**

**Pink**

**(c)**

**White**

**(d)**

**None of these**

**Answer: C**

**67**

**Milk of magnesia pH is?**

**(a)**

**12.5**

**(b)**

**11.5**

**(c)**

**10.5**

**(d)**

**13.5**

**Answer: C**

**68**

**Ointments are which type of formulation preparation.**

**(a)**

**Liquid suspension**

**(b)**

**Liquid**

**(c)**

**Semisolid**

**(d)**

**All of these**

**Answer: C**

**69**

**The instruction for applying Ointment to the skin is...**

**(a)**

**With friction**

**(b)**

**Without friction**

**(c)**

**With and without friction**

**(d)**

**None of these**

**Answer: B**

**70**

**Regarding Necrosis, which of the following statement is true:**

**1.**

**Pancreas shows coagulative necrosis**

**2.**

**Heart shows coagulative necrosis**

**3.**

**Brain shows coagulation Necrosis**

**4.**

**Heart shows liquefactive necrosis**

**Answer:B**

**71**

**A simple ointment base is a**

**(a)**

**Oleaginous base**

**(b)**

**Absorption base**

**(c)**

**Emulsifying base**

**(d)**

**Water soluble base**

**Answer: A**

**72**

**Which procedure is used to make a simple ointment base?**

**(a)**

**Fusion**

**(b)**

Emulsification

(c)

Trituration

(d)

None of these

**DELETED**

73

Oleaginous base is .....

(a)

Aquaphor

(b)

Ploysorb

(c)

PEG

(d)

Kessolin

**Answer: A**

74

The container used to pack Ointments is...

(a)

Jars

(b)

Tubes

(c)

Jars and Tubes

(d)

None of these

Answer: C

75

Precipitated sulphur is used as a

(a)

Scabicide

(b)

Laxative

(c)

Skin irritant

(d)

None of these

Answer: A

76

Cetrimide is available in which color?

(a)

Black

(b)

White

(c)

Light green

(d)

yellow

**Answer: D**

77

Antibody mediated hypersensitivity does not occur in:

A.

Erythroblastosis fetalis

B.

Autoimmune Hemolytic anemia

C.

Arthus reaction

D.

Transfusion reaction



**Answer: C**

**78**

**A 50 years old male develops sudden severe abdominal pain radiating to back. His lab values shows raised Amylase level. Regarding this case fat necrosis may occur in which of the following organ:**

**A.**

**Brain**

**B.**

**Skeletal muscle**

**C.**

**Pancrease**

**D.**

**Heart**

**Answer: C**

**79**

**Substances used to counteract the effects of poison are-**

**(A)**

**Antitussives**

**(B)**

**Antidotes**

(C)

Anti-inflammatory

(D)

Anaesthetics

Answer:B

80

The drug used to prevent or treat convulsions in a epileptic patient is-

(A)

Antihistamine

(B)

Anticoagulant

(C)

Anaesthetics

(D)

Anticonvulsants

Answer:D

81

Which Indian city is known as the "Silicon Valley of India"?

a)

**Bangalore**

**b)**

**Hyderabad**

**c)**

**Pune**

**d)**

**Chennai**

**Answer:A**

**82**

**Which Indian state is famous for its tea gardens and is known as the "Tea Capital of India"?**

**a)**

**Assam**

**b)**

**Kerala**

**c)**

**Tamil Nadu**

**d)**

**Karnataka**

**Answer:A**

**83**

**Which planet is known as the "Red Planet"?**

a)

Mars

b)

Venus

c)

Jupiter

d)

Saturn

Answer:A

84

Which river forms the world's largest delta in Bangladesh?

a)

Ganges

b)

Brahmaputra

c)

Meghna

d)

Padma

**DELETED**

85

**Which river is known as the "Lifeline of Bangladesh"?**

**a)**

**Padma**

**b)**

**Brahmaputra**

**c)**

**Ganges**

**d)**

**Meghna**

**Answer:A**

**86**

**Which river is known as the "Lifeline of Rajasthan"?**

**a)**

**Luni**

**b)**

**Sabarmati**

**c)**

**Ravi**

**d)**

**Chambal**

**Answer:A**

87

**Which schedule of the Indian Constitution contains the list of languages recognized by the Constitution?**

a)

