

**COMBINED TECHNICAL SERVICES EXAMINATION  
(NON-INTERVIEW POSTS)  
COMPUTER BASED TEST  
PAPER – II – PHARMACY / PHARMACEUTICAL  
SCIENCES (DEGREE STANDARD)  
(CODE: 429)**

1. Single, simple and minimum medicine one at a time is one among the principle in  
(A) Ayurveda (B) Siddha  
(C) Unani  (D) Homeopathy  
(E) Answer not known
  
2. The crude drug handled by Dr. Hahnemann for the "law of proving" is  
(A) Ashoka (B)  Cinchona  
(C) Dioscorea (D) Podophyllum  
(E) Answer not known
  
3. For the treatment, homeopathy tries to match  
(A) Drug picture to patient picture  
 (B) Drug picture to symptom picture  
(C) Drug picture to chemical structure  
(D) Drug picture to related drugs picture  
(E) Answer not known
  
4. The spectroscopy used to identify the functional group of the compounds is  
(A) Ultra violet-visible  
 (B) Infrared  
(C) Mass  
(D) Nuclear magnetic resonance  
(E) Answer not known

5. The temperature and pressure at which carbon dioxide behaves as super critical fluid is
- (A) 25.06°C and 62.83 bar pressure
  - (B) 31.06°C and 73.83 bar pressure
  - (C) 41.06°C and 65.02 bar pressure
  - (D) 15.06°C and 16.05 bar pressure
  - (E) Answer not known
6. Counter current extraction is performed by using \_\_\_\_\_ apparatus.
- (A) Soxhlet
  - (C) Craig
  - (E) Answer not known
  - (B) Clewenger's
  - (D) Percolator
7. Menthol is separated from mentha oil by
- (A) Heating
  - (C) Sublimation
  - (E) Answer not known
  - (B) Distillation
  - (D) Cooling
8. Citral is chemically
- (A) Sesquiterpene aldehyde
  - (C) Monoterpene aldehyde
  - (E) Answer not known
  - (B) Diterpene aldehyde
  - (D) Monoterpene ketone
9. Rutin is isolated by using
- (A) Roots and rhizomes
  - (C) Bark
  - (E) Answer not known
  - (B) Fresh leaves and flowers
  - (D) Fruits

10. Caffeine is identified by \_\_\_\_\_ test.
- (A) Vitali-morin (B) Ninhydrine  
(C) Baljet  (D) Murexide  
(E) Answer not known
11. The drug which belongs to asteraceae family is
- (A) Atropa  (B) Artemisia  
(C) Podophyllum (D) Rutin  
(E) Answer not known
12. Podophyllin is a
- (A) Alkaloid (B) Flavanoid  
(C) Glycoside  (D) Resin  
(E) Answer not known
13. The aglycone part of sennoside 'A' is
- (A) Aloe-emodin dianthrone (B) Isoprenoids  
(C) Aldehyde  (D) Rhein dianthrone  
(E) Answer not known
14. The pungency of ginger is due to the presence of
- (A) Gingerol (B) Zingiberene  
(C) Shogaol (D) Curcumin  
(E) Answer not known



15. Fresh rhizomes of ginger does not contain
- (A) Gingerol (B) Zingiberene  
 (C) Shogaol (D) Gingerdiols  
(E) Answer not known
16. Zingiberene is chemically
- (A) Sesquiterpene (B) Monoterpene  
(C) Steroid (D) Diterpene  
(E) Answer not known
17. Dioscin on hydrolysis gives
- (A) Diosgenin + 3 glucose + 1 rhamnose  
 (B) Diosgenin + 1 glucose + 2 rhamnose  
(C) Diosgenin + 2 glucose + 1 rhamnose  
(D) Diosgenin + 3 glucose  
(E) Answer not known
18. Gold beater's skin test is used for the identification of
- (A) Glycosides  (B) Tannins  
(C) Alkaloids (D) Flavonoids  
(E) Answer not known
19. The matchstick dipped in the tannins containing plant extract, heated after dipping in hydrochloric acid gives pink colour due to the formation of
- (A) Phloroglucinol (B) Catechol  
(C) Cinnamic acid (D) Benzoic acid  
(E) Answer not known

20. Volatile oil containing bark drug is
- (A) Cinchona (B) Kurchi  
 (C) Cinnamon (D) Clove  
(E) Answer not known
21. Shikimic acid acts as a intermediate for the bio-synthesis of
- (A) Aromatic amino acids (B) Isoprenoids  
(C) Fatty acids (D) Steroids  
(E) Answer not known
22. Amino acids derived from Shikimic acid pathway does not include
- (A) L-Tyrosine (B) L-Tryptophan  
(C) L-Phenyl alanine  (D) L-Proline  
(E) Answer not known
23. Dimethyl Allyl Pyrophosphate is an important intermediate in the bio-synthesis of
- (A) Carbohydrates (B) Proteins  
(C) Fats  (D) Terpenoids  
(E) Answer not known
24. Aromatic amino acids are biosynthesised from \_\_\_\_\_ pathway.
- (A) Isoprene pathway  
(B) Acetate hypothesis  
 (C) Shikimic acid pathway  
(D) Fatty acid synthesis pathway  
(E) Answer not known

