

(DO NOT OPEN THIS QUESTION BOOKLET BEFORE TIME OR UNTIL YOU
ARE ASKED TO DO SO)

A

M.Phil./Ph.D./URS-EE-Nov.-2018

SET-Y

SUBJECT : Pharmaceutical Science

100093

Sr. No.

Time : 1¼ Hours

Max. Marks : 100

Total Questions : 100

Roll No. (in figures) _____ (in words) _____

Name _____ Father's Name _____

Mother's Name _____ Date of Examination _____

(Signature of the Candidate)

(Signature of the Invigilator)

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M.Phil./Ph.D./URS-EE-Nov.-2018/(Pharmaceutical Sci.)(SET-Y)/(A)

SEAL

1. Identify the *correct* statement about Brownian motion :
 - (1) Brownian motion arises due to the uneven distribution of the collisions between colloid particle and the solvent molecules.
 - (2) Brownian motion was more rapid for smaller particles.
 - (3) Brownian motion decrease with increase the viscosity of the medium.
 - (4) All of the above
2. Phenomenon wherein a compound is obtained in crystalline forms that differ in the nature or stoichiometry of included solvent molecules is known as :
 - (1) Polymorphism
 - (2) Pseudopolymorphism
 - (3) Enantiotropism
 - (4) All of the above
3. The eighth edition of Indian pharmacopoeia is published in :
 - (1) 2018
 - (2) 2017
 - (3) 2016
 - (4) 2014
4. Identify the preparation which is to be applied with friction :
 - (1) Lotion
 - (2) Liniment
 - (3) Ointment
 - (4) Linctus
5. The tablet defect due to free rotation of the punches, which have some engraving on the punch faces is known as :
 - (1) Capping
 - (2) Mottling
 - (3) Double impression
 - (4) Chipping
6. Identify the type of emulsion which conducts electricity :
 - (1) O/W emulsion
 - (2) W /O emulsion
 - (3) O/O emulsion
 - (4) None of the above
7. Nanocapsules are :
 - (1) Synthetic amphiphilic blocks that are spherical vesicular bodies containing an aqueous solution
 - (2) A lecithin and stearate encapsulated structure with a lipid core where lecithin is sited in the inner part of the capsule
 - (3) Mesoporous nanoparticles with high specificity in terms of pore volume and surface area
 - (4) Amalgamated nanoparticles composed of two subunits Poly L-lactic acid-block-polyethylene glycol

8. The germ theory of disease is proposed by :
- (1) Girolamo Fracastoro (2) Robert Koch
(3) Jenner (4) Louis Pasteur
9. Autoclaving is an example of sterilization.
- (1) Dry heat (2) Radiation (3) Moist heat (4) Filtration
10. Identify the diluents for the test disinfectant in case of Chick Martin test :
- (1) Distilled water (2) Alcohol
(3) Nutrient broth (4) Water with yeast suspension or feces
11. Following are the physiochemical factors affecting drug absorption except :
- (1) Drug solubility and dissolution rate
(2) Solvates and hydrates
(3) Disintegration time
(4) Polymorphism
12. FDA considers drug products to be pharmaceutical equivalents if they meet the criteria :
- (1) They contain the same active ingredient(s)
(2) They are of the same dosage form and route of administration
(3) They are identical in strength or concentration
(4) All of the above
13. The process of drug absorption in which the drug particles are engulfed by a cell is known as :
- (1) Active transport (2) Pinocytosis
(3) Passive diffusion (4) Facilitated diffusion
14. Identify the evaporator works based on "thermo-siphon" principle :
- (1) Rising film evaporator (2) Falling film evaporator
(3) Forced circulation evaporator (4) None of the above
15. The process of extraction in which the crude drug is boiled in a specified volume of water for a defined time; it is then cooled and strained or filtered is termed as :
- (1) Maceration (2) Percolation (3) Decoction (4) Digestion
16. The viscosity of filtrate is more than the rate of filtration is tends to :
- (1) Increase (2) Decrease
(3) Increase as well decrease (4) No effect of filtration rate

23. Identify the incompatibility in the following prescription :
Rx
Strychnine hydrochloride solution 6 ml
Aromatic spirit of ammonia 4 ml
Water make up to 1000 ml
(1) Physical incompatibility (2) Chemical incompatibility
(3) Therapeutic incompatibility (4) None of the above
24. Identify the suppository base belongs to the natural category :
(1) Polyethylene glycol (2) Wecobee
(3) Theobroma oil (4) Hydrogel
25. In Clarks rule the dose of a drug for child is calculated based on :
(1) Body weight (2) Body surface area
(3) Age (4) None of the above
26. Lead acetate cotton wool is used in limit test for Arsenic :
(1) To produce arsine gas (2) To prevent the precipitation of arsenic
(3) To trap hydrogen sulphide gas (4) To develop yellow stain
27. Copper sulphate is also known as :
(1) Bluestone (2) Blue Vitriol
(3) Romon Vitriol (4) All of the above
28. The radioisotope chromium (^{51}Cr) is a :
(1) Alpha emitter (2) Beta emitter
(3) Gamma emitter (4) Positron emitter
29. Identify the endogenous cofactor for the glucuronide conjugation :
(1) UDP-Glucuronic acid (2) Glucuronic acid
(3) Endoglucuronide (4) Glucose 4-carboxylic acid
30. Identify the antimycobacterial drug synthesized from 4-methylpyridine :
(1) Ethambutol (2) Isoniazid
(3) Rifampicin (4) Para amino salicylic acid

