

# UPSC DRUG INSPECTOR 2019

- 1. A non-volatile, highly lipid soluble drug is metabolized at a rate of 15% per hour. On intravenous injection, it produces general anaesthesia for 10 minutes. Which process is responsible for termination of its action?**
  - (a) Metabolism in liver
  - (b) Excretion by kidney
  - (c) Plasma Protein Binding
  - (d) Redistribution
- 2. Aspirin overdose is characterized by:**
  - (a) Hyperthermia, metabolic acidosis and coma
  - (b) Fever, hepatic dysfunction and encephalopathy
  - (c) Rash, interstitial nephritis and acute renal failure
  - (d) Rapid, fulminant hepatic failure
- 3. A 40-year-old patient complains of severe pain along left side of jaw and face. The best choice for this neuralgic pain is:**
  - (a) Methadone
  - (b) Tramadol
  - (c) Lorazepam
  - (d) Carbamazepine
- 4. The first Phenothiazine derivative introduced into the therapy of psychotic disorders was:**
  - (a) Promazine
  - (b) Chlorpromazine
  - (c) Triflupromazine
  - (d) Thioridazine
- 5. Which one of the following is NOT a rapid acting insulin?**
  - (a) Insulin lispro
  - (b) Insulin aspart
  - (c) Insulin glulisine
  - (d) Insulin glargine
- 6. Which one of the cardiac aglycones contains an aldehydic group in its structure?**
  - (a) Scillaren A
  - (b) Digitoxigenin
  - (c) Digoxigenin
  - (d) Strophanthidin
- 7. Which one of the following is the only life saving measure in case of anaphylactic shock?**
  - (a) Intravenous hydrocortisone
  - (b) Intravenous adrenaline
  - (c) Intravenous chlorpheniramine maleate
  - (d) Intravenous glucose-saline
- 8. Which one of the following drugs used in the treatment of diabetes does NOT contain heterocyclic nucleus?**
  - (a) Glyburide
  - (b) Glimepiride
  - (c) Repaglinide
  - (d) Glipizide
- 9. An amino acid which gives a yellow precipitate in the Xanthoproteic reaction is:**
  - (a) Glycine
  - (b) Alanine
  - (c) Tyrosine
  - (d) Leucine
- 10. Which one of the following drugs causes physiological dependence only?**
  - (a) Cocaine
  - (b) Morphine
  - (c) Alcohol
  - (d) Nalorphine
- 11. Which one of the following non-depolarizing blockers can be used as alternative to Succinylcholine for tracheal intubation without the disadvantage of depolarizing block and cardiovascular changes?**
  - (a) Doxacurium
  - (b) Atracurium
  - (c) Rocuronium
  - (d) Pancuronium
- 12. Homatropine is a:**
  - (a) Tropine ester of mandelic acid
  - (b) Tropine ester of aminoacetic acid
  - (c) Tropine ester of aminoformic acid
  - (d) Tropine methyl bromide ester of mandelic acid
- 13. Consider the following statements regarding glycyrrhizin:**
  1. It is a bioactive constituent of Glycyrrhiza glabra
  2. It has interaction with CYP3A12
  3. It has a higher interaction potential with CYP2D6 compared with CYP3A4
  4. It causes sweetness of liquorice

