



## MPHARMA (M PHARMA)

**Q.1.** In a very fine powder, all particles have to pass through sieve number

- |     |     |
|-----|-----|
| A). | 80  |
| B). | 60  |
| C). | 100 |
| D). | 20  |

**Q.2.** Rate of settling in a suspension is determined by

- |     |                        |
|-----|------------------------|
| A). | Charles equation       |
| B). | Reynold's equation     |
| C). | Stokes' equation       |
| D). | Noyes Whitney equation |

**Q.3.** Refractive index of a substance is defined as

- |     |                             |
|-----|-----------------------------|
| A). | $n = \frac{\sin r}{\sin i}$ |
| B). | $n = \frac{\sin i}{\sin r}$ |
| C). | $n = \frac{\sin i}{\cos r}$ |
| D). | $n = \frac{\cos r}{\sin i}$ |

**Q.4.** pH of a buffer solution can be calculated using

- |     |                                |
|-----|--------------------------------|
| A). | Stokes' equation               |
| B). | Bragg's equation               |
| C). | Van der Waals equation         |
| D). | Henderson-Hasselbalch equation |

**Q.5.** The charge stabilization of a colloidal dispersion is described by

- |     |                           |
|-----|---------------------------|
| A). | DLVO theory               |
| B). | Adsorption theory         |
| C). | Particulate matter theory |
| D). | Solid interface theory    |

**Q.6.** Viscosity of non-Newtonian fluids can be determined using

- |     |                        |
|-----|------------------------|
| A). | Ostwald's viscometer   |
| B). | Brookefield viscometer |
| C). | Capillary viscometer   |

D). Falling ball viscometer

**Q.7. Diseases and ailments which a drug may not purport to prevent or cure is listed in**

- A). Schedule J
- B). Schedule G
- C). Schedule H
- D). Schedule X

**Q.8. Para-phenylenediamine is used in the formulation of**

- A). Shampoo
- B). Hair bleach
- C). Hair dye
- D). Hair tonic

**Q.9. An example of dimensionless equation is**

- A). rate of heat loss by conduction
- B). rate of heat gain by convection
- C). Reynold's number
- D). velocity

**Q.10. The parameter not considered in 'constant drying conditions' is**

- A). viscosity
- B). humidity
- C). temperature
- D). pressure

**Q.11. According to pH-partition hypothesis, the process of drug absorption for molecules having molecular weight greater than 100 is governed by**

- A). aqueous solubility of the drug in the stomach
- B). octanol-water partition co-efficient of the drug
- C). crystallinity of the drug
- D). pKa of the drug, lipid solubility of unionized drug and pH at the absorption site

**Q.12.  $V_d$ , apparent volume of distribution is given by the ratio**

- A). 
$$V_d = \frac{\text{Plasma drug concentration}}{\text{Amount of drug in the body}}$$
- B). 
$$V_d = \frac{\text{Amount of drug in the body}}{\text{Plasma drug concentration}}$$
- C). 
$$V_d = \frac{\text{Administered dose}}{\text{Total body water}}$$
- D). 
$$V_d = \frac{\text{Total body water}}{\text{Administered dose}}$$

**Q.13. The usual method approved by USP for preparing water for injection is**

A).	Reverse Osmosis
B).	Osmosis
C).	Distillation
D).	Filtration

**Q.14. The bloom usually ranges from**

A).	900 to 1000 g
B).	500 to 1000 g
C).	50 to 100 g
D).	150 to 250 g

**Q.15. As per ICH guidelines for stability testing, India falls under which climatic zone?**

A).	Zone I
B).	Zone III
C).	Zone IV
D).	Zone II

**Q.16. ISO 9002 is**

A).	quality assurance in final inspection and tests
B).	guidelines for quality assurance in production and installation
C).	guidelines for quality improvement
D).	guidelines for quality plans

**Q.17. Batch production records, after distribution has been completed, should be retained for a period of**

A).	5 years
B).	4 years
C).	3 years
D).	1 year

**Q.18. 21 CFR part 312 is**

A).	new drug application
B).	institutional review board
C).	orphan drugs
D).	investigational new drug application

**Q.19. Certificate of pharmaceutical product is issued by the regulatory authority of exporting country on the format recommended by**

A).	ICH
B).	WHO
C).	CDSCO
D).	USFDA

**Q.20. SUPAC stands for**

A).	Scale Up and Pre Approval Changes
B).	Scale Up and Post Accreditation Charges
C).	Scale Up and Post Approval Changes
D).	Scale Up and Pre Assessment Changes