31. Identify the source of the macrolide antibiotic erythromycin :
- (1) *Streptomyces venezulae* (2) *Streptomyces aureofaciens*
(3) *Streptomyces notatum* (4) *Streptomyces erythreus*
32. Cortisone is chemically :
- (1) (8S, 9S, 10R, 13S, 14S, 17R)-17-Methoxy-17-(2-hydroxyacetyl)-10, 12-dimethyl-1, 2, 6, 7, 8, 9, 12, 14, 15, 16-decahydrocyclopenta[a]phenanthrene-3, 11-dione
(2) (8S, 9S, 10R, 13S, 14S, 17R)-17-Methyl-17-(2-hydroxymethyl)-10, 13-dimethoxy-1, 2, 6, 7, 8, 9, 12, 14, 15, 16-decahydrocyclopenta[a]phenanthrene-3, 11-dione
(3) (8S, 9S, 10R, 13S, 14S, 17R)-17-Hydroxy-17-(2-hydroxyacetyl)-10, 13-dimethyl-1, 2, 6, 7, 8, 9, 12, 14, 15, 16-decahydrocyclopenta[a]phenanthrene-3, 11-dione
(4) (8S, 9S, 10R, 13S, 14S, 17R)-17-Carboxy-17-(2-hydroxypropyl)-10, 13-diacetyl-1, 2, 6, 7, 8, 9, 12, 14, 15, 16-decahydrocyclopenta[a]phenanthrene-3, 11-dione
33. Celecoxib act by inhibition of :
- (1) Thymidylate synthase (2) COX-2 enzyme
(3) Angiotensin converting enzyme (4) Dihydrofolate reductase
34. The minimum q^2 value required to qualify the Hansch model is :
- (1) More than 0.5 (2) Less than 0.5
(3) More than 1 (4) Less than 0.7
35. The following are the primary standards except :
- (1) Potassium hydrogen phthalate (2) Potassium bromate
(3) Potassium permanganate (4) Sulphanilic acid
36. The following are the indicators used in non-aqueous titration of weak bases except :
- (1) Crystal violet (2) Thymol blue
(3) Methyl red (4) Oracet blue
37. Identify the titration used to estimate the aromatic primary amines :
- (1) Karl Fischer titration (2) Kjeldahl method
(3) Fajans method (4) Diazotization titration
38. The C=O stretch range of carbonyl groups in the IR spectra is cm^{-1} .
- (1) 1760-1665 (2) 3100-3000 (3) 1370-1350 (4) 675-600

39. The principle of separation of Paper Chromatography is :
(1) Absorption (2) Adsorption (3) Partition (4) Gel filtration
40. The coupling constant J value for trans compounds in NMR lies between :
(1) 6-11 (2) 12-18 (3) 0-8 (4) 5-8
41. Wernicke-Korsakoff syndrome is due to the deficiency of vitamin :
(1) D (2) B6 (3) K (4) B1
42. Buoyant density of majority of DNA is g/cm³.
(1) 8.6 (2) 1.7 (3) 4.7 (4) 6.2
43. Niemann-Pick disease is a lipid metabolism disorder in which accumulates in lysosomes in cells.
(1) Sphingomyelin (2) Glucosylceramide
(3) Sterols (4) Phytanic acid
44. Identify the *correct* statement related to colligative properties :
(1) Colligative properties depend on molecular structure of the solute.
(2) Colligative properties depend solute concentration, temperature, and nature of the solute particles.
(3) Colligative properties depend only on solute concentration and temperature, and are independent of the nature of the solute particles.
(4) All of the above
45. According to the first law of thermodynamics :
(1) The entropy of any isolated system always increases
(2) The entropy of a system approaches a constant value as the temperature approaches absolute zero
(3) The entropy of any isolated system always decreases.
(4) Energy cannot be created or destroyed in an isolated system.
46. The phase rule is :
(1) $F = C + P + 2$ (2) $F = C - P + 2$ (3) $F = C + P - 2$ (4) $F = C - P - 2$
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47. Chemical reaction whereby treatment of tosylhydrazones with strong base gives alkenes is known as :
- (1) Bamford Steven reaction (2) Stobbe condensation
(3) Willgerodt rearrangement (4) Huang-Minlong modification
48. are stereoisomers arising because of hindered rotation about a single bond, where energy differences due to steric strain or other contributors create a barrier to rotation that is high enough to allow for isolation of individual conformers.
- (1) Enantiomers (2) Diastereomers
(3) Atropisomers (4) Mesomers
49. Chemical reaction that involves the base-induced disproportionation of a non-enolizable aldehyde is known as :
- (1) Cannizzaro reaction (2) Reimer-Tiemann reaction
(3) Schotten-Baumann reaction (4) Perkin reaction
50. Identify the method used for the synthesis of quinoline :
- (1) Gould-Jacobs reaction (2) Combes quinoline synthesis
(3) Conrad-Limpach synthesis (4) All of the above
51. Identify the Type 1 receptor :
- (1) Ionotropic receptor (2) Metabotropic receptor
(3) Enzyme linked receptor (4) Nuclear receptor
52. Identify the mechanism of the drug neostigmine used in Myasthenia gravis :
- (1) Inhibition of adrenaline (2) Acetyl cholinesterase inhibitor
(3) Stimulation of beta-2 receptor (4) Stimulation of alpha-1 receptor
53. Identify the fibrinolytic drug which belongs to the category of tissue plasminogen activator :
- (1) Streptokinase (2) Urokinase (3) Tenecteplase (4) Clofibrate
54. Following are short acting bronchodilators used in the treatment of asthma except :
- (1) Salbutamol (2) Pirbuterol (3) Terbutaline (4) Salmeterol
55. Disulfiram is act by inhibition of :
- (1) Alcohol dehydrogenase (2) Acetaldehyde dehydrogenase
(3) Glutamate dehydrogenase (4) Pyruvate dehydrogenase