- Which of the statement given above is/are correct?**  
 (a) 1, 2 and 3                      (b) 1, 3 and 4  
 (c) 1, 2 and 4                      (d) 2, 3 and 4
- 14. Which one of the following statements is NOT true for Sodium valproate?**  
 (a) It is effective in grand mal and petit mal epilepsy  
 (b) It is not safe in patient with liver disease  
 (c) It should not be given to children  
 (d) It increases brain concentration of gamma-amino-butyric acid (GABA)
- 15. Which one of the following statements is correct or Sulphonylureas?**  
 (a) They act by increasing insulin release  
 (b) They tend to produce weight loss  
 (c) They are effective in correcting ketoacidosis  
 (d) They are suitable for use in pregnancy
- 16. Morphine is contraindicated or must be used with extreme caution in several situations. Such situations include:**  
 1. Adrenal insufficiency  
 2. Biliary tract surgery  
 3. Hypothyroidism  
**Select the correct answer using the code given below:**  
 (a) 1, 2 and 3                      (b) 1 and 2 only  
 (c) 2 and 3 only                      (d) 1 and 3 only
- 17. Which one of the following statements is NOT correct for Morphine?**  
 (a) It causes histamine release  
 (b) It undergoes extensive first pass metabolism  
 (c) It has no active metabolite  
 (d) Its action may be metabolized by pentazocine
- 18. A 50-year old obese patient with type-2 diabetes and a history of alcoholism probably should not receive metformin because it can increase the risk of:**  
 (a) Excessive weight gain  
 (b) Lactic acidosis  
 (c) Hypoglycemia  
 (d) Serious hepatotoxicity
- 19. Levodopa is usually given with Carbidopa for the treatment of Parkinson's disease because:**  
 (a) it crosses the blood-brain barrier  
 (b) it inhibits monoamino oxidase-A (MAO-A)  
 (c) it inhibits monoamino oxidase-B (MAO-B)  
 (d) it inhibits DOPA decarboxylase in peripheral tissue
- 20. Which one of the following drugs is most effective to treat peptic ulcers?**  
 (a) Bromocriptine                      (b) Cimetidine  
 (c) Ergotamine                      (d) Ketanserin
- 21. Which of the following statements regarding thalidomide is NOT correct?**  
 (a) It is currently used in the treatment of multiple myeloma  
 (b) Apart from teratogenesis, it does not show any other major toxicity  
 (c) It is also used for erythema nodosumleprosum  
 (d) Lenalidomide is an immunomodulatory derivative of thalidomide (IMiD)
- 22. Which of the following are the side effects associated with Doxorubicin?**  
 1. Cardiotoxicity  
 2. Alopecia  
 3. Diarrhoea  
 4. Desquamation of skin  
**Select the correct answer using the code given below:**  
 (a) 1 and 3                      (b) 1 and 4  
 (c) 1 and 2                      (d) 3 and 4
- 23. Which one of the following statements is NOT true with relation to characterizing the essential (primary) hypertension?**  
 (a) Elevation of diastolic blood pressure  
 (b) Decreased cardiac output

- (c) An increase in peripheral resistance  
(d) Normal cardiac output
24. Which of the following are intermediates in the biosynthesis of Cholesterol?
- (a) Isoprenaline and Aldosterone  
(b) Mevalonic acid and Aldosterone  
(c) Mevalonic acid and Isopentenyl Pyrophosphate  
(d) Isoprenaline and Isopentenyl Phosphate
25. Consider the following statements regarding Noradrenaline:
- Its L-isomer is pharmacologically active.
  - It is a potent agonist for  $\beta_1$  receptor.
  - It increases the peripheral vascular resistance.
- Which of the statements given above are correct?
- (a) 1 and 2 only      (b) 1, 2 and 3  
(c) 2 and 3 only      (d) 1 and 3 only
26. Consider the following statements regarding Cocaine:
- It was the first local anaesthetic discovered.
  - It is isolated from leaves of *Erythroxylum coca*.
  - It is used in combination with other anaesthetic agents to induce general anaesthesia.
- Which of the statements given above are correct?
- (a) 1, 2 and 3      (b) 1 and 3 only  
(c) 2 and 3 only      (d) 1 and 2 only
27. Which one of the following does NOT belong to the class of high ceiling (loop) diuretics?
- (a) Furosemide      (b) Bumetanide  
(c) Acetazolamide      (d) Torasemide
28. Which one of the following drugs is administered by intranasal spray/application for systemic action?
- (a) Phenylephrine  
(b) Desmopressin  
(c) Azelastine  
(d) Beclomethasone dipropionate
29. The major advantage of Clarithromycin over Erythromycin is that:
- (a) It is active against strains of streptococci that are resistant to erythromycin  
(b) It does not inhibit hepatic drug metabolizing enzymes  
(c) It has greater activity against *Helicobacter pylori*  
(d) It is active against methicillin resistant strains of staphylococci
30. The mean BP falls with treatment of Isoprenaline. It is due to:
- (a) Rise in systolic BP only  
(b) Drop in diastolic BP only  
(c) Rise in systolic BP and marked fall in diastolic BP  
(d) Drop in systolic BP and rise in diastolic BP
31. The most stable polymorphic form has:
- (a) Highest melting point and lowest dissolution rate  
(b) Highest solubility and lowest viscosity  
(c) Lowest melting point and lowest dissolution rate  
(d) Highest melting point and highest dissolution rate
32. Which one of the following comes under Type I glasses used for containers?
- (a) Soda-lime treated glasses  
(b) Borosilicate glass  
(c) Soda glass  
(d) Soda-lime treated and borosilicate glass
33. Which one of the following statements is NOT correct for an ideal suppository base?
- (a) Solid-fat index curve is broad  
(b) Acid value is below 0.2  
(c) Saponification value ranges from 200 to 245