25. Packed Cell Volume (PCV) is used to measure which of the following in Plant Cell Culture?
- (A) Cell growth in suspension culture
  - (B) Density of the callus culture
  - (C) Porosity of the callus culture
  - (D) Bulk density of the callus culture
  - (E) Answer not known
26. The enzyme used to digest the cell wall of protoplast in protoplast culture is
- (A) Cellulase
  - (B) Pepsin
  - (C) Bromelain
  - (D) Inulase
  - (E) Answer not known
27. The major source of carbon in Plant Tissue Culture medium is
- (A) Fructose
  - (B) Sucrose
  - (C) Maltose
  - (D) Rhamnose
  - (E) Answer not known
28. The most commonly used surface sterilizing agent of explant used in Plant Tissue Culture is
- (A) Carbon hypochlorite
  - (B) Boric acid
  - (C) Pyridoxine hypochlorite
  - (D) Sodium hypochlorite
  - (E) Answer not known

29. \_\_\_\_\_ is not a growth regulator.
- (A) Lignin (B) Auxins  
(C) Gibberellins (D) Cytokinins  
(E) Answer not known
30. The plant growth regulator Benzyl Adenine is an example of
- (A) Auxin (B) Cytokinin  
(C) Gibberelin (D) Abscisic acid  
(E) Answer not known
31. Example of Synthetic 'AUXIN' used as plant growth regulator is
- (A) Indole Acetic acid (B) Cinnamic acid  
(C) Gibberellic acid (D) Indole - 3 - Butyric Acid  
(E) Answer not known
32. \_\_\_\_\_ is an organic compound synthesized in one part of a plant and translocated to another part where, in very very low concentrations, it causes a physiological response.
- (A) Sucrose (B)  $K^+$  and  $Ca^{2+}$   
(C) Enzymes (D) Plant Hormones  
(E) Answer not known
33. The type of calcium oxalate crystals present in the crude drug Belladonna is
- (A) Prisms (B) Acicular  
(C) Rosettes (D) Micro Sphenoidal  
(E) Answer not known

34. \_\_\_\_\_ chromatography is also known as size exclusion chromatography.
- (A) Paper chromatography
  - (B) Thin Layer chromatography
  - (C) Gel Permeation chromatography
  - (D) High performance liquid chromatography
  - (E) Answer not known
35. Presence of Epiphytes such as Mosses and Lichens occurring in unusual amounts on Bark of Cinchona is \_\_\_\_\_ type of Adulteration.
- (A) Substitution of inferior commercial variety
  - (B) Addition of worthless heavy material
  - (C) Presence of adventitious matter in excess
  - (D) Addition of synthetic principles
  - (E) Answer not known
36. Paraffin Wax is coloured yellow and substituted for Bees Wax. This is \_\_\_\_\_ type of adulteration.
- (A) Substitution with substandard commercial variety
  - (B) Substitution with superficially similar inferior drugs
  - (C) Substitution with artificially manufactured substances
  - (D) Substitution with exhausted Drugs
  - (E) Answer not known

37. \_\_\_\_\_ taste of Capsicum and Ginger are important criteria for organoleptic evaluation of these drugs.
- (A) Sweet (B) Bitter  
(C) Pungent (D) Bland  
(E) Answer not known
38. \_\_\_\_\_ type of stomata is present in SENNA.
- (A) Diacytic (B) Paracytic  
(C) Anisocytic (D) Actinocytic  
(E) Answer not known
39. The crude drug 'CINCHONA' can be classified as \_\_\_\_\_, based on its Pharmacological activity.
- (A) Anti - amoebic (B) Anti - tussive  
(C) Anti - hypertensive (D) Anti - malarial  
(E) Answer not known
40. The Pharma copoeia in which the crude drugs are arranged according to their LATIN titles is
- (A) British Pharmacopoeia  
(B) United States Pharmacopoeia  
(C) British Pharmaceutical codex  
(D) European Pharmacopoeia  
(E) Answer not known

41. All of them are Antiproliferative drugs used as cytotoxic immuno suppressants except
- (A) Methotrexate (B) Azothioprine  
(C) Cyclophosphamide (D) Adalimumab  
(E) Answer not known
42. Sirolimus an Immuno suppressant acts by
- (A) Calcineurin Inhibitor (B) m - TOR Inhibition  
(C) Anti proliferative (D) TNF Inhibitor  
(E) Answer not known
43. Cough centre suppressants are all of the following except
- (A) Codeine (B) Dextromethorphan  
(C) Diphenhydramine (D) Salbutamol  
(E) Answer not known
44. Drug of choice for the treatment of acute asthmatic attack is
- (A) Leucotriene Antagonist  
(B) Anti cholinergic  
(C) Lipoxygenase inhibitor  
(D)  $\beta_2$  agonist  
(E) Answer not known
45. Diuretics that can be used in Renal failure is
- (A) Chlorthalidone (B) Furosemide  
(C) Chlorthalidone (D) Mannitol  
(E) Answer not known

46. Drug of choice for Neurogenic diabetes insipidus is
- (A) Vasopressin (B) Pralipressin  
(C) Desmopressin (D) Terlipressin  
(E) Answer not known
47. Digitalis acts in CHF by
- (A)  $Na^+K^+$  ATPase stimulation  
(B)  $Na^+K^+$  ATPase Inhibition  
(C) Blockade of Calcium channel  
(D) Increasing the refractory period of A-V node  
(E) Answer not known
48. Telmisartan lowers blood pressure by
- (A) Inhibiting formation of Angiotensin I to Angiotensin II  
(B) Inhibiting conversion of renin to Angiotensin  
(C) Blocking  $AT_1$  receptor  
(D) Interfering with the degradation of brady kinin  
(E) Answer not known
49. Selective antagonist for cholinergic  $M_1$  receptor
- (A) Pirenzepine (B) Oxotremorine  
(C) Metha choline (D) Bethanechol  
(E) Answer not known



50. Sympathomimetic drug

- (A) Salbutamol
- (B) Propranolol
- (C) Labetalol
- (D) Atenolol
- (E) Answer not known