56. Identify the anticonvulsant drug which act by inhibiting Voltage-dependent block of voltage gated sodium channels :
- (1) Phenytoin (2) Phenobarbitone
(3) Haloperidol (4) Amphetamine
57. One international unit of insulin (1 IU) is defined as the "biological equivalent" of μg pure crystalline insulin.
- (1) 25.2 (2) 44.7 (3) 34.7 (4) 18.6
58. Identify the drug which causes Gray baby syndrome :
- (1) Penicillin (2) Streptomycin
(3) Ciprofloxacin (4) Chloramphenicol
59. Identify the drug which is an H₂ receptor antagonist :
- (1) Chlorpheniramine (2) Mepyramine
(3) Cimetidine (4) Captopril
60. Identify the teratogenic drug :
- (1) Enalapril (2) Isotretinoin
(3) Diethylstilbestrol (4) All of the above
61. Pompe's disease is a glycogen storage disease caused due to the deficiency of :
- (1) Acid alpha-glucosidase
(2) Glucose-6-phosphatase
(3) Liver glycogen phosphorylase
(4) Muscle phosphoglycerate mutase
62. Identify the chemical mediators of inflammation :
- (1) Histamine (2) Bradykinin
(3) Prostaglandins (4) All of the above
63. is tissue that is transplanted from one person to another.
- (1) Autograft (2) Allograft (3) Isograft (4) Xenograft
64. Following are examples of benign cancer except :
- (1) Adenoma (2) Osteoma
(3) Osteosarcoma (4) Squamous cell papilloma

65. The gradual buildup of cholesterol and fibrous tissue in plaques in the wall of the coronary arteries or other arteries, typically over decades, is termed :
- (1) Atherosclerosis (2) Angina
(3) Hypertension (4) Cirrhosis
66. The causative organism of Syphilis is :
- (1) Mycobacterium leprae (2) Streptococcus syphilus
(3) Treponema pallidum (4) Treponema syphili
67. Postmarketing surveillance of drug is known as phase clinical trial.
- (1) I (2) II (3) III (4) IV
68. Bleeding when using the anticoagulant warfarin is an example of adverse reaction.
- (1) Type A (2) Type B (3) Type C (4) Type D
69. Identify the drug which cannot be administered along with milk :
- (1) Chloramphenicol (2) Streptomycin
(3) Tetracycline (4) Penicillin
70. The anticancer drug 5-fluorouracil act by inhibition of :
- (1) Dihydrofolate reductase (2) Thymidylate synthase
(3) PRPP amidotransferase (4) None of the above
71. Identify the entry inhibitor used in the treatment of AIDS :
- (1) Lamivudine (2) Efavirenz
(3) Indinavir (4) Maraviroc
72. Identify the type of anaemia caused due to deficiency of Vit-B12 :
- (1) Sickle cell anaemia (2) Aplastic anaemia
(3) Pernicious anaemia (4) Polycythemia vera
73. During the isovolumic relaxation stage of cardiac cycle,
- (1) The AV valves and the seminar valves are closed
(2) The AV valves are opened and the seminar valves are closed
(3) The AV valves are closed and the seminar valves are opened
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74. Identify the name of the Xth cranial nerve :
- (1) Olfactory nerve (2) Vagus nerve
(3) Facial nerve (4) Trochlear nerve
75. The Diabetic nephropathy is a kidney disorder characterized by the symptom :
- (1) Nocturia (2) Tiredness
(3) Lack of appetite (4) All of the above
76. According to morphological classification the identify the crude drug belongs to the category of roots :
- (1) Turmeric (2) Ginger (3) Valerian (4) Aconite
77. The endogenous plant growth regulator gibberellic acid is referred as :
- (1) GA1 (2) GA3 (3) GA7 (4) GA9
78. Identify the crude drug which contains lignified trichome :
- (1) Strophanthus (2) Buchu (3) Pyrethrum (4) Datura
79. Paracytic stomata is present in :
- (1) Digitalis (2) Senna (3) Vasaka (4) Belladonna
80. Identify the source of isapgol :
- (1) Plantago ovata (2) Plantago purshii
(3) Plantago asiatica (4) Plantago Wrightiana
81. Identify the chemical constituents of neem oil :
- (1) Nimbidin (2) Nimbin (3) Nimbinin (4) All of the above
82. Identify the source of the Java cinnamon :
- (1) Cinnamomum loureirii (2) Cinnamomum burmanii
(3) Cinnamomum zeylanicum (4) Cinnamomum verum
83. Capsicum consists of dried ripe fruits of :
- (1) Capsicum sativa (2) Capsicum officinale
(3) Capsicum annum (4) Capsicum hexandrum