**Q.21. Permeation enhancers are used in transdermal drug delivery system to**

A).	alter the skin functions reversibly to favour drug absorption
B).	cause imbalance in normal skin flora
C).	increase the resistance of stratum corneum
D).	increase the hydration of stratum corneum

<b>Q.22.</b>	<b>pH-triggered phase transition system is used in</b>
A).	oral drug delivery
B).	ocular drug delivery
C).	topical drug delivery
D).	intra uterine drug delivery

<b>Q.23.</b>	<b>Corynebacteria are</b>
A).	gram negative non-acid fast
B).	gram positive acid fast
C).	gram positive non-acid fast
D).	gram negative

<b>Q.24.</b>	<b>The oil immersion lens in combination with eyepiece lens magnifies the actual object size by</b>
A).	10 times
B).	100 times
C).	10,000 times
D).	1000 times

<b>Q.25.</b>	<b>'Inscription' in a prescription refers to</b>
A).	general body of the prescription
B).	directions to the patient
C).	directions to the dispenser
D).	directions to the manufacturer

<b>Q.26.</b>	<b>Which one of the following is not used for moisture determination?</b>
A).	Loss on drying
B).	Azeotropic distillation
C).	Foreign material
D).	Karl Fischer method

<b>Q.27.</b>	<b>Acicular crystals in medullary rays is one of the characters exhibited in the powder of</b>
A).	cinnamon
B).	senna
C).	coriander
D).	ginger

<b>Q.28.</b>	<b>Volatile oils are extracted by which of the following methods?</b>
A).	Soxhlation
B).	Clevenger apparatus
C).	Refluxation
D).	Maceration

<b>Q.29.</b>	<b>Which one of the following is the precursor for the synthesis of ornithine?</b>
A).	Phenylalanine
B).	3-phosphoglyceric acid
C).	Asparatic acid
D).	Glutamic acid

<b>Q.30.</b>	<b>Halphen's test is one of the chemical tests meant for the detection of</b>
A).	volatile oils and fixed oils
B).	fixed oils only
C).	volatile oils only

D). clove oil

**Q.31. Which of the following type of stomata is generally found in senna leaflets?**

- A). Paracytic
- B). Cruciferous
- C). Diacytic
- D). Ranunculaceous

**Q.32. Phenazone test identifies the presence of which class of compounds?**

- A). Carbohydrates
- B). Resins
- C). Tannins
- D). Proteins

**Q.33. Name the type of Resin present in Benzoin.**

- A). Oleoresin
- B). Oleo-gum resin
- C). Gum resins
- D). Balsamic resin

**Q.34. Which of the following plants belongs to the family-Apocynaceae?**

- A). Vinca
- B). Opium
- C). Belladonna
- D). Cinchona

**Q.35. Chemodemes are group of plants of a species which**

- A). are morphologically identical
- B). are chemically identical
- C). have identical morphology but differ in chemical nature
- D). Both (a) and (b)

**Q.36. The concept of Tridosha is referred to in**

- A). Homeopathy
- B). Ayurveda
- C). Unani
- D). Naturopathy

**Q.37. Pericarp is the outermost layer of**

- A). leaves
- B). seeds
- C). stems
- D). fruits

**Q.38. Warfarin is used as a**

- A). fungicide
- B). rodenticide
- C). herbicide
- D). acaricide

**Q.39. Which one of the following is the solid compact Ayurvedic preparation?**

- A). Gutika
- B). Lehya

- C). Asava  
D). Bhasma

**Q.40. A food with high fat and low protein and carbohydrate content is referred to as**

- A). phytoestrogens  
B). processed dairy food  
C). nutritional supplements  
D). ketogenic diet

**Q.41. Use of garlic during warfarin medication leads to**

- A). reduction of bleeding time  
B). excessive drowsiness  
C). increase the risk of bleeding  
D). hepatotoxicity

**Q.42. Which of the following substances is not a natural colourant?**

- A). Lawsone  
B). Arbutin  
C). Annatto  
D). Betanin

**Q.43. Which one of the following is an example of natural sweetener?**

- A). Aspartame  
B). Sucralose  
C). Osladin  
D). Saccharin sodium

**Q.44. The principle of partition is involved in which type of chromatographic methods?**

- A). Paper chromatography  
B). Thin layer chromatography  
C). High performance thin layer chromatography  
D). Gel chromatography

**Q.45. Medicago sativa is commonly referred to as**

- A). Chicory  
B). Spirulina  
C). Fenugreek  
D). Alfalfa

**Q.46. Section 33E as per D and C Act 1940 states the regulations on**

- A). adulteration  
B). spurious drugs  
C). misbranded drugs  
D). manufacture and sale of A and U drugs

**Q.47. Which one of the following constituents is from plant origin?**

- A). Keratin  
B). Chitin  
C). Muscle fiber  
D). Cutin

**Q.48. The stages of development in plants refers to**

- A).