- (d) Iodine value is less than 7
34. **Quickest way of revealing capping and lamination problem in tablet is:**  
 (a) Friability test  
 (b) Hardness test  
 (c) Weight variation test  
 (d) Disintegration
35. **The component responsible for red colour in *Capsicum* is:**  
 (a) Capsaicin (b) Capsanthin  
 (c) Protein (d) Ascorbic acid
36. **Enfleurage is a method used for extraction of which one of the following?**  
 (a) Volatile oil (b) Fixed oil  
 (c) Gum (d) Starch
37. **Product line extensions are dosage forms in which:**  
 (a) Physical form or strength, but not the use or indication of the product changes  
 (b) Use or indication, but not the physical form or strength of the product changes  
 (c) Physical form or use, but not the strength or indication of the product changes  
 (d) Strength or indication, but not the physical form or use of the product changes
38. **What volume of 50% v/v alcohol could be prepared from 1 litre of 95% v/v alcohol?**  
 (a) 2000 ml (b) 1900 ml  
 (c) 1800 ml (d) 2100 ml
39. **Emulsifying agent acts by which of the following mechanisms?**  
 1. Formation of interfacial film  
 2. Preventing coalescence  
 3. Lowering of interfacial tension  
**Select the correct answer using the code given below:**  
 (a) 1 and 2 only (b) 2 and 3 only  
 (c) 1 and 3 only (d) 1, 2 and 3
40. **The adult dose of a drug is 325 mg. What should be the dose for a 3-year-old child?**  
 (a) 65 mg (b) 60 mg  
 (c) 55 mg (d) 50 mg
41. **The freezing point of 1% w/v solution of a drug is  $-0.090^{\circ}\text{C}$ . The concentration of drug that will yield a solution isotonic with blood plasma is:**  
 (a) 6.42 % w/v (b) 0.402 % w/v  
 (c) 4.63 % w/v (d) 5.77 % w/v
42. **Which of the following is a possible mechanism of BHA (Butylated hydroxy anisole) as an antioxidant?**  
 (a) It has lower redox potential than the drug substance  
 (b) It acts as a chelating agent  
 (c) It reacts with free radical thus inhibiting the chain reaction  
 (d) It has more redox potential than the drug substance
43. **A powdered chemical is defined as very fine powder if:**  
 (a) It completely passes through a sieve no. 80  
 (b) It completely passes through a sieve no. 120  
 (c) It passes through a sieve no. 80 and not more than 40 % through sieve no. 100  
 (d) It passes through a sieve no. 80 and not more than 40 % through sieve no. 120
44. **In phase separation coacervation process of microencapsulation, phase separation can be carried out by which of the following?**  
 1. Addition of a salt  
 2. Changing the temperature of the solution  
 3. Inducing Polymer-Polymer Interaction  
**Select the correct answer using the code given below:**  
 (a) 1 and 2 only (b) 2 and 3 only  
 (c) 1 and 3 only (d) 1, 2 and 3
45. **The amount of drug delivered from a Transdermal patch depends on which of the following?**  
 1. Rate of drug partitioning between patch

and skin surface

2. Surface area of the patch
3. Affinity of the drug for the stratum corneum relative to its affinity for formulation matrix.

**Select the correct answer using the code given below:**

- (a) 1 and 2 only                      (b) 2 and 3 only  
(c) 1 and 3 only                      (d) 1, 2 and 3

**46. The indicator used in Mohr's method of estimation (Precipitation titrations) is:**

- (a) Methylene blue  
(b) Phenolphthalein  
(c) Potassium chromate  
(d) Potassium iodide

**47. Which one of the following statements is incorrect?**

- (a) Sodium carbonate or Sodium hydroxide can be used as primary standards in acid-base titrations  
(b) Only Sodium carbonate is used as primary standard in acid-base titrations  
(c) Only Sodium hydroxide is used as primary standard in acid-base titrations  
(d) Sodium hydroxide and Potassium hydroxide can be used as primary standards in acid base titrations

**48. Adrenaline is assayed by:**

- (a) Acidimetry  
(b) Gravimetry  
(c) Redox titration  
(d) Non-aqueous titration

**49. Artificial invert sugar in honey can be detected on the basis of the presence of which of the following?**

- (a) Contouring matter                      (b) Furfural  
(c) Traces of succinic acid                      (d) Enzymes

**50. Conjugated and non-conjugated systems can easily be differentiated by which one of the following spectroscopy techniques?**

- (a) UV                                      (b) IR  
(c) NMR                                      (d) Mass

**51. Diclofenac sodium IP is analysed by**

**which one of the following titrimetric methods?**

- (a) Potentiometry titration  
(b) Redox titration  
(c) Non aqueous titration  
(d) Conductometric titration