**Ninth Schedule**

b)

**Tenth Schedule**

c)

**Eighth Schedule**

d)

**Eleventh Schedule**

**Answer:C**

88

**Which article of the Indian Constitution deals with the Right to Information (RTI)?**

a)

**Article 19**

b)

**Article 21**

c)

**Article 32**

d)

**Article 42**

**Answer:A**

89

Which article of the Indian Constitution deals with the Right to Privacy, as recognized by the Supreme Court in the Justice K.S. Puttaswamy (Retd.) case?

a)

Article 19

b)

Article 21

c)

Article 32

d)

Article 44

Answer:B

90

Which constitutional amendment introduced reservation for economically weaker sections among the general category in India?

a)

100th Amendment

b)

101st Amendment

c)

122nd Amendment

d)

103rd Amendment

**Answer:4**

**91**

**"For blood donation, a donor should have haemoglobin level above"**

**(A)**

**12gm%**

**(B)**

**10gm%**

**(C)**

**11gm%**

**(D)**

**13gm%**

**DELETED**

**92**

**In which stage of erythroblast, haemoglobin appears first;**

**(A)**

**Late erythroblast or early normoblast**

**(B)**

**Late normoblast**

**(C)**

**Early erythroblast**

**(D)**

**Early normoblast**



**Answer:A**

**93**

**Lincoln index measures**

**(A)**

**Population mortality rate**

**(B)**

**Population natality rate**

**(C)**

**Population size**

**(D)**

**Population density**

**Answer:C**

**94**

**Real gases tend to become ideal Under**

**(A)**

**low pressure and high temperature**

**(B)**

**low pressure and low temperature**

**(C)**

**high pressure and low temperature**

**(D)**

**high pressure and high temperature**

**Answer:A**

**95**

**In smothering ..... finding has great evidential value.**

**(A)**

**presence of foreign material in nostrils and deeper respiratory passage**

**(B)**

**petechial hemorrhages on forehead**

**(C)**

**Cyanosis of lips and ear lobes**

**(D)**

**Crescentic abrasion marks on face**

**Answer:A**

**96**

**Isotopes differ in the number of**

**(A)**

**Protons**

**(B)**

**Neutrons**

**(C)**

**Electrons**

**(D)**

**Protons and electrons**

**Answer:B**

**97**

**Isotypes refers to variations in the:**

**(A)**

**heavy chain constant region.**

**(B)**

**heavy chain variable region.**

**(C)**

**light chain constant region.**

**(D)**

**light chain variable region.**

**Answer:A**

**98**

**No current will flow between two charged bodies if they have the same**

**(A)**

**resistance**

**(B)**

**charge**

**(C)**

**potential**

**(D)**

**charge/ potential ratio**

**Answer:C**

**99**

**Nuclear sizes are expressed in a unit named**

**(A)**

**Fermi**

**(B)**

**Angstrom**

**(C)**

**Newton**

**(D)**

**Tesla**

**Answer:A**

**100**

**Pieces of camphor placed on water move about rapidly. This is because of**

**(A)**

**diffusion**

**(B)**

**viscosity**

**(C)**

**surface tension**

**(D)**

**capillarity**

**Answer:C**

1.

The term atropisomerism is used for isomers

(A)

That can be interconverted by rotation about single bonds

(B)

That are geometrical isomers

(C)

That are enantiomers

(D)

That are optical isomers

**Answer: (C) That are enantiomers**

2.

The separation of racemic mixture into the pure enantiomer is

(A)

Racemization

(B)

Resolution

(C)

Isomerization

(D)

All of these

**Answer: (B) Resolution**

3.

A meso compound

(A)

Is an achiral molecule that contains chirality central?

(B)

Contains plane of symmetry

(C)

Is optically inactive

(D)

Is characterized by all of these

**Answer: (D) Is characterized by all of these**

4.

D and L are a pair of..... configuration

(A)

Relative

(B)

Absolute

(C)

Cis-trans

(D)

Optical

**Answer: (A) Relative**

5.

R and S are a pair of ..... Configuration.

(A)

Relative

(B)

Absolute

(C)

E-Z

(D)

Optical

**Answer: (B) Absolute**

6.