B).	Ontogeny
C).	Phylogeny
D).	Progeny
	Autogeny

**Q.49. Trigonella foenum-graecum contains**

A).	tropane derivatives
B).	purine derivatives
C).	glyoxaline derivatives
D).	pyridine derivatives

**Q.50. Quantitative determination of sample components applied on the plates in HPTLC is by**

A).	fluorometry
B).	scanning densitometry
C).	colorimetry
D).	turbidimetry

**Q.51. Number of tarsal bones of foot is**

A).	8
B).	6
C).	5
D).	7

**Q.52. Nucleotides are made up of**

A).	Base+Sugar+P
B).	Base+Sugar
C).	Base+Phosphate+2 Sugar
D).	Base+P

**Q.53. Which of the following is called capacitance vessels?**

A).	Arteries
B).	Veins
C).	Capillaries
D).	Arterioles

**Q.54. Megaloblastic anaemia occurs due to the deficiency of**

A).	vitamin D
B).	vitamin B <sub>6</sub>
C).	vitamin B <sub>12</sub>
D).	vitamin C

**Q.55. Gonadotropin releasing hormone stimulates the release of**

A).	FSH
B).	LSH
C).	TSH
D).	ACTH

**Q.56. Lactogenic hormone is secreted from which lobe of pituitary gland?**

A).	Anterior lobe
B).	Posterior lobe
C).	Anterior and posterior lobes

D). Intermediate lobe

**Q.57. Hormones that influence selective reabsorption are**

- A). TH+ADH
- B). TH+ Erythropoietin
- C). Parathyroid hormone+ADH
- D). prolactin+ADH

**Q.58. Bile juice passes into gall bladder through**

- A). pancreatic duct
- B). cystic duct
- C). hepatic duct
- D). bile duct

**Q.59. The maximum volume of air that can move into and out of the lungs is called**

- A). Total lung capacity
- B). Alveolar ventilation
- C). Vital capacity
- D). Inspiratory reserve volume

**Q.60. Hammer shaped auditory ossicle present in tympanic cavity is**

- A). malleus
- B). incus
- C). stapes
- D). None of the above

**Q.61. Receptors which show fastest pharmacological effect are called**

- A). kinase-linked receptors
- B). ion channel receptors
- C). nuclear receptors
- D). G protein coupled receptors

**Q.62. Therapeutic exploration is determined in which phase of clinical trial?**

- A). Phase I
- B). Phase II
- C). Phase III
- D). Phase IV

**Q.63. Surgical procedures are carried out at which stage of general anaesthesia?**

- A). Stage I
- B). Stage II
- C). Stage-III
- D). Stage-IV

**Q.64. Adrenaline is synthesized from which amino acid?**

- A). Tryptophan
- B). Alanine
- C). Glutamine
- D). Phenylalanine

**Q.65. Picking up of catecholamines from extra cellular space by the axoplasm of adrenergic nerves is called**

- A). uptake 1
- B). uptake 2



- C). uptake 3  
D). uptake 4

**Q.66. Phosphorylated enzyme complex of cholinesterase is formed by**

- A). Acetylcholine  
B). Neostigmine  
C). Parathion  
D). Pyridostigmine

**Q.67. Non selective  $\beta_2$  Receptor antagonist is**

- A). Isoprenaline  
B). Orciprenaline  
C). Salmeterol  
D). Terbutaline

**Q.68. Biphasic response of adrenaline was discovered by**

- A). Paul Ehrlich  
B). Alfred Gilman  
C). Louie Gilman  
D). Henry Dale

**Q.69. An Example of NSAID-prodrug is**

- A). Indomethacin  
B). Fenbufen  
C). Naproxen  
D). Ibuprofen

**Q.70. The Cysteinyl leukotriene receptor antagonist drug used in allergic asthma is**

- A). Montelukast  
B). Oxitropium  
C). Aminophylline  
D). Enprofylline

**Q.71. Ischemia due to fixed atheromatous stenosis of one or more coronary arteries is called**

- A). Stable angina  
B). M 1  
C). Arrhythmia  
D). Heart failure

**Q.72. Bruton's X-linked agammaglobulinemia is caused due to**

- A). Defective B cells  
B). Defective T cells  
C). Both Defective B and T cells  
D). Deficiency of Igs