51. Cardio selective ( $\beta_1$ ) adrenergic blocking drug

- (A) Metoprolol
- (B) Omeprazole
- (C) Carbachol
- (D) Bethanechol
- (E) Answer not known

52. Naloxone is a

- (A) Adrenergic agonist
- (B) Opioid agonist
- (C) Opioid antagonist
- (D) Adrenergic antagonist
- (E) Answer not known

53. Non benzodiazepine hypnotic

- (A) Chlordiazepoxide
- (B) Clonazepam
- (C) Zopiclone
- (D) Alprazolam
- (E) Answer not known

54. Atypical antipsychotic drug

- (A) Olanzapine
- (B) Ribavirin
- (C) Lamivudine
- (D) Telbivudine
- (E) Answer not known

55. Dissociative anaesthesia

- (A) Ketotifen  
(B) Ketamine  
(C) Ketoconazole  
(D) Ketoprofen  
(E) Answer not known

56. Idiosyncrasy refers to

- (A) Genetically determined abnormal reactivity to a drug  
(B) Age determined abnormal reactivity to a drug  
(C) Sex determined abnormal reactivity to a drug  
(D) Food determined abnormal reactivity to a drug  
(E) Answer not known

57. The drug diffuses across the membrane in the direction of its concentration gradient (high to low), the membrane playing no active role in the process is called

- (A) Passive diffusion  
(B) Active transport  
(C) Vesicular transport  
(D) Endocytosis  
(E) Answer not known

58. \_\_\_\_\_ means chemical alteration of the drug in the body.

- (A) Cumulation  
(B) Biotransformation  
(C) Concentration  
(D) Dilution  
(E) Answer not known

59. In biotransformation reactions, phase II reaction also known as
- (A) Non synthetic reaction                      (B) Functionalization reaction  
 (C) Synthetic reaction                              (D) Hydrolysis  
 (E) Answer not known
60. \_\_\_\_\_ has been defined by the WHO (2002) as the 'Science and activities relating to the detection, assessment, understanding and prevention of adverse effects or any other drug related problems'
- (A) Iatrogenic     (B) Pharmacovigilance  
 (C) Placebo    (D) Carcinogenicity  
 (E) Answer not known
61. When a ray of light passes from one medium into another medium it undergoes?
- (A) Absorption    (B) Emission  
 (C) Refraction    (D) Rotation  
 (E) Answer not known
62. Beer – Lambert law is given by the expression
- (A)  $\log \frac{I_o}{I_T} = abc$     (B)  $\log \frac{I_T}{I_o} = \log T$   
 (C)  $\log \frac{I_T}{I_o} = \log \%T$     (D)  $\log \frac{I_T}{I_o} = \frac{\log \%T}{K}$   
 (E) Answer not known

63. The most intense peak in the mass spectrum is the
- (A) Parent peak (B) Molecular ion peak  
(C) Base peak (D) Metastable peak  
(E) Answer not known
64. The parameter \_\_\_\_\_ is measured in differential thermal analysis.
- (A)  $\Delta T$  (B)  $dm/dt$   
(C) Mass (D)  $dH.dt$   
(E) Answer not known
65. The radiation source in IR spectroscopy is
- (A) Nernst Glower (B) Xenon discharge lamp  
(C) Deuterium lamp (D) Hydrogen discharge lamp  
(E) Answer not known
66. \_\_\_\_\_ reduces the fluorescence intensity of riboflavine by static quenching.
- (A) Quinine (B) Caffeine  
(C) Phenol (D) Citric acid  
(E) Answer not known
67. In Gas – Solid chromatography the principle involved is
- (A) Adsorption (B) Absorption  
(C) Partition (D) Transfusion  
(E) Answer not known

68. The extent of exchange with  $H^+$  ions among cations decreases in the following order

(A)  $Na^+ > Ca^{2+} > Al^{3+} > Th^{4+}$

(B)  $Al^{3+} > Th^{4+} > Ca^{2+} > Na^+$

(C)  $Th^{4+} > Al^{3+} > Ca^{2+} > Na^+$

(D)  $Ca^{2+} > Th^{4+} > Al^{3+} > Na^+$

(E) Answer not known

69. The efficiency of a chromatographic column is measured by

(A) Column material

(B) No. of theoretical plates

(C) Mobile phase used

(D) Solvents used

(E) Answer not known

70. The order of electron energy produced with various carrier gases is

(A) Carbondioxide > Argon > Nitrogen

(B) Carbondioxide > Nitrogen > Argon

(C) Nitrogen > Argon > Carbondioxide

(D) Argon > Nitrogen > Carbondioxide

(E) Answer not known

71. The reduction in zeta potential is observed with the increasing concentration of

(A) Acid

(B) Base

(C) Electrolytes

(D) Water

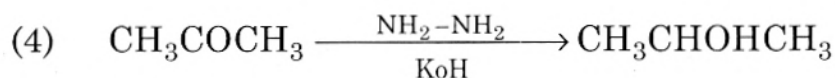
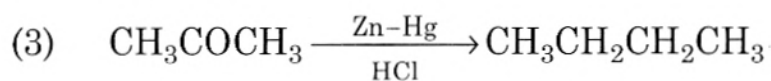
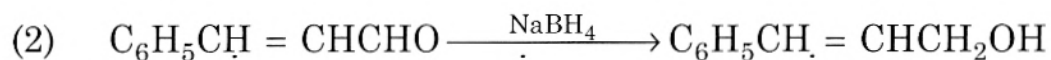
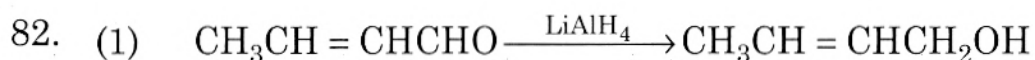
(E) Answer not known