**52. Excess of Acetic anhydride should be avoided in 0.1 M acetous perchloric acid as:**

- (a) It may form non-explosive acetyl perchlorate  
(b) It may adversely react with primary and secondary amines  
(c) It may interfere with colour change of indicator  
(d) It may adversely affect the stability of solution

**53. For potentiometric end point detection in non-aqueous titration in acidic solvents, the recommended salt bridge between glass-calomel electrodes as per Indian Pharmacopeia consists of:**

- (a) Aqueous solution of potassium chloride  
(b) Saturated aqueous solution of potassium chloride  
(c) Methanolic solution of potassium chloride  
(d) 0.1 M lithium perchlorate in glacial acetic acid

**54. Which one of the following transducers is used in most of FT-IR (Fourier transform infrared) spectrophotometers?**

- (a) Bolometer                      (b) Thermocouple  
(c) Golay-pneumatic                      (d) Pyroelectric

**55. Ammonium sulphamate solution is used in Bratton-Marshall method of colorimetric estimation of sulphadiazine drugs:**

- (a) As coupling agent  
(b) To destroy excess nitrous acid  
(c) To maintain pH of reaction media  
(d) To stabilize the colour intensity

**56. Which one of the following is used as**

a catalyst in procedure for standardization of 0.1 M ceric ammonium sulphate solution IP?

- (a) Holmium oxide (b) Holmium perchlorate  
(c) Osmic acid (d) Ferroin

57. The normality of 0.05 M solution of potassium permanganate solution when used in strongly acidic media will be:

- (a) 0.05 N (b) 0.25 N  
(c) 0.15 N (d) 0.10 N

58. The A (1%, 1 cm) value of paracetamol is 715 at its  $\lambda_{\max}$  257nm. What will be the absorbance of 20 mg/litre of its solution at 257 nm in 1 cm cell?

- (a) 1.4300 (b) 0.7150  
(c) 0.3575 (d) 14.300

59. Mere increase in magnetic field strength in PMR spectroscopy will:

- (a) Increase the precessional frequency of proton  
(b) Decrease the precessional frequency of proton  
(c) Lower the energy difference between ground and excited spin levels of proton  
(d) Produce energy transition of spinning proton from ground to excited state

60. Following are the scales of measurement of chemical shift in NMR spectroscopy.

1. Frequency scale
2. Delta scale
3. Tau scale

Which of the above scales are independent of radiofrequency used in NMR spectrometer?

- (a) 1 only (b) 1 and 2  
(c) 3 only (d) 2 and 3

61. Which one of the following compounds is used as preservative to prevent the deterioration of various substances in the blood sample?

- (a) Sodium citrate (b) Sodium oxalate  
(c) Sodium fluoride (d) Sodium chloride

62. Which one of the solutions is used in the sterile blood collecting

containers?

- (a) Acid-citrate-dextrose  
(b) Alkali-citrate-glucose  
(c) Ammonia-citrate-dextrose  
(d) Carbonate-ammonia-dextrose

63. Dextran is used as:

- (a) Plasma expander  
(b) Coating agent in tablet  
(c) Indicator in titration  
(d) Buffering agent

64. Which of the following is NOT a conjugated protein?

- (a) Nucleoprotein (b) Albumin  
(c) Haemoprotein (d) Lipoprotein

65. The only immunoglobulin that crosses the transplacental barrier and provides maternal protection is:

- (a) IgM (b) IgG  
(c) IgD (d) IgA

66. The term 'False transmitter' is related to which one of the following drugs?

- (a) Hydralazine (b) Methyldopa  
(c) Sodium nitroprusside (d) Minoxidil

67. Polio virus belongs to which one of the following?

- (a) Retro virus (b) DNA virus  
(c) RNA virus (d) Elongated virus

68. BCG (Bacillus Calmette-Guerin) vaccine is:

1. live vaccine bearing an attenuated bovine strain of Mycobacterium tuberculosis
2. Used to enhance immunity non-specifically.
3. Contraindicated in tuberculin positive individuals.

Which of the statements given above are correct?