**Q.73. How many pairs of true ribs are present in thoracic cage?**

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

**Q.74.** \_\_\_\_\_ is an increase in the number of parenchymal cells resulting in enlargement of organs or tissue.

- |     |             |
|-----|-------------|
| A). | Hypertrophy |
| B). | Dysplasia   |
| C). | Hyperplasia |
| D). | Metaplasia  |

**Q.75.** \_\_\_\_\_ Site of synthesis of chylomicrons is/are

- |     |                                 |
|-----|---------------------------------|
| A). | Liver                           |
| B). | Liver and macrophage            |
| C). | Liver and intestine             |
| D). | Liver, intestine and macrophage |

**Q.76.**  $E_2$  elimination reactions follow the \_\_\_\_\_ kinet

- |     |              |
|-----|--------------|
| A). | first order  |
| B). | second order |
| C). | pseudo order |
| D). | zero order   |

**Q.77.** Stability of carbocations of the alkyl groups follows the order

- |     |  |
|-----|--|
| A). | $\begin{array}{c} \text{CH}_3 \\   \\ \text{H}_3\text{C} - \text{C}^{\oplus} \\   \\ \text{CH}_3 \end{array} < \begin{array}{c} \text{CH}_3 \\   \\ \text{H}_3\text{C} - \text{C}^{\oplus} \\   \\ \text{H} \end{array} < \begin{array}{c} \text{CH}_3 \\   \\ \text{H}_2\text{C}^{\oplus} \end{array} > \text{CH}_3^{\oplus}$ |
| B). | $\text{CH}_3^{\oplus} < \text{CH}_2^{\oplus} > \begin{array}{c} \text{CH}_3 \\   \\ \text{H}_3\text{C} - \text{C}^{\oplus} \\   \\ \text{H} \end{array} > \begin{array}{c} \text{CH}_3 \\   \\ \text{H}_3\text{C} - \text{C}^{\oplus} \\   \\ \text{H}_3\text{C} \end{array}$  |
| C). | $\begin{array}{c} \text{CH}_3 \\   \\ \text{H}_3\text{C} - \text{C}^{\oplus} \\   \\ \text{CH}_3 \end{array} > \begin{array}{c} \text{CH}_3 \\   \\ \text{H}_3\text{C} - \text{C}^{\oplus} \\   \\ \text{H} \end{array} > \begin{array}{c} \text{CH}_3 \\   \\ \text{H}_2\text{C}^{\oplus} \end{array} > \text{CH}_3^{\oplus}$ |
| D). | None of the above  |

**Q.78.** 1,2- elimination reactions are characterized by which of the following?

- |     |                                      |
|-----|--------------------------------------|
| A). | Substrate containing a leaving group |
|-----|--------------------------------------|

- B). Substrate containing atom group near hydrogen
- C). Reaction is brought about by action at a base
- D). All of the above

**Q.79. Which of the following groups are electronic withdrawing in nature in aromatic electrophilic substitution reaction?**

- A).  $-\text{SO}_3\text{H}$ ,  $-\text{CN}$ ,  $-\text{COOH}$ ,  $-\text{CHO}$
- B).  $-\text{C}_6\text{H}_5$ ,  $-\text{CH}_3$ ,  $-\text{Cl}$ ,  $-\text{NO}_2$
- C).  $-\text{NH}_2$ ,  $-\text{OH}$ ,  $-\text{OCH}_3$ ,  $-\text{CH}_3$
- D).  $-\text{COOH}$ ,  $-\text{CHO}$ ,  $-\text{NH}_2$ ,  $-\text{OH}$

**Q.80. Conversion of arenes to non-conjugated cyclohexadienes follows**

- A). Clemmensen reduction
- B). Beckmann rearrangement
- C). Birch reduction
- D). Claisen-Schmidt condensation