84. Polygalic acid is a chemical constituent of :
(1) Senega (2) Liquorice (3) Bitter almond (4) Ginseng
85. Following crude drugs contains indole alkaloids except :
(1) Ergot (2) Cinchona (3) Rauwolfia (4) Vinca
86. Identify the plant drug useful in the treatment of hypertension :
(1) Ergot (2) Gokhru (3) Colchicum (4) Rauwolfia
87. Identify the enzyme which is a fibrinolytic :
(1) Trypsin (2) Hyaluronidase
(3) Urokinase (4) Papain
88. Identify the chemical constituent of colophony :
(1) Boswellic acid (2) Abietic acid
(3) Shelloic acid (4) Eugenol
89. Insect flower is the synonym of the herb :
(1) Pyrethrum (2) Brahmi (3) Bhilawa (4) Punarnava
90. Ayurvedic preparation in the form of paste meant for external application is known as :
(1) Lehya (2) Taila (3) Gutika (4) Lepa
91. Identify the source of fennel :
(1) *Foeniculum vulgare* (2) *Eugenia caryophyllus*
(3) *Anethum garveolans* (4) *Citrus aurantium*
92. Following are the adulterants of *Digitalis* leaves except :
(1) *Verbascum thapus* (2) *Primula vulgaris*
(3) *Symphytum officinale* (4) *Thevetia neriifolia*
93. The following are the biosynthetic products of the ornithine except :
(1) Nicotine (2) Emetine (3) Tropine (4) Scopalmine
94. Identify the number of isoprene units in carotenoids :
(1) 3 (2) 4 (3) 6 (4) 8
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95. Identify the anticancer drug obtained from the marine source :
(1) Ara-C (2) ATX-II (3) Eptatretin (4) Eunicin
96. Identify the test for cardiac glycosides :
(1) Borntragers test (2) Murexide test
(3) Raymonds test (4) Molisch test
97. Libermann-Burchards test is the identification test for :
(1) Glycosides (2) Steroids
(3) Tannins (4) Napthoquinones
98. Identify the method for producing transgenic animal :
(1) DNA microinjection
(2) Embryonic stem cell-mediated gene transfer
(3) Retrovirus-mediated gene transfer
(4) All of the above
99. Identify the water soluble extractive value of Aloe is not less than %w/w :
(1) 25 (2) 20 (3) 10 (4) 15
100. Indian squill consists of dried slices of the bulbs of *Urginea indica* belongs to the family :
(1) Solanaceae (2) Liliaceae (3) Rubiaceae (4) Apocynaceae

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1. Wernicke-Korsakoff syndrome is due to the deficiency of vitamin :
(1) D (2) B6 (3) K (4) B1
2. Buoyant density of majority of DNA is g/cm³.
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(3) Rubiaceae (4) Apocynaceae
31. Identify the *correct* statement about Brownian motion :
- (1) Brownian motion arises due to the uneven distribution of the collisions between colloid particle and the solvent molecules.
(2) Brownian motion was more rapid for smaller particles.
(3) Brownian motion decrease with increase the viscosity of the medium.
(4) All of the above
32. Phenomenon wherein a compound is obtained in crystalline forms that differ in the nature or stoichiometry of included solvent molecules is known as :
- (1) Polymorphism (2) Pseudopolymorphism
(3) Enantiotrophism (4) All of the above
33. The eighth edition of Indian pharmacopoeia is published in :
- (1) 2018 (2) 2017 (3) 2016 (4) 2014
34. Identify the preparation which is to be applied with friction :
- (1) Lotion (2) Liniment
(3) Ointment (4) Linctus

35. The tablet defect due to free rotation of the punches, which have some engraving on the punch faces is known as :
- (1) Capping (2) Mottling
(3) Double impression (4) Chipping
36. Identify the type of emulsion which conducts electricity :
- (1) O/W emulsion (2) W /O emulsion
(3) O/O emulsion (4) None of the above
37. Nanocapsules are :
- (1) Synthetic amphiphilic blocks that are spherical vesicular bodies containing an aqueous solution
(2) A lecithin and stearate encapsulated structure with a lipid core where lecithin is sited in the inner part of the capsule
(3) Mesoporous nanoparticles with high specificity in terms of pore volume and surface area
(4) Amalgamated nanoparticles composed of two subunits Poly L-lactic acid-block-polyethylene glycol
38. The germ theory of disease is proposed by :
- (1) Girolamo Fracastoro (2) Robert Koch
(3) Jenner (4) Louis Pasteur
39. Autoclaving is an example of sterilization.
- (1) Dry heat (2) Radiation (3) Moist heat (4) Filtration
40. Identify the diluents for the test disinfectant in case of Chick Martin test :
- (1) Distilled water (2) Alcohol
(3) Nutrient broth (4) Water with yeast suspension or feces
41. Identify the Type 1 receptor :
- (1) Ionotropic receptor (2) Metabotropic receptor
(3) Enzyme linked receptor (4) Nuclear receptor
42. Identify the mechanism of the drug neostigmine used in Myasthenia gravis :
- (1) Inhibition of adrenaline (2) Acetyl cholinesterase inhibitor
(3) Stimulation of beta-2 receptor (4) Stimulation of alpha-1 receptor