1,3-position with six member heterocyclic contain two nitrogen atom is called

(A)

Pyrimidine

(B)

Pyridine

- (C)  
Pyrazine
- (D)  
Pyridazine

**Answer: (A) Pyrimidine**

7.  
A gas whose molecule is monatomic is

- (A)  
Oxygen
- (B)  
Helium
- (C)  
Nitrogen
- (D)  
Chlorine

**Answer: (B) Helium**

8.  
A reaction between an acid and an alcohol produces an ester and

- (A)  
Carbon dioxide
- (B)  
Water
- (C)  
Glycerol
- (D)  
Ethanol

**Answer: (B) Water**

9.  
Removal of hydrogen from alkene product an



- (A)  
Alcohol
- (B)  
Alkane
- (C)  
Alkyne
- (D)  
Protein

**Answer: (C) Alkyne**

10.

Which of the following intermediates has a positive charge?

- (A)  
Carbocation
- (B)  
Carbanion
- (C)  
Carbene
- (D)  
Nitrene

**Answer: (A) Carbocation**

11.

Which of the following groups comes under EDG?

- (A)  
Nitro
- (B)  
Chloro
- (C)  
Amino
- (D)  
Aldehyde

**Answer: (C) Amino**

12.

Which of the following groups comes under EWG?

(A)

Nitro

(B)

Methyl

(C)

Amino

(D)

Anilide

**Answer: (A) Nitro**

13.

Which of the following rules is not used to determine the electronic configuration?

(A)

Paul's

(B)

Saytzeff

(C)

Hund's

(D)

Aufbau

**Answer: (B) Saytzeff**

14.

Lotions are which type of formulation preparation?

(A)

Liquid suspension

(b)

Liquid

(c)

Semisolid

(d)

All of these

**Answer: (C) Semisolid**

15.

Lotions are applied to the skin.

(A)

With friction

(B)

Without friction

(C)

With friction and without friction

(d)

None of these

**Answer: (B) Without friction**

16.

In lotion, Bentonite is used as...

(A)

Suspending agent

(B)

Moisturizer

(C)

Cooling agent

(D)

Fragrant

**Answer: (A) Suspending agent**

17.

The label on the lotion consists of the following instructions...

- (A)  
Shake well before use
- (B)  
For external use only
- (C)  
Shake well before use and For external use only
- (D)  
None of these

**Answer: (C) Shake well before use and For external use only**

18.  
Cetrimide is insoluble in ....

- (A)  
Water
- (B)  
Warm water
- (C)  
Ether
- (D)  
None of these

**Answer: (C) Ether**

19.  
Cetrimide cream is used as a

- (A)  
Bactericide
- (B)  
Antiseptic
- (C)  
Skin irritant
- (D)

None of these

**Answer: (B) Antiseptic**

20.

Cetrimide cream is packed in

(A)

Narrow mouth container

(B)

Plastic jars

(C)

Collapsible tubes

(D)

None of these

**Answer: (C) Collapsible tubes**

21.

The 7th edition of I.P. was published in \_\_\_\_

(A)

2007

(B)

2014

(C)

1996

(D)

2012

**Answer: (B) 2014**

22.

1 Gallon = \_\_\_\_ fluid ounces.

(A)

160

- (B)  
128
- (C)  
360
- (D)  
460

**Deleted**

23.  
Desert spoonful = \_ ml.

- (A)  
8
- (B)  
6
- (C)  
5
- (D)  
4

**Answer: (A) 8**

24.  
Scruple \_\_\_ grains.

- (A)  
10
- (B)  
20
- (C)  
30
- (D)  
40

**Answer: (B) 20**

25.

The direction "shake well before use" is given for \_

(A)

Powder

(B)

Suspension

(C)

Syrup

(D)

None of These

**Answer: (B) Suspension**

26.

Simple syrup is \_\_\_ a sucrose solution in water with sucrose concentration.

(A)

66.7% w/w saturated

(B)

66.2% w/w saturated

(C)

65.7% w/w, unsaturated

(D)

None of These

**Answer: (A) 66.7% w/w saturated**

27.

Emulsion that is used for external should be \_ type.

(A)

o/w

(B)

w/o

(C)

Both o/w and w/o

(D)

None of These

**Answer: (C) Both o/w and w/o**

28.

\_\_\_ is a topical drug that softens the skin.