- (a) 1 and 2 only (b) 2 and 3 only  
(c) 1, 2 and 3 (d) 1 and 3 only

69. Deficiency of GABA causes which one of the following?

- (a) Mental depression (b) Parkinsonism  
(c) Epilepsy (d) Schizophrenia

70. Which one of the following statements in respect of the mechanism of action of Metronidazole is correct?

- (a) It damages the RNA  
(b) It damages the DNA  
(c) It inhibits the cell wall synthesis  
(d) It inhibits the protein synthesis
71. **Enteric coating of tablets can be made by using which one of the following compounds?**  
(a) Povidone  
(b) Hydroxy propyl methyl cellulose  
(c) Cellulose acetate phthalate  
(d) Carboxy methyl cellulose
72. **Which one of the following Schedules of Drugs and Cosmetics Rules, 1945 gives the requirements of factory premises, plant, and equipment etc. for manufacture of medical devices?**  
(a) Schedule – M  
(b) Schedule – M (I)  
(c) Schedule – M (II)  
(d) Schedule – M (III)
73. **Which one of the following activities is NOT true in the case of “Current Good Manufacturing Practice”?**  
(a) Maintenance of complaint files  
(b) Study of stability of finished drug products  
(c) Non requirement of equipment for the processing activity  
(d) Testing of product containers
74. **Which one of the following statements is correct for Karl fisher test?**  
(a) It is performed to detect the quality of a capsule  
(b) It is performed with iodine and sulphur dioxide in pyridine and methanol  
(c) It is performed with sodium thiosulphate and iodine in methanol  
(d) It is performed with NaOH and iodine in pyridine and ethanol
75. **Assay of Aspirin IP is based on which one of the following methods of titration?**  
(a) Acid base (b) Redox  
(c) Complexometric (d) Potentiometric
76. **Which one of the following is an universal detector in HPLC?**  
(a) PDA (b) UB  
(c) ELSD (d) RI
77. **Quantitative TLC can better be performed by which one of the following?**  
(a) HPLC (b) HPTLC  
(c) VLC (d) GC
78. **What are the chemicals involved in Libermann Burchard’s test?**  
(a) Acetic acid and conc.  $H_2SO_4$   
(b) Acetic anhydride and conc.  $H_2SO_4$   
(c) Acetic anhydride and conc. HCl  
(d) Acetic acid and conc. HCl
79. **What should be the density of an object with a volume of 15 ml and a mass of 42 grams?**  
(a) 0.552 g/ml (b) 650 g/ml  
(c) 2.80 g/ml (d) 0.820 g/ml
80. **The FDA requires that all clinical trial records be maintained and accessible at the trial sites for a minimum of:**  
(a) 1 year (b) 2 years  
(c) 3 years (d) 4 years
81. **Which one of the studies does not form part of clinical trials to provide unbiased reports of prevalence and incidence rates of adverse events?**  
(a) Randomization (b) Placebo control  
(c) Blinding (d) Quality variation
82. **Atropine is:**  
1. Obtained from Atropa belladonna  
2. Used in hypertension  
3. Tropane alkaloid  
4. Used in treatment of glaucoma  
**Which of the statements given above are correct?**  
(a) 1 and 2 (b) 1 and 3  
(c) 2 and 3 (d) 2 and 4
83. **Following therapeutic benefits are rightly paired with the respective inorganic molecule EXCEPT:**  
(a) Laxative: Magnesium  
(b) Vitamin  $B_{12}$  formation: Cobalt  
(c) Teeth health: Fluorine  
(d) Bone formation: Iron
84. **Silica gel used in chromatography**

- used to have different grades. Which one of the following contains no binders?
- (a) Silica gel G (b) Silica gel P  
(c) Silica gel H (d) Silica gel K
- 85. Consider the following statements about Inulin:**
1. It is a carbohydrate made up of 25–30 D-fructofuranose units
  2. It reduces Benedict's solution
  3. It is insoluble in water
- Which of the statements given above are correct?**
- (a) 1 and 3 only (b) 1, 2 and 3  
(c) 1 and 2 only (d) 2 and 3 only
- 86. A patient develops severe thrombocytopenia in response to treatment with unfractionated heparin and still requires parenteral anticoagulants. The patient is most likely to be treated with:**
- (a) Vitamin K<sub>2</sub> (b) Plasminogen  
(c) Lepirudin (d) Aprotinin
- 87. Which one of the following is NOT an indole alkaloid?**
- (a) Ergot (b) Reserpine  
(c) Vinca (d) Hyoscyamine
- 88. Pyrazinamide is used for the treatment of which one of the following diseases?**
- (a) AIDS (b) Malaria  
(c) Diabetes (d) Tuberculosis
- 89. Lysergic acid is the precursor for which one of the following products?**
- (a) Ergot (b) Quinine  
(c) Nicotine (d) Morphine
- 90. Which one of the following injectables is available in the form of dry powder?**
- (a) Benzyl penicillin injection  
(b) Insulin injection  
(c) Morphine injection  
(d) Amikacin injection
- 91. Which one of the following is a steroidal antibiotic?**
- (a) Fucidin (b) Clindamycin  
(c) Bacitracin (d) Chloramphenicol
- 92. In a prescription written by the medical doctors, subscription is the part, which contains direction to the:**
- (a) Medical Officer  
(b) Pharmacist  
(c) Patient  
(d) Health authority of the state
- 93. Who is the Chairman of the Drug Technical Advisory board?**
- (a) President of the Pharmacy Council of India  
(b) Director General of Health Services  
(c) Drug Controller General of India  
(d) Director of Central Drugs Laboratory
- 94. In the Drugs and Cosmetics Rules, 1945 the list of diseases or ailments, which a drug may not purport to prevent or cure or make claim to prevent or cure is mentioned in:**
- (a) Schedule J (b) Schedule P  
(c) Schedule Y (d) Schedule M
- 95. Which one of the following persons is NOT an Ex-officio member of Drugs Technical Advisory Board (DTAB)?**
- (a) Drug Controller General of India  
(b) Director Central Drug Research Institute  
(c) Director Indian Council for Medical Research (ICMR)  
(d) President Pharmacy Council of India
- 96. Approval for grant of license of drug testing facilities is issued in:**
- (a) Form No. – 39 (b) Form No. – 36  
(c) Form No. – 37 (d) Form No. – 38
- 97. The license for manufacture of cosmetics is issued in:**
- (a) Form No. – 31 (b) Form No. – 32  
(c) Form No. – 31 A (d) Form No. – 32A
- 98. The idealized drug release in an extended-release delivery system is possible, when the release follows which order of kinetics?**
- (a) Zero order kinetics  
(b) First order kinetics  
(c) Second order kinetics  
(d) Both zero and second order kinetics