43. Identify the fibrinolytic drug which belongs to the category of tissue plasminogen activator :
- (1) Streptokinase (2) Urokinase (3) Tenecteplase (4) Clofibrate
44. Following are short acting bronchodilators used in the treatment of asthma except :
- (1) Salbutamol (2) Pirbuterol (3) Terbutaline (4) Salmeterol
45. Disulfiram is act by inhibition of :
- (1) Alcohol dehydrogenase (2) Acetaldehyde dehydrogenase
(3) Glutamate dehydrogenase (4) Pyruvate dehydrogenase
46. Identify the anticonvulsant drug which act by inhibiting Voltage-dependent block of voltage gated sodium channels :
- (1) Phenytoin (2) Phenobarbitone
(3) Haloperidol (4) Amphetamine
47. One international unit of insulin (1 IU) is defined as the "biological equivalent" of µg pure crystalline insulin.
- (1) 25.2 (2) 44.7 (3) 34.7 (4) 18.6
48. Identify the drug which causes Gray baby syndrome :
- (1) Penicillin (2) Streptomycin
(3) Ciprofloxacin (4) Chloramphenicol
49. Identify the drug which is an H₂ receptor antagonist :
- (1) Chlorpheramine (2) Mepyramine
(3) Cimitidine (4) Captopril
50. Identify the teratogenic drug :
- (1) Enalapril (2) Isotretinoin
(3) Diethylstilbestrol (4) All of the above
51. Pompe's disease is a glycogen storage disease caused due to the deficiency of :
- (1) Acid alpha-glucosidase
(2) Glucose-6-phosphatase
(3) Liver glycogen phosphorylase
(4) Muscle phosphoglycerate mutase

52. Identify the chemical mediators of inflammation :
- (1) Histamine (2) Bradykinin
(3) Prostaglandins (4) All of the above
53. is tissue that is transplanted from one person to another.
- (1) Autograft (2) Allograft
(3) Isograft (4) Xenograft
54. Following are examples of benign cancer except :
- (1) Adenoma (2) Osteoma
(3) Osteosarcoma (4) Squamous cell papilloma
55. The gradual buildup of cholesterol and fibrous tissue in plaques in the wall of the coronary arteries or other arteries, typically over decades, is termed :
- (1) Atherosclerosis (2) Angina
(3) Hypertension (4) Cirrhosis
56. The causative organism of Syphilis is :
- (1) Mycobacterium leprae (2) Streptococcus syphilus
(3) Treponema pallidum (4) Treponema syphili
57. Postmarketing surveillance of drug is known as phase clinical trial.
- (1) I (2) II (3) III (4) IV
58. Bleeding when using the anticoagulant warfarin is an example of adverse reaction.
- (1) Type A (2) Type B
(3) Type C (4) Type D
59. Identify the drug which cannot be administered along with milk :
- (1) Chloramphenicol (2) Streptomycin
(3) Tetracycline (4) Penicillin
60. The anticancer drug 5-fluorouracil act by inhibition of :
- (1) Dihydrofolate reductase (2) Thymidylate synthase
(3) PRPP amidotransferase (4) None of the above

61. According to drugs and cosmetics act, the regulations and standards for surgical dressing is given in :
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- Rx
Strychnine hydrochloride solution 6 ml
Aromatic spirit of ammonia 4 ml
Water make up to 1000 ml
- (1) Physical incompatibility (2) Chemical incompatibility
(3) Therapeutic incompatibility (4) None of the above
64. Identify the suppository base belongs to the natural category :
- (1) Polyethylene glycol (2) Wecobee
(3) Theobroma oil (4) Hydrogel
65. In Clarks rule the dose of a drug for child is calculated based on :
- (1) Body weight (2) Body surface area
(3) Age (4) None of the above
66. Lead acetate cotton wool is used in limit test for Arsenic :
- (1) To produce arsine gas (2) To prevent the precipitation of arsenic
(3) To trap hydrogen sulphide gas (4) To develop yellow stain
67. Copper sulphate is also known as :
- (1) Bluestone (2) Blue Vitriol
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68. The radioisotope chromium (^{51}Cr) is a :
- (1) Alpha emitter (2) Beta emitter
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77. Expand the term GATT :
- (1) Global Agreement on Tariffs and Trade
 - (2) Global Agreement on Tax and Trade
 - (3) General Agreement on Tariffs and Trade
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78. Identify the function of Central Drug Standard Control Organization (CDSCO) :
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- (1) A medicine for the internal or external use of human beings or animals
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 - (3) any article, other than food, intended to affect or influence in any way the structure or any organic function of the body of human beings or animals
 - (4) All of the above
80. The form of consent according to in sub-section (4) of Section 3 of Medical termination of Pregnancy Act, 1970 and Rules 1975 is given in :
- | | |
|------------|------------|
| (1) Form A | (2) Form B |
| (3) Form C | (4) Form D |
81. Identify the chemical constituents of neem oil :
- | | |
|--------------|----------------------|
| (1) Nimbidin | (2) Nimbin |
| (3) Nimbinin | (4) All of the above |
82. Identify the source of the Java cinnamon :
- | | |
|---------------------------|-------------------------|
| (1) Cinnamomum loureirii | (2) Cinnamomum burmanii |
| (3) Cinnamomum zeylanicum | (4) Cinnamomum verum |

83. Capsicum consists of dried ripe fruits of :
(1) Capsicum sativa (2) Capsicum officinale
(3) Capsicum annum (4) Capsicum hexandrum
84. Polygalic acid is a chemical constituent of :
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(1) Boswellic acid (2) Abietic acid
(3) Shelloic acid (4) Eugenol
89. Insect flower is the synonym of the herb :
(1) Pyrethrum (2) Brahmi
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90. Ayurvedic preparation in the form of paste meant for external application is known as :
(1) Lehya (2) Taila (3) Gutika (4) Lepa
91. Identify the source of the macrolide antibiotic erythromycin :
(1) Streptomyces venezulae (2) Streptomyces aureofaciens
(3) Streptomyces notatum (4) Streptomyces erythreus