(A)

Expectorant

(B)

Counter irritant

(C)

Laxative

(D)

Emollient

**Answer: (D) Emollient**

29.

\_ is a drug that induces mild irritation to produce reddening skin.

(A)

Surfactant

(B)

Sedative

(C)

Rubefacient

(D)

None of These

**Answer: (C) Rubefacient**

30.

Right side of the heart contains:

(A)



Impure blood

(B)

Pure blood

(C)

Mixed blood

(D)

Oxygenated blood

**Answer: (A) Impure blood**

31.

The artery which supplies the blood to kidney is:

(A)

Carotid artery

(B)

Iliac artery

(C)

Hepatic artery

(D)

Renal artery

**Answer: (D) Renal artery**

32.

The artery which supplies blood to the tongue:

(A)

Sublingual

(B)

Renal

(C)

Coronary

(D)

Carotid

**Answer: (A) Sublingual**

33.

Left side of the heart contains:

(A)

Impure blood

(B)

Pure blood

(C)

Lymph

(D)

C.S.F

**Answer: (B) Pure blood**

34.

The instrument used to record ECG is:

(A)

Echocardiogram

(B)

Electrocardiogram

(C)

Phonocardiogram

(D)

Electro Encephalo Gram

**Answer: (B) Electrocardiogram**

35.

Bulging of an artery is:

(A)

Ischemia

(B)

Aneurysm

(C)

Arteriosclerosis

(D)

Thrombosis

**Answer: (B) Aneurysm**

36.

Decrease in heart rate is:

(A)

Tachycardia

(B)

Bradycardia

(C)

Palpitation

(D)

Heart block

**Answer: (B) Bradycardia**

37.

What is Aim of Pharmacovigilance?

(A)

To improve patient care & safety in relation to medicines & all medical & para-medical interventions

(B)

To improve public health & safety in relation to the use of Medicines

(C)

To contribute to the assessment of benefit, harm, effectiveness and risk of medicines

(D)

All of these

**Answer: (D) All of these**

38.

Which is biological source of Dioscoria?

(A)

Dioscorea Deltoidea

(B)

Dioscorea Tokora

(C)

Dioscorea Deltoidea a  
nd Dioscorea Tokora

(D)

Dioscorea is obtained from Discoreac officinalis

**Answer: (A) Dioscorea Deltoidea**

39.

The amount of barbalo present in Aloe Vera is

(A)

<1%

(B)

3.5-4%

(C)

1-1.5%

(D)

2-2.5%

**Answer: (B) 3.5-4%**

40.

Eugenol is present in

(A)

Fennel

(B)

Tulsi

(C)

Cardamom  
(D)  
Coriander

**Answer: (B) Tulsi**

41.  
Cotton consists of epidermal trichomes of species.

(A)  
Gossypium herbaceum  
(B)  
Cannabis Sativa  
(C)  
Bombyx mori  
(D)  
Glycyrrhiza glabra

**Answer: (A) Gossypium herbaceum**

42.  
The diagnostic character for microscopical identification of Kurchi bark is

(A)  
Stratified cork  
(B)  
Horse shoe shaped stone cells  
(C)  
Fibres with Y-shaped pits  
(D)  
Sclereids containing oxalate crystals

**Answer: (B) Horse shoe shaped stone cells**

43.  
What is the primary role of vitamins in living organisms?

- (A)  
Energy production
- (B)  
Structural support
- (C)  
Enzyme cofactors
- (D)  
Genetic information storage

**Answer: (C) Enzyme cofactors**

44.

What is the purpose of gel electrophoresis in molecular biology?

- (A)  
Protein purification
- (B)  
DNA separation based on size
- (C)  
Measurement of enzyme kinetics
- (D)  
Antibody production

**Answer: (B) DNA separation based on size**

45.

Most reliable feature that differentiates malignant tumor from benign is:

- (A)  
Local invasion
- (B)  
Metastasis
- (C)  
Irregular surface
- (D)  
Capsule

**Answer: (B) Metastasis**

46.

Regarding type – I hypersensitivity:

(A)

Initial response is characterized by vasoconstriction

(B)

Late phase reaction occurs after few minutes

(C)

Develop after few days

(D)

Characterized by release of mast cell mediators

**Answer: (D) Characterized by release of mast cell mediators**

47.

What is the primary goal of a community-based intervention for NCD prevention?