99. **Methenamine is converted to formaldehyde at pH:**  
 (a) 7.0 (b) Above 7.5  
 (c) 6.5 (d) Less than 5.5
100. **Acetaminophen belongs to:**  
 (a) Class I Drug (High solubility and high permeability)  
 (b) Class II Drug (Low solubility and high permeability)  
 (c) Class III Drug (High solubility and low permeability)  
 (d) Class IV Drug (Low solubility and low permeability)
101. **The type of drug reaction which is caused by penicillin is:**  
 (a) Type II drug allergy  
 (b) Mediated by IgE  
 (c) Cell-mediated reaction  
 (d) Serum sickness
102. **Which one of the following is used as sclerosing agent?**  
 (a) Desmopressin (b) Polidocanol  
 (c) Fibrinogen (d) Menadione
103. **Which one of the following is NOT a drug as per Drugs & Cosmetics Act, 1940?**  
 (a) Antiseptics  
 (b) Empty capsules  
 (c) Mosquito repellent  
 (d) Carbonated oral drinks
104. **The loading dose is governed by:**  
 (a) Clearance  
 (b) Plasma concentration  
 (c) Volume of distribution  
 (d) Half life
105. **Which one of the following is a Phase-II drug metabolizing reaction?**  
 (a) Oxidation (b) Acetylation  
 (c) Hydrolysis (d) Reduction
106. **Which drug has higher first-pass metabolism in males in comparison with females?**  
 (a) Ketoconazole (b) Cimetidine  
 (c) Ethanol (d) Quinidine
107. **Good Laboratory Practice (GLP) certification in India is issued by:**  
 (a) Central Drug Standards and Control Organization (CDSCO), Government of India  
 (b) Department of Biotechnology (DBT), Government of India  
 (c) Department of Science and Technology (DST), Government of India  
 (d) National Accreditation Board for Testing and Calibration Laboratories (NABL), Government of India
108. **If a clearance and volume of distribution of a drug are 1.386 L/h and 80 L respectively, then what is the half-life?**  
 (a) 77 hour (b) 40 hour  
 (c) 59 hour (d) 85 hour
109. **Which one of the following is an antisecretory, antispasmodic and anticholinergic drug?**  
 (a) Cyclopentolate (b) Procyclidine  
 (c) Tropicamide (d) Propantheline
110. **Which one of the following drugs is an aromatase inhibitor?**  
 (a) Raloxifene (b) Letrozole  
 (c) Clomiphene (d) Mifepristone
111. **Which one of the following drugs has longest half-life?**  
 (a) Digitoxin (b) Doxycycline  
 (c) Digoxin (d) Phenobarbitone
112. **Which one of the following antimalarials is safest in pregnancy?**  
 (a) Artesunate (b) Chloroquine  
 (c) Primaquine (d) Artemether
113. **Which one of the following drugs has longest duration of action?**  
 (a) Sulfadiazine (b) Sparfloxacin  
 (c) Sulfamethoxazole (d) Sulfamethopyrazine
114. **When menthol and camphor are mixed together, they will form:**  
 (a) Positive mixture (b) Eutectic mixture  
 (c) Solid mixture (d) Colloidal solution
115. **A mixture of bees wax and carnauba wax is used in sugar coating process for:**  
 (a) Sealing (b) Colour coating  
 (c) Polishing (d) Sub-coating
116. **The Good Laboratory Practice (GLP) principle is based on:**