92. Cortisone is chemically :

- (1) (8S, 9S, 10R, 13S, 14S, 17R)-17-Methoxy-17-(2-hydroxyacetyl)-10, 12-dimethyl-1, 2, 6, 7, 8, 9, 12, 14, 15, 16-decahydrocyclopenta[a]phenanthrene-3, 11-dione
- (2) (8S, 9S, 10R, 13S, 14S, 17R)-17-Methyl-17-(2-hydroxymethyl)-10, 13-dimethoxy-1, 2, 6, 7, 8, 9, 12, 14, 15, 16-decahydrocyclopenta[a]phenanthrene-3, 11-dione
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- (4) (8S, 9S, 10R, 13S, 14S, 17R)-17-Carboxy-17-(2-hydroxypropyl)-10, 13-diacetyl-1, 2, 6, 7, 8, 9, 12, 14, 15, 16-decahydrocyclopenta[a]phenanthrene-3, 11-dione

93. Celecoxib act by inhibition of :

- (1) Thymidylate synthase
- (2) COX-2 enzyme
- (3) Angiotensin converting enzyme
- (4) Dihydrofolate reductase

94. The minimum q^2 value required to qualify the Hansch model is :

- (1) More than 0.5
- (2) Less than 0.5
- (3) More than 1
- (4) Less than 0.7

95. The following are the primary standards except :

- (1) Potassium hydrogen phthalate
- (2) Potassium bromate
- (3) Potassium permanganate
- (4) Sulphanilic acid

96. The following are the indicators used in non-aqueous titration of weak bases except :

- (1) Crystal violet
- (2) Thymol blue
- (3) Methyl red
- (4) Oracet blue

97. Identify the titration used to estimate the aromatic primary amines :

- (1) Karl Fischer titration
- (2) Kjeldahl method
- (3) Fajans method
- (4) Diazotization titration

98. The C=O stretch range of carbonyl groups in the IR spectra is cm^{-1} .

- (1) 1760-1665
- (2) 3100-3000
- (3) 1370-1350
- (4) 675-600

99. The principle of separation of Paper Chromatography is :

- (1) Absorption
- (2) Adsorption
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100. The coupling constant J value for trans compounds in NMR lies between :

- (1) 6-11
- (2) 12-18
- (3) 0-8
- (4) 5-8

(DO NOT OPEN THIS QUESTION BOOKLET BEFORE TIME OR UNTIL YOU ARE ASKED TO DO SO)

C

M.Phil./Ph.D./URS-EE-Nov.-2018

SET-Y

SUBJECT : Pharmaceutical Science

Sr. No. 100095

Time : 1¼ Hours

Max. Marks : 100

Total Questions : 100

Roll No. (in figures) _____ (in words) _____

Name _____ Father's Name _____

Mother's Name _____ Date of Examination _____

(Signature of the Candidate)

(Signature of the Invigilator)

CANDIDATES MUST READ THE FOLLOWING INFORMATION/INSTRUCTIONS BEFORE STARTING THE QUESTION PAPER.

- 1. All questions are compulsory.**
- The candidates **must return** the question booklet as well as OMR Answer-Sheet to the Invigilator concerned before leaving the Examination Hall, failing which a case of use of unfair-means / misbehaviour will be registered against him / her, in addition to lodging of an FIR with the police. Further the answer-sheet of such a candidate will not be evaluated.
- Keeping in view the transparency of the examination system, carbonless OMR Sheet is provided to the candidate so that a copy of OMR Sheet may be kept by the candidate.
- Question Booklet along with answer key of all the A, B, C & D code will be got uploaded on the university website after the conduct of Entrance Examination. In case there is any discrepancy in the Question Booklet/Answer Key, the same may be brought to the notice of the Controller of Examination in writing/through E.Mail within 24 hours of uploading the same on the University Website. Thereafter, no complaint in any case, will be considered.
- The candidate **must not** do any rough work or writing in the OMR Answer-Sheet. Rough work, if any, may be done in the question booklet itself. Answers **must not** be ticked in the question booklet.
- There will be no negative marking. Each correct answer will be awarded one full mark. Cutting, erasing, overwriting and more than one answer in OMR Answer-Sheet will be treated as incorrect answer.**
- Use only **Black or Blue Ball Point Pen** of good quality in the OMR Answer-Sheet.
- Before answering the questions, the candidates should ensure that they have been supplied correct and complete booklet. Complaints, if any, regarding misprinting etc. will not be entertained 30 minutes after starting of the examination.*

M.Phil./Ph.D./URS-EE-Nov.-2018/(Pharmaceutical Sci.)(SET-Y)/(C)

SEAL

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- (1) Lamivudine (2) Efavirenz
(3) Indinavir (4) Maraviroc
- 32.** Identify the type of anaemia caused due to deficiency of Vit-B12 :
- (1) Sickle cell anaemia (2) Aplastic anaemia
(3) Pernicious anaemia (4) Polycythemia vera
- 33.** During the isovolumic relaxation stage of cardiac cycle,
- (1) The AV valves and the seminar valves are closed
(2) The AV valves are opened and the seminar valves are closed
(3) The AV valves are closed and the seminar valves are opened
(4) All of the above
- 34.** Identify the name of the Xth cranial nerve :
- (1) Olfactory nerve (2) Vagus nerve
(3) Facial nerve (4) Trochlear nerve
- 35.** The Diabetic nephropathy is a kidney disorder characterized by the symptom :
- (1) Nocturia (2) Tiredness
(3) Lack of appetite (4) All of the above
- 36.** According to morphological classification the identify the crude drug belongs to the category of roots :
- (1) Turmeric (2) Ginger (3) Valerian (4) Aconite