(A)

Individual behavior change

(B)

Improving healthcare provider skills

(C)

Modifying the social and physical environment

(D)

Maximizing profits for healthcare providers

**Answer: (C) Modifying the social and physical environment**

48.

Sabin Feldman dye test is for diagnosis of

(A)

T.B

(B)

Toxoplasmosis

(C)

Leprosy

(D)

Schistosomiasis

**Answer: (B) Toxoplasmosis**

49.

A license form 28 or 28 B remains valid from date of issue for a period of:

(A)

2 years

(B)

5 years

(C)

4 years

(D)

10

Years

**Answer: (B) 5 years**

50.

All the following drugs belong to schedule-C except:

(A)

Insulin

(B)

Anti toxins

(C)

Adrenaline solution

(D)

Fish liver oil

**Answer: (D) Fish liver oil**



51.

Schedule X drugs of oral liquids are marketed in packing not exceeding:

(A)

300 ml

(B)

400ml

(C)

450ml

(D)

500ml

**Answer: (A) 300 ml**

52.

What is the function of ATP in cells?

(A)

Energy storage

(B)

Building cell membranes

(C)

Catalyzing reactions

(D)

Transporting oxygen

**Answer: (A) Energy storage**

53.

What is the main function of nucleotides in cells?

(A)

Energy storage

(B)

Building cell membranes

(C)

Genetic information

(D)

Transporting oxygen

**Answer: (C) Genetic information**

54.

What is the role of RNA polymerase in the process of transcription?

(A)

Synthesizing proteins

(B)

Copying DNA into RNA

(C)

Reading mRNA codons

(D)

Initiating translation

**Answer: (B) Copying DNA into RNA**

55.

What is the structure of DNA?

(A)

Single-stranded helix

(B)

Double-stranded helix

(C)

Triple-stranded helix

(D)

Random coil

**Answer: (B) Double-stranded helix**

56.

In Endocrinology, what is the function of insulin?

- (A)  
Stimulate glucose release
- (B)  
Inhibit glucose uptake
- (C)  
Stimulate glucose uptake
- (D)  
Inhibit insulin secretion

**Answer: (C) Stimulate glucose uptake**

57.

In Environmental & Clinical Biochemistry, what is the focus of Environmental Biochemistry?

- (A)  
Study of environmental factors
- (B)  
Investigating clinical applications of biochemistry
- (C)  
Exploring the history of biochemistry
- (D)  
Application of molecular biology techniques

**Answer: (A) Study of environmental factors**

58.

In Genetics, what does the term "Genotype" refer to?

- (A)  
Physical appearance
- (B)  
Genetic makeup
- (C)  
Inherited traits
- (D)  
External environment

**Answer: (B) Genetic makeup**

59.

In structural biology, what is the significance of electron microscopy?

(A)

High-resolution imaging of cellular structures

(B)

Determination of protein sequences

(C)

Analysis of enzyme activity

(D)

Identification of bacterial species

**Answer: (A) High-resolution imaging of cellular structures**

60.

What does the term "Comparative Anatomy & Evolution" refer to?

(A)

Exploration of the history of anatomy

(B)

Comparative analysis of anatomical structures in different species

(C)

Investigation of respiratory functions

(D)

Study of the genes in embryonic development

**Answer: (B) Comparative analysis of anatomical structures in different species**

61.

Which analytical technique is commonly used for determining the molecular weight and structural information of organic compounds?

(A)

Ultraviolet and visible spectrophotometry

(B)

Infrared spectrophotometry

(C)

Nuclear Magnetic Resonance spectroscopy

(D)

Mass Spectrometry

**Answer: (D) Mass Spectrometry**

62.

Which biological method is used to assess the authenticity of herbal drugs based on their genetic makeup?

(A)

DNA Barcoding

(B)

Microbial Cultures

(C)

Enzyme Assays

(D)

Immunological Tests

**Answer: (A) DNA Barcoding**

63.

Which instrument is commonly used for the measurement of humidity in the air?

(A)

Barometer

(B)

Hydrometer

(C)

Anemometer

(D)

Spectrometer

**Answer: (B) Hydrometer**

64.

How can electrical hazards be minimized in a pharmaceutical laboratory?