- (a) ICMR guidelines (b) Schedule 'Y'  
(c) OECD guidelines (d) WHO guidelines
- 117. The mechanism involved in the drug release from a non-eroding hydrophilic matrix is:**
- (a) Swelling and gelation of the matrix  
(b) Diffusion of drug through a semipermeable membrane  
(c) Coacervation  
(d) Passage of drug through pores in the matrix
- 118. The paddle over disk is an USP:**
- (a) Apparatus I (b) Apparatus II  
(c) Apparatus III (d) Apparatus V
- 119. Which one of the following is NOT a low molecular weight (LMW) heparin?**
- (a) Enoxaparin (b) Lepirudin  
(c) Reviparin (d) Parnaparin
- 120. Which one of the following is a direct thrombin inhibitor?**
- (a) Bivalirudin  
(b) Dalteparin  
(c) Heparin  
(d) Sodium tetradecyl sulfate
- 121. Fibrinolytics is NOT used in:**
- (a) Acute myocardial infarction  
(b) Deep vein thrombosis  
(c) Stroke  
(d) Hypertensive crisis
- 122. Which one of the following is a direct factor Xa inhibitor?**
- (a) Rivaroxaban  
(b) Phenindione  
(c) Ethyl biscoumacetate  
(d) Acenocoumarol
- 123. Recombinant Interleukin-2 is used in the treatment of:**
- (a) Renal cell carcinoma  
(b) Rheumatoid arthritis  
(c) Psoriasis  
(d) Superficial bladder carcinomas
- 124. The type of drug reaction which is caused by antipsychotic drug is:**
- (a) Type IV drug reaction  
(b) delayed type hypersensitivity  
(c) mediated by IgG and IgM antibodies  
(d) Stevens-Johnson syndrome
- 125. A drug is called a spurious drug if:**
- (a) It is imported from a country where it is approved  
(b) It has been substituted by another drug substance  
(c) It is manufactured by loan license by another company  
(d) The container resembles the product of another manufacturer
- 126. In gas chromatography, the basis of separation of the components is based on which of the following parameters?**
- (a) Conductivity (b) Partition coefficient  
(c) Molality (d) Molecular weight
- 127. Which one of the following is a related substance impurity of paracetamol I.P.?**
- (a) *p*-chlorophenol  
(b) Acetanilide  
(c) *o*-hydroxybenzoic acid  
(d) *p*-chloroacetanilide
- 128. Iodine value of an oil sample is the measure of:**
- (a) Mean molecular weight of fatty acids  
(b) Unsaturated fatty acids  
(c) Free fatty acids  
(d) Unsaponifiable matter
- 129. Allicin is a component present in which one of the following plants?**
- (a) Coriander (b) Garlic  
(c) Tulsi (d) Ashwagandha
- 130. The substance used for calibration of absorbance scale of UV-Vis spectrophotometer is:**
- (a) Holmium oxide  
(b) Potassium chromate  
(c) Potassium dichromate  
(d) Potassium chloride
- 131. Which of the following are input devices?**
1. Mouse 2. Touch screen  
3. Printer 4. Projector
- Select the correct answer using the code given below:**