72. Silica gel GF<sub>254</sub> is the coating material used in the TLC, the letter 'G' denotes presence of
- (A) Zinc oxide (B) Zinc stearate  
(C) Zinc silicate (D) Zinc sulphate  
(E) Answer not known
73. Strong anion exchange resins contains
- (A) Primary amine group  
(B) Secondary amine group  
(C) Tertiary amine group  
(D) Quaternary ammonium group  
(E) Answer not known
74. The masking agent for aluminium is
- (A) Ammonium fluoride (B) Dimercaprol  
(C) Thioglycerol (D) Ascorbic acid  
(E) Answer not known
75. Tetrabutyl ammonium hydroxide is standardised using
- (A) Sodium bicarbonate  
(B) Oxalic acid  
(C) Potassium hydrogen phthalate  
(D) Benzoic acid  
(E) Answer not known

76. \_\_\_\_\_ is an aprotic solvent.
- (A) Toluene (B) HCl  
(C) H<sub>2</sub>SO<sub>4</sub> (D) Acetone  
(E) Answer not known
77. An example of self indicator is
- (A) Thymol blue (B) Methyl orange  
(C) Potassium permanganate (D) Crystal violet  
(E) Answer not known
78. \_\_\_\_\_ is a monodentate ligand.
- (A) NH<sub>3</sub> (B) Ethylene diamine  
(C) Nitrilo triacetic acid (D) EDTA  
(E) Answer not known
79. \_\_\_\_\_ is added in the titration of halogen acid salt of bases with acetous perchloric acid.
- (A) Sodium chloride (B) Sodium acetate  
(C) Mercuric acetate (D) Potassium chloride  
(E) Answer not known
80. Ethylene Diamine Tetra – Acetic acid forms complexes with most cations in a \_\_\_\_\_ ratio.
- (A) 1 : 1 (B) 1 : 2  
(C) 1 : 3 (D) 1 : 4  
(E) Answer not known

81. The catalyst in clemmensen reduction is

- (A) Zinc mercury amalgam
- (B) Magnesium mercury amalgam
- (C) Iron mercury amalgam
- (D) Aluminium mercury amalgam
- (E) Answer not known



- (A) Only (1) is correct
- (B) Only (2) is correct
- (C) Both (1) and (2) are correct
- (D) Both (3) and (4) are correct
- (E) Answer not known

83. The formation of N-Substituted amide by reaction of a ketoxime with concentrated sulphuric acid is known as

- (A) Curtius rearrangement
- (B) Beckmann rearrangement
- (C) Schmidt rearrangement
- (D) Pechmann rearrangement
- (E) Answer not known



84. Name the reaction in which reduction of carbonyl compounds to the corresponding methylene compounds uses amalgamated zinc and hydrogen chloride.

- (A) Clemmensen reduction                      (B) Meerwein reduction  
(C) Ponndorf reduction                      (D) Verley reduction  
(E) Answer not known

85. Lithium aluminium hydride, reduces unsaturated groups except

- (A)  $C = O$     (B)  $C \equiv N$   
(C)  $N = O$      (D)  $C = C$   
(E) Answer not known

86. Any necessary correction in a titration is corrected by

- (A) Acid determination                      (B) Base determination  
 (C) Blank determination                      (D) Back determination  
(E) Answer not known

87. The following zinc compound is used as Emetic and Astringent

- (A) Zinc stearate                                       (B)  $ZnSO_4 \cdot 7H_2O$   
(C)  $ZnCl_2 \cdot 5H_2O$                                       (D)  $ZnO \cdot 1H_2O$   
(E) Answer not known

88. Mouth washes contains following inorganic compounds for its property.

- |               |                                    |
|---------------|------------------------------------|
| (a) $ZnSO_4$  | 1. Antacid                         |
| (b) $ZnCl_2$  | 2. Mild antiseptic                 |
| (c) $KMnO_4$  | 3. Deodorant and desensitizing     |
| (d) $NaHCO_3$ | 4. Anti – infective and Astringent |

- |   | (a)              | (b) | (c) | (d) |
|---|------------------|-----|-----|-----|
| (A)                                     | 4                | 1   | 2   | 3   |
| (B)                                     | 3                | 4   | 1   | 2   |
| <input checked="" type="checkbox"/> (C) | 2                | 3   | 4   | 1   |
| (D)                                     | 1                | 2   | 3   | 4   |
| (E)                                     | Answer not known |     |     |     |

89. Titanium dioxide is assayed by titrating against

- |   |                              |
|---|------------------------------|
| (A) Sulphuric acid  | (B) Ferric ammonium sulphate |
| <input checked="" type="checkbox"/> (C) Ferric ammonium nitrate | (D) Sodium hydroxide         |
| (E) Answer not known  |                              |

90. Ammonium chloride is assayed by

- |   |
|---|
| (A) Acid – base titration                                       |
| (B) Potentiometric method                                       |
| (C) Volhard method  |
| <input checked="" type="checkbox"/> (D) Modified volhard method |
| (E) Answer not known  |

