

**DRUGS INSPECTOR SELECTION TEST – BIHAR, 1998**

**PAPER - I**

- Q.1** To retain the analgesic activity of salicylates, the hydroxyl group must be at :  
(a) Para position (b) Ortho position (c) Meta position (d) All of these
- Q.2** Volatile drug may be best administered by :  
(a) Oral route (b) Inhalation (c) Sublingual (d) Intrathecal
- Q.3** A drug producing Cholestatic Jaundice is likely to be:  
(a) Chlorpromazine (b) Synthetic anabolic steroid (c) Carbon tetrachloride (d) Chloroform
- Q.4** The action of heparin is antagonised by :  
(a) Menadione (b) EDTA (c) Naloxame (d) Protamine sulphate
- Q.5** Which of the following processes of biotransformation necessarily inactivates the drug?  
(a) Oxidation-reduction (b) Hydrolysis (c) Conjugation (d) All of these
- Q.6** Ethyl alcohol is metabolized in the liver by:  
(a) Reduction (b) Oxidation (c) Hydrolysis (d) Conjugation
- Q.7** An estimation of potency of a drug with reference to a standard on a biological Indicator is known as  
(a) Bioassay (b) Biostandardization (c) Biomedical reaction (d) Biometrics
- Q.8** Prolonged and repeated use of drugs may lead to form :  
(a) Hypersensitivity (b) Tolerance (c) Allergy (d) Communication
- Q.9** Drug absorption is better with :  
(a) Insoluble drug (b) Powders (c) Lipid soluble drug (d) Ionised
- Q.10** A drug is introduced into the lumen of vein at least for one hour and the administration is known as:  
(a) Intravenous Injection (b) Intravenous infusion (c) Intravenous drip (d) All of these
- Q.11** Water soluble drugs are mostly absorbed by:  
(a) Simple diffusion (b) Active transport (c) Pinocytosis (d) Passive transport
- Q.12** Deficiency of which of the following leads to beri-beri?  
(a) Thyminine (b) Thiamine (c) Ascorbic acid (d) Calciferol
- Q.13** Night blindness is due to deficiency of :  
(a) Carotene (b) Calciferol (c) Tochoferol (d) Niacin

**Q.14** Acetazolamide inhibits :

- (a) Glucose-6-Phosphate dehydrogenase (b) Acetyl Cocarboxylase  
(c) Carbonic anhydrase (d) Hexokinase

**Q.15** Acetylcholine is hydrolyzed by :

- (a) Mono amino oxidase (b) Cholinestrase (c) Physiostigmine (d) Muscarine

**Q.16** Which one of the following drugs can be used for the treatment of vomiting?

- (a) Apomorphine hydrochloride (b) Chlorpromazine (c) Digitalis (d) Cocaine

**Q.17** Monoamine oxides is involved in the biotransformation of :

- (a) Serotonin (b) Acetylcholine (c) Atropine (d) Ephedrine

**Q.18** Hyperglycemia is produced by the deficiency of :

- (a) FSH (b) Insulin (c) Prolactin (d) Testosterone

**Q.19** which one of the following drugs can be used during hypothyroidism/thyroid crisis?

- (a) Iodide (b) Reserpine (c) Hexamethazone (d) Tyrosine

**Q.20** Fludrecortisone is useful :

- (a) For replacement therapy in Addison's disease (b) to treat bronchial asthma  
(c) In nephrotic syndrome (d) As agent in eczema

**Q.21** Glucocorticoids are used as :

- (a) Antifertility agent (b) Anti-inflammatory agent (c) Anticoagulant (d) Antimetabolite

**Q.22** Histamine is present in:

- (a) Eosinophil (b) Basophil (c) Erythrocytes (d) Monocytes

**Q.23** Which of the followings is likely to be mediator of allergic reactions?

- (a) Histamine (b) Dopamine (c) Mepyramine (d) Burimamide

**Q.24** The preparing and dispensing of drug is known as :

- (a) Pharmacotherapeutics (b) Pharmacy (c) Pharmacology (d) Pharmacognosy

**Q.25** Which animal tissue is most sensitive to acetylcholine for experiments in bioassay?

- (a) Rectus abdominis of frog (b) Leech dorsal muscle  
(c) Straub's heart (d) B.P. of anaesthetized cat