- (a) 1 and 4 only (b) 1, 2 and 4  
(c) 1 and 2 only (d) 2, 3 and 4
- 132. Control unit is a part of:**  
1. CPU 2. ALU  
3. Input output 4. Memory unit  
**Select the correct answer using code given below:**  
(a) 2 only (b) 1 and 2  
(c) 3 and 4 (d) 1 only
- 133. Find out the synonym of the underlined word: No matter the size of your enterprise, technology has both tangible and intangible benefits.**  
(a) Understandable (b) Capable  
(c) Possible (d) Palpable
- 134. Find out the synonym of the underlined word: His agnostic viewpoint is summarized in this book.**  
(a) Irrelevant (b) Indecisive  
(c) Indecent (d) Uncertain
- 135. Find out the antonym of the underlined word: Their activities aimed at improving someone's status or increasing power within an organization.**  
(a) Impairing (b) Intriguing  
(c) Regressing (d) Regaining
- 136. Find out the antonym of the underlined word: We provide loans for improving public transport at nominal interest rates.**  
(a) Imperceptible (b) Quibbling  
(c) Actual (d) Substantial
- 137. Fill in the blank to complete the sentence: I wish I \_\_\_ harder.**  
(a) Am working  
(b) Had worked  
(c) Have been working  
(d) had been working
- 138. Fill in the blank to complete the sentence: I took my brother to the tailor \_\_\_ for a Jodhpur coat.**  
(a) Had him measured  
(b) Took his measure  
(c) Got the measure  
(d) Measured him up
- 139. A software which can automatically cause pop up and display advertisements in order to generate revenue, but not in malicious way, is called:**  
(a) Spyware (b) Firmware  
(c) virus (d) Adware
- 140. In a computer software development process, which one of the following is easy to understand?**  
(a) Program code (b) Algorithm  
(c) Machine code (d) None of these
- 141. Which one of the following is an operating system?**  
(a) Oracle log (b) Unix  
(c) MS-office 2007 (d) FORTRAN
- 142. Which of the following is NOT used as database management software?**  
(a) Oracle (b) MY-SQL  
(c) Ingress (d) Linux
- 143. Which one of the following memories is used to store data permanently?**  
(a) Primary memory (b) Secondary memory  
(c) Cache memory (d) Register
- 144. A collection of interlinked hypertext documents stored on computers all around the world is known as:**  
(a) Data Ware House (b) World Wide Web  
(c) Web Browser (d) World Wide Server
- 145. Which one of the following is NOT an example of an application program?**  
(a) Word processor  
(b) Antivirus software  
(c) Library management software  
(d) Debugger
- 146. Which one of the following errors is detected by the lexical analyser?**  
(a) Syntax errors (b) Logical errors  
(c) Semantic errors (d) Data errors
- 147. Consider the following sentence: This is one of the finest (P), if not the finest poem (Q), produced in recent years (R), No error (S). Which part (denoted by P, Q and R) of the above sentence has an error? If there is no error, mark it as S:**  
(a) P (b) Q (c) R (d) S
- 148. Consider the following sentence: The committee (P), comprises of the president (Q), the treasurer and the**

secretary (R). No error (S). Which part denoted (by P, Q and R) of the above sentence has an error? If there is no error, mark it as S:

(a) P (b) Q (c) R (d) S

149. Consider the following sentence:

The teacher was angry (P), when he found that (Q), none of the two boys had done their homework (R). No error (S). Which part denoted (by P, Q and R) of the above sentence has an error? If there is no error, mark it as S:

(a) P (b) Q (c) R (d) S

150. Read the following passage and answer the item that follows. Your answer to this passage should be based on the passage only.

There are a lot of things which are necessary before a person gets the chance to think freely. For instance, he must have security; nobody can think about things, if he is afraid of being robbed or murdered at any moment. Also he

must have leisure to think; and he won't have that if he has to give all his attention to getting food to eat and clothes to wear, that is to say, he spends all his time earning his living. And he must have other people to talk to, so that you may say that security, leisure and society, which are all necessary for free thinking, are necessary for civilization.

On the basis of the above passage, the following assumptions have been made:

1. A person should have security in order to think in a free and relaxed manner.
2. A society cannot be called 'civilized' if there is no leisure and security.
3. A person who is busily engaged in social services has no leisure to think freely.

Which of the above assumptions is/are valid?

- (a) 1 only (b) 2 and 3 only  
(c) 1 and 2 only (d) 1, 2 and 3

## ANSWER KEY

1-c	2-c	3-d	4-b	5-d	6-d	7-b	8-a	9-c	10-c
11-c	12-a	13-b	14-b	15-a	16-a	17-d	18-b	19-d	20-b
21-b	22-c	23-d	24-c	25-d	26-d	27-c	28-b,d	29-c	30-b
31-a	32-b	33-a	34-a	35-b	36-a	37-a	38-b	39-d	40-a
41-d	42-c	43-b	44-d	45-d	46-c	47-b	48-d	49-b	50-a
51-c	52-b	53-b	54-d	55-b	56-c	57-b	58-d	59-a	60-d
61-a	62-a	63-a	64-b	65-b	66-b	67-c	68-a	69-c	70-b
71-c	72-d	73-c	74-b	75-a	76-d	77-b	78-b	79-c	80-c
81-b	82-b	83-d	84-c	85-a	86-c	87-d	88-d	89-a	90-a
91-a	92-b	93-b	94-a	95-c	96-a	97-d	98-a	99-d	100-a
101-b	102-b	103-b	104-c	105-b	106-a	107-c	108-b	109-d	110-b
111-c	112-b	113-d	114-b	115-c	116-c	117-b	118-d	119-b	120-a
121-d	122-a	123-a	124-b	125-d	126-b	127-d	128-b	129-b	130-c
131-c	132-d	133-d	134-b	135-a	136-d	137-b	138-b	139-d	140-b
141-b	142-d	143-b	144-b	145-d	146-a	147-b	148-b	149-c	150-c