**Q.81. Feist – Benary synthesis of furan derivatives involves the condensation of**

- A). Beta-Chloro-ketone with Alpha-ketoester in presence of pyrimidine
- B). Alpha-Chloro-ketone with Beta-ketoester in presence of pyrimidine
- C). Beta-Chloro-ketone with Alpha-ketoester in presence of pyridine
- D). Alpha-Chloro-ketone with Beta-ketoester in presence of pyridine

**Q.82. The role of nitrobenzene in skrap synthesis of Quinoline is**

- A). halogenation
- B). oxidation
- C). reduction
- D). nitration

**Q.83. Which of the following is the sulfonamide containing diuretic?**

- A). isosorbide
- B). benzamide
- C). ethacrynic acid
- D). acetazolamide

**Q.84. Which of the following heterocycles is present in Doxylamine succinate?**

- A). Pyridine
- B). Pyrimidine
- C). Pyrrole
- D). Piperidine

**Q.85. Pralidoxime chloride is used as an antidote for**

- A). organophosphate poisoning
- B). aspirin poisoning
- C). tetracycline poisoning
- D). paracetamol poisoning

**Q.86. Codeine is chemically a**

- A). diacetylmorphine

B).	methoxy morphine
C).	dimethoxy morphine
D).	methyl dihydromorphinone

**Q.87.** 6-Aminopenicillanic acid is biosynthetically derived from which of the amino acids?

A).	L-Alanine and L-Glycine
B).	L-Histidine and L-Valine
C).	L-methionine and L-Valine
D).	L-Cysteine and L-Valine

**Q.88.** Streptomycin on hydrolysis gives

A).	N-methyl-L-Glucosamine + Streptidine + L-ribose
B).	N-methyl-L-Glucosamine + Streptidine + L-streptose
C).	N-Ethyl-L-Glucosamine + Streptidine + L-ribose
D).	N-Ethyl-L-Glucosamine + Streptidine + L-streptose

**Q.89.** The hydrocarbon system, an octahydro-naphthacene is present in

A).	tetracyclines
B).	penicillins
C).	steroids
D).	aminoglycolides

**Q.90.** The solvents used in NMR are

A).	deuteriochloroform
B).	hexadeuterodimethyl sulfoxide
C).	deuterium oxide
D).	All of the above

**Q.91.** The phenomenon of phosphorescence can be observed in

A).	liquids
B).	solids
C).	fluids
D).	solutions

**Q.92.** In IR, carbonyl group of COOH is absorbed at the wavenumber of

A).	$3400 - 3500 \text{ cm}^{-1}$
B).	$600 - 800 \text{ cm}^{-1}$
C).	$2000 - 2200 \text{ cm}^{-1}$
D).	$1600 - 1800 \text{ cm}^{-1}$

**Q.93.** The composition of Kieselguhr G is

A).	polyamide
B).	silica gel without binder
C).	diatomaceous earth with calcium sulphate
D).	aluminium oxide without binder

**Q.94.** The composition of yellow glass filters used in monochromators is

- A). cadmium sulphide + cadmium selenide  
 B). cobalt  
 C). copper  
 D). cadmium sulphide

**Q.95.** Mathematically, Ilkovic equation is

- A).  $i_{\max} = 706nD^{1/2}cm^{2/3}t^{1/6}$   
 B).  $i_{\max} = 606nD^{1/2}cm^{2/3}t^{1/6}$   
 C).  $id = 607nD^{1/2}mc^{2/3}t^{1/2}$   
 D).  $id = 706nD^{1/2}mc^{2/3}t^{1/2}$

**Q.96.** The antidotes used in the treatment of cyanide poisoning are

- A). charcoal + potassium permanganate  
 B). sodium tetrathionate + sodium nitrate  
 C). sodium sulphate + sodium thiosulphate  
 D). sodium thiosulphate + sodium nitrite

**Q.97.** Standard Iron Solution used in the limit test for Iron is

- A). ferric ammonium sulphate  
 B). ferrous ammonium sulphate  
 C). ferric hydroxide  
 D). ferrous hydroxide

**Q.98.** The net ATP produced by the aerobic glycolysis of a glucose molecule is

- A). 30  
 B). 38  
 C). 36  
 D). 34

**Q.99.** \_\_\_\_\_ is the source of the steroid hormones formed in the gonads and adrenal cortex.

- A). Choline  
 B). Adrenaline  
 C). Dopamine  
 D). Cholesterol

**Q.100.** The sulfur atom at cysteine is obtained uniquely from which of the essential amino acids?

- A). Methionine  
 B). Histidine  
 C). Phenylalanine  
 D). Tyrosine