91. The molecular formulae for talc is
- (A)  $3\text{MgO} \cdot \text{SiO}_2 \cdot 4\text{H}_2\text{O}$  (B)  $4\text{MgO} \cdot 3\text{SiO}_2$   
(C)  $\text{MgCO}_3 \cdot 4\text{SiO}_2 \cdot \text{H}_2\text{O}$  (D)  $\text{Mg}_6(\text{Si}_2\text{O}_5)_5(\text{OH})_4$   
(E) Answer not known
92. In limit test for chloride the opalescence produced is due to formation of
- (A) Silver nitrate (B) Silver chloride  
(C) Silver sulphate (D) Silver iodide  
(E) Answer not known
93. Thioglycollic acid is added in the limit test for
- (A) Sulphate (B) Chloride  
(C) Iron (D) Arsenic  
(E) Answer not known
94. The number of significant figures in 0.00247 is
- (A) 6 (B) 5  
(C) 3 (D) 2  
(E) Answer not known
95. In the limit test for arsenic, yellow stain is produced by the reaction of arsine with
- (A) Stannous chloride (B) Magnesium chloride  
(C) Strontium chloride (D) Mercuric chloride  
(E) Answer not known

96. Alpha particles are chemically

- (A)  ${}^4_2\text{He}^{2+}$  (B)  ${}^2_1\text{He}^{2+}$   
(C)  ${}^3_1\text{He}^{2+}$  (D)  ${}^4_1\text{He}^{2+}$   
(E) Answer not known

97. Characteristic nature of Radio active rays (Match):

- |              |  |
|--------------|--|
| (a) $\alpha$ | 1. More penetrating, velocity as same as light |
| (b) $\beta$  | 2. High velocity and low penetrating           |
| (c) $\gamma$ | 3. Shorter and highly penetrating              |

- |     | (a)              | (b) | (c) |
|-----|------------------|-----|-----|
| (A) | 3                | 2   | 1   |
| (B) | 2                | 1   | 3   |
| (C) | 2                | 3   | 1   |
| (D) | 3                | 1   | 2   |
| (E) | Answer not known |     |     |

98.  ${}^{79}\text{Br}$  and  ${}^{81}\text{Br}$  are

- (1) Isotopes  
(2) Isobars  
(3) Isotones  
(4) Isotherms  
(A) Only (1) is correct (B) Both (1) and (2) are correct  
(C) Only (3) is correct (D) Only (4) is correct  
(E) Answer not known



104. The chairman of the drugs technical advisory board is
- (A) The Director, Central Drug Laboratory Kolkata
  - (B) The Drugs Controller of India
  - (C) The President, Pharmacy Council of India
  - (D) The Director General of Health Services
  - (E) Answer not known
105. The objective of drugs and magic remedies act is
- (A) To prohibit the advertisements for certain purpose of remedies
  - (B) To prohibit the advertisements for colouring substances
  - (C) To prohibit the use of drugs in pharmacy
  - (D) To prohibit the import of drugs
  - (E) Answer not known
106. The period of withhold of consignment containing documents carrying advertisement is
- (A) One month
  - (B) Two months
  - (C) One week
  - (D) Two weeks
  - (E) Answer not known
107. Advertisements sent confidentially to RMP (Registered Medical Practitioner) should carry the words in top except.
- (A) For the use of only clinical pharmacist
  - (B) For the use only of registered medical practitioner
  - (C) For the use only in hospital
  - (D) For the use only in hospital laboratory
  - (E) Answer not known

108. The price of drugs can be launched by
- (A) Drugs inspector
  - (B) Manufacturer
  - (C) National Price Control Authority of India
  - (D) Seller
  - (E) Answer not known
109. The medicine available in the National List of Essential Medicine 2015 (NLEM) was deleted in NLEM 2022.
- (A) Ivermectin Tablet
  - (B) Dimercaprol injection
  - (C) Cefuroxime injection
  - (D) Amikacin injection
  - (E) Answer not known
110. The price fixed by the government for the scheduled formulation is
- (A) Guaranteed price
  - (B) Fixed price
  - (C) Ceiling price
  - (D) Existing price
  - (E) Answer not known
111. These are psychotropic substances except
- (A) Psilocybine
  - (B) Quinine
  - (C) Phencyclidine
  - (D) Pentazocine
  - (E) Answer not known





116. State Pharmacy Council should have the following number of elected members.

- (A) Six
- (B) Five
- (C) Nine
- (D) Seven
- (E) Answer not known

117. The total number of chapter in Pharmacy Act, 1948

- (A) 7
- (B) 6
- (C) 5
- (D) 3
- (E) Answer not known

118. Ex officio member of pharmacy council of India is

- (A) President Pharmacy Council of India
- (B) President Medical Council of India
- (C) The Director, Central Research Institute
- (D) The Director of the Central Drugs Laboratory
- (E) Answer not known

119. Which is used in treatment lead poisoning ?

- (A) Pralidoxine
- (B) Calcium disodium edetate
- (C) Atropine
- (D) Pencillamine
- (E) Answer not known

120. The following drug which is also known as British Anti-Lewisite (BAL)?

- (A) Dimercaprol (B) Succimer  
(C) EDTA (D) D-Pencillamine  
(E) Answer not known

121. Which cephalosporin is used in the treatment of Multiresistant typhoid infection?

- (A) Cephalexin (B) Ceftriaxone  
(C) Cefepime (D) Ceftaroline  
(E) Answer not known

122. The drug filgrastim which belongs to following one of the factor

- (A) granulocyte-colony stimulating factor  
(B) granulocyte-macrophage colony stimulating factor  
(C) Colony stimulating factor  
(D) Macrophage colony stimulating factor  
(E) Answer not known

123. Drugs which is used in the treatment of Kaposi's Sarcoma

- (A) Vincristine (B) Mitoxantrone  
(C) Vinblastine (D) Epirubicin  
(E) Answer not known