**Q.26** subcutaneously given drug shows longest duration of action if it given in the form of

- (a) Aqueous solution (b) Pellets (c) Aqueous suspension (d) Oily suspension

**Q.27** Enteric coated tablet release drug in the :

- (a) Stomach (b) Small intestine (c) Large intestine (d) oral cavity

**Q.28** The quickest absorption of drugs takes place by:

- (a) Oral route (b) I.M. route (c) I.V. route (d) Inhalation

- Q.29** Which of the following gives you the best therapeutic index?  
(a)  $LD_{50}/ED_{50}$  (b)  $ED_{50}/LD_{50}$  (c)  $CD_{50}/LD_{50}$  (d)  $LD_{50}/cD_{50}$
- Q.30** For ventricular arrhythmia, the drug of choice is :  
(a) Propranolol (b) Lignocaine (c) Dipheyl hydantoin (d) Quinidine
- Q.31** Mast cells are noted for their high content of Histamine and:  
(a) Norepinephrine (b) Acetylcholine (c) Epinephrine (d) Heparin
- Q.32** Drug used in acute bronchial asthma:  
(a) Epinephrine (b) Salbutamol (c) Aminophylline (d) Serotonin
- Q.33** Which of the following will produce constipation when used as antacid  
(a) Aluminium hydroxide gel (b) Magnesium trisilicate  
(c) Calcium carbonate (d) Sodium chloride
- Q.34** Anthraquinone group of purgatives are :  
(a) Osmotic purgative (b) Lubricant purgative (c) Irritant purgative (d) Bulk purgative
- Q.35** The drug of choice in the treatment of typhoid fever is:  
(a) Steroids (b) Chloramphenicol (c) Isoniazid (d) Tetracycline
- Q.36** The drug used in the treatment of Leprosy is :  
(a) Dapsone (b) Streptomycin (c) Ribavirin (d) Oleandomycin
- Q.37** The drug used in the treatment of hookworm infection is :  
(a) Piperazine (b) Mebendazole (c) Thiobendazole (d) Tetrachloethylene
- Q.38** The antimalarial drug is :  
(a) Quinine sulphate (b) Chloroquine (c) Proguanil (d) Quinidine
- Q.39** Which of the following drugs is an aldosterone antagonist?  
(a) Chlorthiazide (b) Spironolactone (c) Furseamide (d) Triametrene
- Q.40** Astringents are the drugs acting by :  
(a) Dialation of blood vessels (b) Constriction of blood vessels  
(c) precipitating the protein of epithelium (d) None of these
- Q.41** Net high energy phosphate bond formed per mole of glucose is :  
(a) 40 (b) 38 (c) 36 (d) 34
- Q.42** In pentose phosphate pathway G-6-P formation takes place utilizing 3 molecules of G-6-P is :  
(a)  $3\frac{1}{2}$  moles of G-6-P (b) 3 moles of G-6-P (c)  $2\frac{1}{2}$  moles of G-6-P (d) 2 moles of G-6-P