C

37. The endogenous plant growth regulator gibberellic acid is referred as :
- (1) GA1 (2) GA3 (3) GA7 (4) GA9
38. Identify the crude drug which contains lignified trichome :
- (1) Strophanthus (2) Buchu
(3) Pyrethrum (4) Datura
39. Paracytic stomata is present in :
- (1) Digitalis (2) Senna
(3) Vasaka (4) Belladonna
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61. Following are the physiochemical factors affecting drug absorption except :
- (1) Drug solubility and dissolution rate
(2) Solvates and hydrates
(3) Disintegration time
(4) Polymorphism

62. FDA considers drug products to be pharmaceutical equivalents if they meet the criteria :
- (1) They contain the same active ingredient(s)
 - (2) They are of the same dosage form and route of administration
 - (3) They are identical in strength or concentration
 - (4) All of the above
63. The process of drug absorption in which the drug particles are engulfed by a cell is known as :
- (1) Active transport
 - (2) Pinocytosis
 - (3) Passive diffusion
 - (4) Facilitated diffusion
64. Identify the evaporator works based on "thermo-siphon" principle :
- (1) Rising film evaporator
 - (2) Falling film evaporator
 - (3) Forced circulation evaporator
 - (4) None of the above
65. The process of extraction in which the crude drug is boiled in a specified volume of water for a defined time; it is then cooled and strained or filtered is termed as :
- (1) Maceration
 - (2) Percolation
 - (3) Decoction
 - (4) Digestion
66. The viscosity of filtrate is more than the rate of filtration is tends to :
- (1) Increase
 - (2) Decrease
 - (3) Increase as well decrease
 - (4) No effect of filtration rate
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71. Wernicke-Korsakoff syndrome is due to the deficiency of vitamin :
- (1) D
 - (2) B6
 - (3) K
 - (4) B1
72. Buoyant density of majority of DNA is g/cm³.
- (1) 8.6
 - (2) 1.7
 - (3) 4.7
 - (4) 6.2
73. Niemann-Pick disease is a lipid metabolism disorder in which accumulates in lysosomes in cells.
- (1) Sphingomyelin
 - (2) Glucosylceramide
 - (3) Sterols
 - (4) Phytanic acid
74. Identify the *correct* statement related to colligative properties :
- (1) Colligative properties depend on molecular structure of the solute.
 - (2) Colligative properties depend solute concentration, temperature, and nature of the solute particles.
 - (3) Colligative properties depend only on solute concentration and temperature, and are independent of the nature of the solute particles.
 - (4) All of the above
75. According to the first law of thermodynamics :
- (1) The entropy of any isolated system always increases
 - (2) The entropy of a system approaches a constant value as the temperature approaches absolute zero
 - (3) The entropy of any isolated system always decreases.
 - (4) Energy cannot be created or destroyed in an isolated system.

76. The phase rule is :
- (1) $F = C + P + 2$ (2) $F = C - P + 2$
(3) $F = C + P - 2$ (4) $F = C - P - 2$
77. Chemical reaction whereby treatment of tosylhydrazones with strong base gives alkenes is known as :
- (1) Bamford Steven reaction (2) Stobbe condensation
(3) Willgerodt rearrangement (4) Huang-Minlong modification
78. are stereoisomers arising because of hindered rotation about a single bond, where energy differences due to steric strain or other contributors create a barrier to rotation that is high enough to allow for isolation of individual conformers.
- (1) Enantiomers (2) Diastereomers
(3) Atropisomers (4) Mesomers
79. Chemical reaction that involves the base-induced disproportionation of a non-enolizable aldehyde is known as :
- (1) Cannizzaro reaction (2) Reimer-Tiemann reaction
(3) Schotten-Baumann reaction (4) Perkin reaction
80. Identify the method used for the synthesis of quinoline :
- (1) Gould-Jacobs reaction (2) Combes quinoline synthesis
(3) Conrad-Limpach synthesis (4) All of the above
81. Identify the source of fennel :
- (1) *Foeniculum vulgare* (2) *Eugenia caryophyllus*
(3) *Anethum garveolans* (4) *Citrus aurantium*
82. Following are the adulterants of *Digitalis* leaves except :
- (1) *Verbascum thapsus* (2) *Primula vulgaris*
(3) *Symphytum officinale* (4) *Thevetia neriifolia*
83. The following are the biosynthetic products of the ornithine except :
- (1) Nicotine (2) Emetine (3) Tropine (4) Scopalmine
84. Identify the number of isoprene units in carotenoids :
- (1) 3 (2) 4 (3) 6 (4) 8