124. This is the only protease inhibitors fixed dose combination used for the treatment of HIV-1 and HIV-2 infections
- (A)  Lopinavir + Ritonavir                      (B) Nelfinavir + Ritonavir  
(C) Saquinavir + Lopinavir                      (D) Indinavir + Lopinavir  
(E) Answer not known
125. The following one of the drug which belongs to beta lactamase inhibitor
- (A) Sulbactam    (B) Agobactum  
(C) Salicylic acid                                      (D)  Clavulanic acid  
(E) Answer not known
126. Which drug used as a highly sedative antihistaminics in pre anaesthetic medication?
- (A)  Promethazine                                      (B) Chlorpheniramine  
(C) diphenhydramine                                      (D) dimenhydrinate  
(E) Answer not known
127. The drug which has H<sub>1</sub> receptor antagonist with mast cell stabilising properties
- (A) Cromolyn sodium                                      (B) Nedocromil Sodium  
(C)  Ketotifen fumarate                                      (D) Tiprolisant  
(E) Answer not known
128. Bradykinin is a \_\_\_\_\_ peptide.
- (A)  nonpeptide    (B) decapeptide  
(C) undecapeptide                                      (D) polypeptide  
(E) Answer not known

129. Selective COX-2 inhibitors (>50 fold COX<sub>2</sub> selective)
- (A) Nimesulide (B) Rofecoxib  
(C) Indomethacin (D) Meloxicam  
(E) Answer not known
130. The drug which is commonly used first choice DMARDs (Disease Modifying Anti Rheumatoid Drugs)
- (A) Cyclosporine (B) Methotrexate  
(C) Azathioprine (D) Leflunomide  
(E) Answer not known
131. Mechanism of action of pioglitazone act as agonist to a nuclear receptor called
- (A) Sodium-Glucose cotransporter -2 inhibitors  
(B) Glucagon like peptide - 1 receptor agonist  
(C) Peroxisome proliferator activated receptor-gamma agonist  
(D) Dipeptidyl peptidase - 4 inhibitors  
(E) Answer not known
132. Which is used in the treatment of erectile dysfunction?
- (A) Sildenafil (B) Flutamide  
(C) Finasteride (D) Dutasteride  
(E) Answer not known

133. Drug which inhibits thyroid hormone synthesis is
- (A) Thiocyanates (B) Organic iodide  
(C) Nitrates (D) Propylthiouracil  
(E) Answer not known
134. Gigantism refers to
- (A) Decreased production of growth hormone  
(B) Excess production of growth hormone  
(C) Decreased production of GHRH  
(D) Excess production of GHRH  
(E) Answer not known
135. The drug which is being used to help in detection of metastatic differentiated thyroid carcinoma
- (A) Somapacitan (B) Somatropin  
(C) Thyrotropin alpha (D) Protirelin  
(E) Answer not known
136. This drug belongs to Gastric acid neutralizers (Antacids) among drugs for peptic ulcer
- (A) Cimetidine (B) Pirenzepine  
(C) Omeprazole (D) Sodium Citrate  
(E) Answer not known

137. How the purgatives emulsifies the colonic content and increase the penetration of water in to the faces?

- (A) By anionic detergent action      (B) By cationic detergent action  
(C) Increase peristalsis                (D) Decrease peristalsis  
(E) Answer not known

138. Drug which produce milder action, elimination of soft but formed stools

- (A) Purgative                                (B) Laxative  
(C) Cathartic                                (D) Stimulant purgative  
(E) Answer not known

139. The hydrophobic character of drug is crucial to which of the following

- (A) Molecular volume  
(B) How easily it crosses cell membrane  
(C) Molecular size  
(D) Atomic number  
(E) Answer not known

140. Which of the following is a measure of volume occupied by an atom or group of atoms?

- (A)  $\log P$                                       (B) Molar refractivity  
(C) Tafts Steric factor                      (D) Hammett constant  
(E) Answer not known

141. Which of the following parameter describe drug's ionization or polarity?
- (A) Hydrophobic parameter       (B) Electronic parameter  
(C) Stearic parameter          (D) Hydrophilic parameter  
(E) Answer not known
142. The statistical parameter which is a measure of how well physico-chemical parameter in the QSAR equation explain the observed variance in activity
- (A) Correlation coefficient      (B) Slope of the line  
(C) Standard deviation          (D) Root mean square value  
(E) Answer not known
143. A mathematical equation that relates a variety of physico-chemical parameters to biological activity for a series of related structures
- (A) Craig plot                      (B) Topliss scheme  
 (C) Hansch equation              (D) Free Wilson approach  
(E) Answer not known
144. The only potential muscarinic agonist and totally devoid of Nicotinic activity containing Imidazole nucleus is
- (A) Pilocarpine                      (B) Methacholine  
(C) Carbachol                      (D) Bethanechol  
(E) Answer not known

145. Identify the  $\beta_2$  agonist – direct acting sympathomimetic agent from the following drugs:

- (A) Prazosin (B) Phenylephrine  
(C) Salbutamol (D) Tolazoline  
(E) Answer not known

146. Which of the following barbiturate show anti convulsant property?

- (A) Allobarbitone (B) Butabarbital  
(C) Phenobarbital (D) Hexabarbital  
(E) Answer not known

147. Which of the following drug is phenothiazine analogue?

- (A) Promazine (B) Chlordiazepoxide  
(C) Oxazepam (D) Lorazepam  
(E) Answer not known

148. Carvedilol is a

- (A)  $\beta$  and  $\alpha$  – adrenergic blocking agent  
(B)  $\beta$  – adrenergic blocking agent  
(C)  $\alpha$  – adrenergic blocking agent  
(D)  $\alpha$  – adrenergic agonist  
(E) Answer not known