- Q.43** The amino acid is responsible for the biosynthesis of catecholamine is  
(a) Typtophan (b) Phenylalanine (c) Cysteine (d) Alanine
- Q.44** The invert sugar is :  
(a) Glucose (b) Sucrose (c) Starch (d) Glycogen
- Q.45** Rancidity of fat is due to oxidation of :  
(a) Saturated glycerides (b) Unsaturated glycerides (c) Both of a & b (d) none of these
- Q.46** Amphoteric nature of protein is due to presence of :  
(a) -NH<sub>2</sub> group & -COOH group (b) -S - S bond  
(c) -SH group & CH<sub>3</sub> (d) >C=O group
- Q.47** The simplest and smallest amino acid is :  
(a) Glycine (b) Alanine (c) Cystine (d) Valine
- Q.48** Which of the following fatty acids is essential fatty acid?  
(a) Stearic acid (b) Butyric acid (c) Archidonic acid (d) Oleic acid
- Q.49** Complete degradation of different amino acids in mammals takes places through :  
(a) Embden mayerhof pathway (b) Citric acid cyclic  
(c) Pentose pathway (d) uronic acid pathway
- Q.50** The enzymes of citric acid cycle are located in the :  
(a) Mitochondrial matrix (b) Cytoplasm (c) Endoplasmic reticulum (d) All of these
- Q.51** The antagonistic substance of prostaglandins is :  
(a) Phospholipase (b) Indomethacin (c) Arylsulfatase (d) Methysergide
- Q.52** All pencillins show some degree of activity against  
(a) Gram-negative cocci (b) Gram-postive cocci (c) both a & b (d) Virus
- Q.53** In low concentration streptomycin is :  
(a) Bacteriostatics (b) bacteriocidal (c) Both of these (d) none of these
- Q.54** Kanamycin is active against :  
(a) Salmonella typhi (b) Haemophilus Influenza  
(c) Proteus vulgaris (d) Serratia marcescens
- Q.55** Erythromycin is destroyed by :  
(a) Acidic pH (b) Alkaline pH (c) Neutral pH (d) none of these
- Q.56** Mycotoxins mean for :  
(a) Bacterial toxin (b) Fungal toxin (c) Protozoal toxin (d) Viral toxin
- Q.57** Enzymes are broadly classified into :  
(a) 10 classes (b) 8 classes (c) 6 classes (d) 4 classes



**Q.58** Enzymes are biological catalysts. The characteristic feature of which is :

- (a) Protein in nature (b) Lipid in nature
- (c) carbohydrate in nature (d) vitamin in nature

**Q.59** For proper development of bones, the following ions are essential :

- (a) Iodine and Iron (b) Zinc and Cobalt (c) Iron and Cobalt (d) Calcium and Phosphorus

**Q.60** In case of heart patient, the following salt restriction is essential :

- (a) K-restricted diet (b) Na – restricted diet
- (c) Ca - restricted diet (d) Mg - restricted diet

**Q.61** The antibiotic which is found to be most susceptible to mycobacterium tuberculosis

- (a) Penicillin (b) Ampicillin (c) Streptomycin (d) Chloramphenicol

**Q.62** Quinine is the drug of choice in Malaria which contains in its structure a Hetero-cyclic ring namely :

- (a) Pyridine (b) Quinoline (c) Indole (d) Imidazole

**Q.63** The main cause of deterioration of penicillin is the reactivity of the strained ring :

- (a) Thiazole (b)  $\beta$ -lactam (c) isoxazole (d) Carboxythiyl

**Q.64** An antineoplastic agent containing aziridine ring obtained from some strains of streptomycetes is :

- (a) Bleomycin A (b) Mitomycin C (c) Adriamycin (d) Mithramycin

**Q.65** An antihypertensive drug which is alkaloid, is obtained from :

- (a) *Rauwolfia serpentina* (b) *Papaver somnifera*
- (c) *Digitalis purpurea* (d) *Atropa belladonna*

**Q.66** When blood is placed in 0.89 % NaCl solution then there will be :

- (a) Hemolysis (b) No hemolysis (c) Shrinkage of RBC (d) Swelling of RBC

**Q.67** When steam is passed through a water insoluble liquid, the mixture starts boiling :

- (a) The liquid attains its normal boiling temperature
- (b) The mixture attains V.P. equal to the extranal pressure
- (c) The liquid stains 100°C
- (d) none of these

**Q.68** For an ideal solution of two compounds A and B the V.P. of A is equal to Product of V.P. of Compound B in pure state and :

- (a) The mole fraction of the compound A (b) The moles fraction of the compound B
- (c) No. of moles of compound A (d) No. of moles of compound B