(A)

Using damaged cords

(B)

Avoiding grounding

(C)

Regular equipment inspection

(D)

Ignoring warning signs

**Answer: (C) Regular equipment inspection**

65.

How can regulatory compliance be maintained during the interpretation of analytical results?

(A)

Ignore Deviations

(B)

Document Deviations and Take Corrective Actions

(C)

Avoid Documentation

(D)

Delay Corrective Actions

**Answer: (B) Document Deviations and Take Corrective Actions**

66.

How does quality assurance differ from quality control in pharmaceuticals?

(A)

Same Meaning

(B)

Focus on Process

(C)

Focus on Product

(D)

Absence of Inspection

**Answer: (C) Focus on Product**

67.

How does regulatory drug analysis contribute to product quality control?

(A)

Increase Product Variability

(B)

Assess Product Safety and Efficacy

(C)

Bypass Regulatory Compliance

(D)

Decrease Analytical Testing

**Answer: (B) Assess Product Safety and Efficacy**

68.

The route of exposure that involves contact with the eyes is known as?.

(A)

Inhalation

(B)

Ingestion

(C)

Dermal

(D)

Ocular

**Answer: (D) Ocular**

69.

The term "percutaneous" refers to?

- (A)  
Inhalation
- (B)  
Ingestion
- (C)  
Through the skin
- (D)  
Injection

**Answer: (C) Through the skin**

70.

What is the primary goal of first aid in a chemical emergency?

- (A)  
Neutralizing the chemical
- (B)  
Providing immediate relief
- (C)  
Evacuating the area
- (D)  
Preventing further exposure

**Answer: (D) Preventing further exposure**

71.

The process by which a toxicant is transformed into a less toxic or more easily excretable form is?

- (A)  
Absorption
- (B)  
Distribution
- (C)  
Metabolism
- (D)  
Excretion



**Answer: (C) Metabolism**

72.

The process of pre-market approval for new drugs and medical devices is overseen by:

- (A)  
CDSCO
- (B)  
FSSAI
- (C)  
CIBRC
- (D)  
BIS

**Answer: (A) CDSCO**

73.

The registration and evaluation of chemicals fall under the responsibility of which regulatory agency in the European Union?

- (A)  
FDA
- (B)  
EPA
- (C)  
ECHA
- (D)  
CDC

**Answer: (C) ECHA**

74.

The regulatory assessment of the potential risk posed by a new chemical substance is typically based on:

- (A)  
Human clinical trials
- (B)  
Animal testing
- (C)  
Historical anecdotes
- (D)  
Social media opinions

**Answer: (B) Animal testing**

75.  
Which marine drug has a cardiovascular activity?

- (A)  
Spongiosine
- (B)  
Anthropleurins
- (C)  
Saxitoxin
- (D)  
Spongiosine and Anthropleurins

**Answer: (D) Spongiosine and Anthropleurins**

76.  
Corm is present in

- (A)  
Saffron
- (B)  
Colchicum
- (C)  
Nux-vomica
- (D)  
Saffron and Colchicum

**Answer: (D) Saffron and Colchicum**

77.

Relation between ester value saponification value and acid value is

(A)

Ester Value = Saponification value – Acid value

(B)

Ester Value = Saponification value + Acid value

(C)

Acid value = Ester value –

Saponification value

(D)

Ester Value = Saponification value + Acid value and Acid value = Ester value – Saponification value

**Answer: (A) Ester Value = Saponification value – Acid value**

78.

Gibberelin obtained from fungus is

(A)

Gibberellin fujikuroi

(B)

Fusarium heterospermum

(C)

Aspergillus niger

(D)

Gibberellin fujikuroi and Fusarium heterospermum

**Answer: (D) Gibberellin fujikuroi and Fusarium heterospermum**

79.

Palisade ratio is

(A)

Total number of palisade cells beneath each upper epidermal cell

(B)

Total number of palisade cells beneath mesophyll

(C)

Average number of palisade cells beneath each upper epidermal cells

(D)

None of these

**Answer: (C) Average number of palisade cells beneath each upper epidermal cells**

80.

Chrysanthemum is mainly used as

(A)

Pesticide

(B)

Insecticide

(C)

Rodenticide

(D)

Larvicide

**Answer: (B) Insecticide**

81.

Which Indian city is known as the "City of Lakes"?