149. Which of the following drugs belongs to catechol analogue?

- (A) Adrenaline (B) Insulin  
(C) Oxytocin (D) Thyroxine  
(E) Answer not known



150. An example for the centrally acting sympatholytic drugs
- (A)  Methyldopa (B) Hexamethonium  
(C) Atenolol (D) Phentolamine  
(E) Answer not known
151. An antihypertensive agent also acts as ganglionic blocker
- (A)  Hexamethonium (B) Reserpine  
(C) Guanithidine (D) Clonidine  
(E) Answer not known
152. Which of the following is a carbonic anhydrase inhibitors?
- (A) Phensuximide (B) Nitrazepam  
(C) Trimethadione (D)  Acetazolamide  
(E) Answer not known
153. Which one of the following is hydantoin derivatives anticonvulsant?
- (A) Trimethadione (B) Phensuximide  
(C)  Mephentoin (D) Ethosuximide  
(E) Answer not known
154. Amantidine, antiviral drug is active against
- (A)  Influenza type A virus (B) Adenoviruses  
(C) Pox virus (D) Herpes viruses  
(E) Answer not known

155. Analeptic drug, nicotinic acid derivative which is used to overcome depression

- (A) Doxapram (B) Flumazenil  
(C)  Nikethamide (D) Xanthine  
(E) Answer not known

156. Name the penicillinase-resistant parenteral penicillin.

- (A) Amoxicillin (B)  Methicillin  
(C) Penicillin – V (D) Cloxacillin  
(E) Answer not known

157. Sulphamethoxazole is co-administered with Trimethoprim in a fixed dose ratio in exhibiting synergistic effect

- (A) 6:4 (B) 5:5  
(C)  5:1 (D) 5:2  
(E) Answer not known

158. Procainamide is medicinally used as

- (A) Local anaesthetic (B) Antianginal drug  
(C)  Antiarrhythmic agent (D) General anaesthetic  
(E) Answer not known

159. Griseo fulvin is produced by Fungi

- (A)  Penicillium griseofulvin (B) Bacillus polymyxa  
(C) Bacillus griseofulvin (D) Streptomyces griseofulvin  
(E) Answer not known

160. The precursor used in the production of vitamin B<sub>12</sub> by fermentation is

- (A) MgCl<sub>2</sub> – Magnesium chloride (B) CaCl<sub>2</sub> – Calcium chloride  
(C) CoCl<sub>2</sub> – Cobalt chloride (D) CuCl<sub>2</sub> – Copper chloride  
(E) Answer not known

161. Plastic syringes are sterilized by

- (A) Ultraviolet Rays (B) Tyndallisation  
(C) Evaporation (D) Hot air oven  
(E) Answer not known

162. All of the following are advantages of using dried plasma except.

- (A) Properly stored it can be used for at least 5 years  
(B) It can be stored at room temperatures if protected from light  
(C) Can be given to patients of any blood group  
(D) It must be compatible with the blood of the recipient  
(E) Answer not known

163. The volume of blood that can be collected from an eligible blood donor at one attendance is?

- (A) 220 ml (B) 520 ml  
(C) 420 ml (D) 320 ml  
(E) Answer not known

164. The following are an important types of Absorbable Haemostats except.

- (A) Human fibrin foam
- (B) Gelatin sponge
- (C) Oxidised cellulose
- (D) Citrates
- (E) Answer not known

165. Why is dextrose added to anticoagulant Acid citrate dextrose?

- (A) Delays hemolysis of erythrocytes
- (B) Improves hemolysis of erythrocytes
- (C) Delays hemolysis of leukocytes
- (D) Improves hemolysis of leukocytes
- (E) Answer not known

166. Concentrated Red Blood corpuscles is made by

- (A) Removing WBC from wholeblood
- (B) Removing platelet from wholeblood
- (C) Removing plasma from wholeblood
- (D) Removing serum from wholeblood
- (E) Answer not known

167. Which of the following is precipitated when plasma is subjected to ether fractionation at 0° and pH 7.7?

- (A) Prothrombin
- (B) Fibrinogen
- (C) Albumin
- (D) Globulin
- (E) Answer not known

168. Human Rabies vaccine belongs to the class of :
- (A)  Viral vaccines (B) Killed bacterial vaccine  
(C) Live bacterial vaccine (D) Toxoids  
(E) Answer not known
169. High degree of immunity is seen after certain diseases except
- (A)  Pneumonia (B) Diphtheria  
(C) Small pox (D) Poliomyelitis  
(E) Answer not known
170. Tetanus vaccine is
- (A) Killed vaccine (B) Attenuate vaccine  
(C)  Toxoid (D) Viral vaccine  
(E) Answer not known
171. As per National Immunization Programme (NIP) the pharmacist advised to test the temperature of the refrigerator and freezer for storing biological preparations
- (A)  Twice daily (B) Twice a week  
(C) Twice a month (D) Twice a year  
(E) Answer not known
172. The biological product of tuberculin -USP is used as
- (A) Diagnostic Aid for Histoplasmosis  
(B)  Diagnostic Aid for Tuberculosis  
(C) Passive immunizing agent  
(D) Active immunizing agent  
(E) Answer not known

173. All are used as skin disinfectants except
- (A) Betapropiolactone (B) Aniline dyes  
(C) Ethyl alcohol (D) Iodine  
(E) Answer not known
174. Name the culture media used for testing Aneorobes.
- (A) Peptone broth (B) Glucose peptone broth  
(C) Lactose peptone broth (D) Liver broth  
(E) Answer not known
175. In Eye drops, chlorhexidin is used at a concentration of \_\_\_\_\_ percent as a preservative.
- (A) 0.001 % (B) 0.01 %  
(C) 0.1 % (D) 01.0 %  
(E) Answer not known
176. Mercurial antibiotics act by combining with sulphhydryl group. One of the most important reviver of mercury is
- (A) Thioglycollate (B) glucollate  
(C) Thiolactate (D) Lactate  
(E) Answer not known
177. Chlorhexidine salts destroy bacterial cells by combining with
- (A) Cytoplasmic membrane (B) Nuclear membrane  
(C) Nucleus (D) DNA  
(E) Answer not known