**Q.69** At the triple point of water, there exists :

- (a) Four phase      (b) Three phase      (c) Two phase      (d) One phase

**Q.70** The solubility of hydrated sodium sulphate increases with temperature upto 32°C

And decreases with rise of temperature. This is due to :

- (a) Initial endothermic reaction turns into exothermic reaction  
(b) Ionization of sodium sulphate  
(c) Decomposition of sodium sulphate  
(d) none of these

**Q.71** When a liquid is poured to another liquid then the liquid will spread or not spread

And that depends on :

- (a) S.T. of sublayer greater than sum of S.T. of spreading liquid and interfacial tension between the sublayer and spreading liquid  
(b) S.T. of sublayer is lesser than.....  
(c) S.T. of spreading liquid is greater than sublayer liquid  
(d) S.T. of spreading liquid is equal to sublayer liquid

**Q.72** The content of Red Blood Cell cannot come out through cell membrane because :

- (a) Size of molecule inside the cell is much bigger than the pore of membrane  
(b) Membrane shows a high degree of sensitivity of cell content  
(c) There are no pores in the membrane  
(d) none of these

**Q.73** A sea driver experience a pathological condition term 'BENDS' if he floats up very Fast. This phenomenon can be explained by :

- (a) Rault's law      (b) Henry's law      (c) Nernst's law      (d) Dalton's law

**Q.74** The ionic product of water is  $1 \times 10^{-14}$  at 25°C and pH of water at this stage is :

- (a) 14      (b) 7      (c) 1      (d) 0

**Q.75** A solution having pH 5 was prepared by mixing certain quantities of acetic acid and Sodium acetate. The solution can offer a resistance to pH changes. The magnitude of This resistance is known as

- (a) Co-efficient of buffer      (b) Buffer capacity      (c) Acid strength of solution  
(d) Basic strength of solution

**Q.76** Standard EMF of a cell is defined as the measured EMF of a cell when :

- (a) Reactants have unit activity      (b) Products have unit activity  
(c) Reactants and products have unit activity      (d) Reactants and products have different activities

**Q.77** The distribution coefficient for iodine between water and carbon tetrachloride at 25°C

Is  $K = \frac{C_{H_2O}}{C_{CCl_4}} = 0.012$ . To effect better extraction of 0.2 gm iodine in 100 ml

Water, how do you use 20 ml carbon tetrachloride?

- (a) 20 ml  $CCl_4$  at a time
- (b) 20 ml  $CCl_4$  in portion taking 10 ml at a time
- (c) 20 ml of  $CCl_4$  in portion taking 5 ml at a time
- (d) Does not depend on the volume of  $CCl_4$  for Effective extraction

**Q.78** Hemoglobin is complex of metal. The metal present with hemoglobin is :

- (a) Copper
- (b) Iron
- (c) Manganese
- (d) Cobalt

**Q.79** Dialysis is used for purity of colloidal suspension from :

- (a) Sugar
- (b) Protein
- (c) Ionic substances
- (d) None of these

**Q.80** Carbon has six electrons its outer shell but is :

- (a) Bivalent compound
- (b) Trivalent compound
- (c) Tetravalent compound
- (d) Compound with variable valency

**Q.81** Reversible change of state is the basic principle in pharmaceutical preparations

- (a) Inhaler
- (b) Aerosols
- (c) Implants
- (d) none of these

**Q.82** When solid salol is mixed with solid thymol, the mixture melts below their

individual melting points. The lowest temperature at which both the solid and liquid co-exist is called

- (a) Critical solution temperature
- (b) Eutectic temperature
- (c) Critical temperature
- (d) Lower critical temperature

**Q.83** The ultraviolet light absorbed by organic compound causes :

- (a) Molecular vibration
- (b) Electronic excitation
- (c) Both molecular vibration and electronic excitation
- (d) none of these