(A)

Udaipur

(B)

Bhopal

(C)

Srinagar

(D)

Kochi

**Answer: (A) Udaipur**

82.

Which Indian city is known as the "Manchester of India"?

(A)

Ahmedabad

(B)

Surat

(C)

Kanpur

(D)

Mumbai

**Answer: (A) Ahmedabad**

83.

Which mountain range is the longest in the world?

(A)

Andes

(B)

Himalayas

(C)

Alps

(D)

Rockies

**Answer: (A) Andes**

84.

Which part of the Indian Constitution deals with Directive Principles of State Policy?

(A)

Part IV

(B)

Part III

(C)

Part V

(D)

Part II

**Answer: (A) Part IV**

85.

Who developed the first successful oral contraceptive pill?

(A)

Gregory Pincus

(B)

Margaret Sanger

(C)

Carl Djerassi

(D)

Alfred Kinsey

**Answer: (B) Gregory Pincus**

86.

Who is known as the "Maid of Orleans"?

(A)

Joan of Arc

(B)

Marie Antoinette

(C)

Queen Elizabeth I

(D)

Catherine the Great

**Answer: (A) Joan of Arc**

87.

Who is the Father of Mathematics?

- (A)  
Agarwal
- (B)  
Ramanujan
- (C)  
Pythagoras
- (D)  
Archimedes

**Answer: (D) Archimedes**

88.

Who wrote the famous novel "To Kill a Mockingbird"?

- (A)  
Harper Lee
- (B)  
Mark Twain
- (C)  
F. Scott Fitzgerald
- (D)  
J.D.  
Salinger

**Answer: (A) Harper Lee**

89.

Who was the first Chief Justice of India?

- (A)  
H.J. Kania
- (B)  
M. Patanjali Sastri
- (C)  
Mehr Chand Mahajan

(D)  
Ramanujan

**Answer: (A) H.J. Kania**

90.  
Who wrote the famous play "Romeo and Juliet"?

(A)  
William Shakespeare  
(B)  
Oscar Wilde  
(C)  
Jane Austen  
(D)  
Charles Dickens

**Answer: (A) William Shakespeare**

91.  
Which enzyme is used to join nicks in the DNA strand?

(A)  
Primase  
(B)  
DNA polymerase  
(C)  
DNA ligase  
(D)  
Endonuclease

**Answer: (C) DNA ligase**

92.  
Which is the 'odd man' in the following?



- (A)  
brass
- (B)  
common salt
- (C)  
cane sugar
- (D)  
Water

**Answer: (A) brass**

93.  
Which liquid is the most viscous?

- (A)  
Water
- (B)  
Diesel
- (C)  
Milk
- (D)  
Oil

**Answer: (D) Oil**

94.  
Which of the following are produced by microorganisms?

- (A)  
Alcoholic beverages
- (B)  
Fermented dairy products
- (C)  
Breads
- (D)  
All of the mentioned

**Answer: (D) All of the mentioned**

95.

Cry Gene' prevents which crop from boll worms?

(A)

Cotton

(B)

Mango

(C)

Tea

(D)

Wheat

**Answer: (A) Cotton**

96.

Death in house fire is mostly contributed to .....

(A)

Carbon dioxide poisoning

(B)

Burns

(C)

Carbon monoxide poisoning

(D)

Traumatic asphyxia

**Answer: (C) Carbon monoxide poisoning**

97.

Which of the following is called 'the King of Chemicals'?

(A)

Nitric acid

(B)

Hydrochloric acid

- (C)  
Silver nitrate
- (D)  
Sulphuric acid

**Answer: (D) Sulphuric acid**

98.  
Which of the following is not present in normal blood;

- (A)  
Fibrinogen
- (B)  
Thrombin
- (C)  
Prothrombin
- (D)  
Albumin

**Answer: (B) Thrombin**

99.  
Which of the following is not the unit of time

- (A)  
Parallactic second
- (B)  
Micro Second
- (C)  
Leap year
- (D)  
Solar day

**Answer: (A) Parallactic second**

100.

Which part of the compound microscope helps in gathering and focusing light rays on the specimen to be viewed?

(A)

Condenser lens

(B)

Magnifying lens

(C)

Objective lens

(D)

Eyepiece lens

**Answer: (A) Condenser lens**