178. Solutions of parenteral use are sterilised by
- |   |                        |
|---|------------------------|
| (A) Radiation                                   | (B) Cold sterilisation |
| <input checked="" type="radio"/> (C) Filtration | (D) Hot air oven       |
| (E) Answer not known                            |                        |
179. The strength of 95% V/V alcohol in terms of proof spirit is
- |  |                     |
|--|---------------------|
| <input checked="" type="radio"/> (A) 66.53° over proof | (B) 130° over proof |
| (C) 66.53° under proof                                 | (D) 35° under proof |
| (E) Answer not known                                   |                     |
180. HLB system is used to classify
- |  |                         |
|--|-------------------------|
| <input checked="" type="radio"/> (A) Surfactants | (B) Preservatives       |
| (C) Anti oxidants                                | (D) Sequestering agents |
| (E) Answer not known                             |                         |
181. The HLB value of Surfactants between 13 – 16, act as
- |                        |   |
|------------------------|---|
| (A) Antifoaming agents | (B) O/W emulsifying agents                      |
| (C) Wetting agents     | <input checked="" type="radio"/> (D) Detergents |
| (E) Answer not known   |   |
182. The following methods are used to adjust the tonicity of drug solution except
- |  |
|--|
| (A) Cryoscopic method                                  |
| (B) Sodium chloride equivalent method                  |
| <input checked="" type="radio"/> (C) Solubility method |
| (D) White - Vincent method                             |
| (E) Answer not known                                   |

183. The moisture content of a solid under steady - state ambient conditions is termed as
- (A) Equilibrium moisture content (B) Equilibrium solubility  
(C) Equilibrium saturated (D) Equilibrium dry solid  
(E) Answer not known
184. According to the British Pharmacopoeia standards, siene No: 85 through which all particle must pass are graded as
- (A) Coarse powder (B) Moderately fine powder  
(C) Very fine powder  (D) Fine powder  
(E) Answer not known
185. The growth of large particles at the expense of smaller ones, as a result of a difference in the solubility of the particles of varying sizes, is termed as
- (A) Partitioning (B) Erosive formulation  
 (C) Oswald ripening (D) Interfacial phenomenon  
(E) Answer not known
186. The following techniques is used to measure particle size of about 100 nm
- (A) Sieving (B) Optical microscope  
 (C) Electron microscope (D) Sedimentation  
(E) Answer not known



187. It is possible to convert number distributions to weight distributions with a minimum of calculation by using
- (A) Edmundson equation                      (B) Hatch – Choate equation  
(C) Feret diameter                              (D) Reynolds number  
(E) Answer not known
188. Knowledge of a solubility of a drug is essential in development of
- (A) Tablet    (B) Capsules  
(C) Powders    (D) Injections (aqueous)  
(E) Answer not known
189. Particle size of a drug powder can influence
- (A) Its dissolution rate                              (B) Its oxidation rate  
(C) Its reduction rate                              (D) Its disintegration rate  
(E) Answer not known
190. The usual concentration of Chlorocresol as preservative in liquid dosage form is
- (A) 0.2 – 0.5%                                      (B) 0.1 – 0.3%  
(C) 0.5%    (D) 0.05 – 0.1%  
(E) Answer not known
191. The relationship in Osmotic Pressure can be expressed as
- (A)  $PV = nRT$                                       (B)  $P_1 = N_1 P_1^\circ$   
(C)  $\Delta T_F = K_F m$                               (D)  $\Delta T_b = K_b m$   
(E) Answer not known

192. In the preparation of shampoo, alkyl sulphates uses as

- (A) Surfactant
- (B) Conditioning agent
- (C) Perfuming agent
- (D) Preservative
- (E) Answer not known

193. These are the antioxidants used in lipsticks except

- (A) Butylated hydroxy anizole
- (B) Propyl parahydroxy benzoate
- (C) Salt
- (D) Citric acid
- (E) Answer not known

194. The term Flaking is related to one of the following material used in container

- (A) Plastic
- (B) Paper
- (C) Tin
- (D) Glass
- (E) Answer not known

195. This is the large volume parentral

- (A) Injections
- (B) Infusions
- (C) Extracts
- (D) Oils
- (E) Answer not known

196. The statement "store in a cool place" as per IP is

- (A) Store at room temperature
- (B) Store between 2 to 8°C
- (C) Store at 0°
- (D) Store at any temperature between 8 to 25°C
- (E) Answer not known

197. The certificate format for pharmaceutical product was recommended by

- (A) COPP
- (B) WHO
- (C) CDSCO
- (D) FSSAI
- (E) Answer not known

198. Economic Order Quantity (EOQ) is =

- (A)  $Q = \sqrt{\frac{2DH}{S}}$
- (B)  $Q = \sqrt{\frac{2HS}{D}}$
- (C)  $Q = \sqrt{\frac{2DS}{H}}$
- (D)  $Q = \sqrt{2DSH}$
- (E) Answer not known

199. The average rate of tears secreted by lacrimal gland is

- (A) 5–9  $\mu\text{L}/\text{minute}$
- (B) 1.5  $\mu\text{L}/\text{minute}$
- (C) 1.2  $\mu\text{L}/\text{minute}$
- (D) 30  $\mu\text{L}/\text{minutes}$
- (E) Answer not known

200. The following are the common components of transdermal drug delivery systems except

- (A) A drug matrix or reservoir      (B) Rate limiting membrane  
(C) Flux      (D) Adhesive  
(E) Answer not known
-