**Q.84** Biologically active morphine molecule is :

- (a) Laevo rotatory
- (b) Detro rotatory
- (c) Racemic
- (d) Optically inactive

**Q.85** Molar refraction  $R_m$  of compound is :

- (a) An additive property
- (b) A constitutive property
- (c) both a & b
- (d) none of these

**Q.86** Water-ethyl alcohol mixture on fractional distillation gives 95 % alcohol distillate.

This is due to :

- (a) Inefficient distillation column
- (b) Non volatile nature of alcohol
- (c) Formation of azeotropic mixture
- (d) Formation of ideal solution

- Q.87** Water boils at  $100^{\circ}\text{C}$  at normal pressure. When 1 gm of NaCl is dissolved in 100 ml Of water, then its boiling point is :
- (a) Remain same as that of water                      (b) Increases  
(c) Decreases    (d) may depend on volume of solution
- Q.88** Glacier moves because :
- (a) Gravitational pull increased with deposition of ice (b) Heavy pressure of ice helps to melt the ice at the bottom (c) Temperature rises with pressure of ice (d) none of these
- Q.89** The equilibrium constant and rate constant of reaction indicates :
- (a) How far and how fast reaction will proceed (b) Only how far a reaction will proceed  
(c) Only how fast a reaction will proceed              (d) Possibility of reaction
- Q.90** The expiry date on the drug indicates that the concentration changes to :
- (a) half of its original concentration  
(b) 0 % of its original concentration  
(c) 10 % of its original concentration  
(d) Not related to its concentration but to its activity
- Q.91** To prepare oil in water emulsion, the emulsifying agent must have HLB value in the range of :
- (a) 0 – 3                      (b) 3 – 8  
(c) 8 – 16                      (d) 16 – 18
- Q.92** Stability of a suspension can be predicted by measuring :
- (a) Nernst potential                                      (b) Zeta potential  
(c) Density of suspension                              (d) Viscosity of suspension
- Q.93** Particle size can be determined by sedimentation method using :
- (a) Kelvin equation                                      (b) Stoke's law  
(c) Poiseuille's equation                              (d) Edmundson equation
- Q.94** Ethoxylated lanolin is :
- (a) Water soluble                                      (b) Oil soluble  
(c) produce O/W emulsion                              (d) Produce W/O emulsion
- Q.95** Polyoxyethylene sorbitan monopalmitate is :
- (a) Polysorbate – 20                                      (b) Polysorbate – 40  
(c) Polysorbate – 60                                      (d) Polysorbate – 80
- Q.96** Specified limit of particles as per U.S.P. in case of large volume infusions are :
- (a) 50 particles of  $10\ \mu\text{m}$  and lesser per ml of large infusions



- (b) 100 particles of 10  $\mu\text{m}$  and lesser per ml of large infusions
- (c) 30 particles of 10  $\mu\text{m}$  and lesser per ml of large infusions
- (d) 10 particles of 10  $\mu\text{m}$  and lesser per ml of large infusions

**Q.97** Moist heat sterilization of nutrient agar involve the following :

- (a) 15 lbs pr sq. inch 15 mins.
- (b) 15 lbs pr sq. inch  $\frac{1}{2}$  hr.
- (c) 10 lbs pr sq. inch  $\frac{1}{2}$  hr
- (d) 20 lbs pr sq. inch 15 mins.

**Q.98** Melted( $35^{\circ}\text{C} - 36^{\circ}\text{C}$ ) Cocoa butter used as suppository base on snap cooling will Produce

- (a) The v-form which slowly changes to  $\beta'$ -form
- (b) The  $\beta'$  form resist to  $\alpha$  form
- (c) The  $\gamma$ -form is obtained
- (d)  $\alpha$ -form is obtained

**Q.99** The cash book records :

- (a) All cash receipts
- (b) All cash payments
- (c) Both a & b
- (d) Cash & credit safe of goods

**Q.100** Profit and loss Account shows :

- (a) The financial position of the concern
- (b) The degree of honesty with which accounting work has been done
- (c) The capital invested in the business
- (d) The profit earned or loss suffered by the firm

### Answer Key

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