85. Identify the anticancer drug obtained from the marine source :
- (1) Ara-C (2) ATX-II
(3) Eptatretin (4) Eunicin
86. Identify the test for cardiac glycosides :
- (1) Borntragers test (2) Murexide test
(3) Raymonds test (4) Molisch test
87. Libermann-Burchards test is the identification test for :
- (1) Glycosides (2) Steroids
(3) Tannins (4) Napthoquinones
88. Identify the method for producing transgenic animal :
- (1) DNA microinjection
(2) Embryonic stem cell-mediated gene transfer
(3) Retrovirus-mediated gene transfer
(4) All of the above
89. Identify the water soluble extractive value of Aloe is not less than %w/w :
- (1) 25 (2) 20 (3) 10 (4) 15
90. Indian squill consists of dried slices of the bulbs of *Urginea indica* belongs to the family :
- (1) Solanaceae (2) Liliaceae
(3) Rubiaceae (4) Apocynaceae
91. Pompe's disease is a glycogen storage disease caused due to the deficiency of :
- (1) Acid alpha-glucosidase
(2) Glucose-6-phosphatase
(3) Liver glycogen phosphorylase
(4) Muscle phosphoglycerate mutase
92. Identify the chemical mediators of inflammation :
- (1) Histamine (2) Bradykinin
(3) Prostaglandins (4) All of the above

93. is tissue that is transplanted from one person to another.
- (1) Autograft (2) Allograft
(3) Isograft (4) Xenograft
94. Following are examples of benign cancer except :
- (1) Adenoma (2) Osteoma
(3) Osteosarcoma (4) Squamous cell papilloma
95. The gradual buildup of cholesterol and fibrous tissue in plaques in the wall of the coronary arteries or other arteries, typically over decades, is termed :
- (1) Atherosclerosis (2) Angina
(3) Hypertension (4) Cirrhosis
96. The causative organism of Syphilis is :
- (1) Mycobacterium leprae (2) Streptococcus syphilus
(3) Treponema pallidum (4) Treponema syphili
97. Postmarketing surveillance of drug is known as phase clinical trial.
- (1) I (2) II (3) III (4) IV
98. Bleeding when using the anticoagulant warfarin is an example of adverse reaction.
- (1) Type A (2) Type B (3) Type C (4) Type D
99. Identify the drug which cannot be administered along with milk :
- (1) Chloramphenicol (2) Streptomycin
(3) Tetracycline (4) Penicillin
100. The anticancer drug 5-flurouracil act by inhibition of :
- (1) Dihydrofolate reductase (2) Thymidylate synthase
(3) PRPP amidotransferase (4) None of the above

(DO NOT OPEN THIS QUESTION BOOKLET BEFORE TIME OR UNTIL YOU ARE ASKED TO DO SO)

D

M.Phil./Ph.D./URS-EE-Nov.-2018

SET-Y

SUBJECT : Pharmaceutical Science

100092

Sr. No.

Time : 1¼ Hours

Max. Marks : 100

Total Questions : 100

Roll No. (in figures) _____ (in words) _____

Name _____ Father's Name _____

Mother's Name _____ Date of Examination _____

(Signature of the Candidate)

(Signature of the Invigilator)

CANDIDATES MUST READ THE FOLLOWING INFORMATION/INSTRUCTIONS BEFORE STARTING THE QUESTION PAPER.

- 1. All questions are compulsory.**
- The candidates **must return** the question booklet as well as OMR Answer-Sheet to the Invigilator concerned before leaving the Examination Hall, failing which a case of use of unfair-means / misbehaviour will be registered against him / her, in addition to lodging of an FIR with the police. Further the answer-sheet of such a candidate will not be evaluated.
- Keeping in view the transparency of the examination system, carbonless OMR Sheet is provided to the candidate so that a copy of OMR Sheet may be kept by the candidate.
- Question Booklet along with answer key of all the A, B, C & D code will be got uploaded on the university website after the conduct of Entrance Examination. In case there is any discrepancy in the Question Booklet/Answer Key, the same may be brought to the notice of the Controller of Examination in writing/through E.Mail within 24 hours of uploading the same on the University Website. Thereafter, no complaint in any case, will be considered.
- The candidate **must not** do any rough work or writing in the OMR Answer-Sheet. Rough work, if any, may be done in the question booklet itself. Answers **must not** be ticked in the question booklet.
- There will be no negative marking. Each correct answer will be awarded one full mark. Cutting, erasing, overwriting and more than one answer in OMR Answer-Sheet will be treated as incorrect answer.**
- Use only **Black** or **Blue Ball Point Pen** of good quality in the OMR Answer-Sheet.
- Before answering the questions, the candidates should ensure that they have been supplied correct and complete booklet. Complaints, if any, regarding misprinting etc. will not be entertained 30 minutes after starting of the examination.**

M.Phil./Ph.D./URS-EE-Nov.-2018/(Pharmaceutical Sci.)(SET-Y)/(D)

SEAL

1. Identify the source of fennel :
(1) *Foeniculum vulgare* (2) *Eugenia caryophyllus*
(3) *Anethum graveolans* (4) *Citrus aurantium*
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10. Indian squill consists of dried slices of the bulbs of *Urginea indica* belongs to the family :
- (1) Solanaceae (2) Liliaceae (3) Rubiaceae (4) Apocynaceae
11. Identify the source of the macrolide antibiotic erythromycin :
- (1) *Streptomyces venezulae* (2) *Streptomyces aureofaciens*
(3) *Streptomyces notatum* (4) *Streptomyces erythreus*
12. Cortisone is chemically :
- (1) (8S, 9S, 10R, 13S, 14S, 17R)-17-Methoxy-17-(2-hydroxyacetyl)-10, 12-dimethyl-1, 2, 6, 7, 8, 9, 12, 14, 15, 16-decahydrocyclopenta[a]phenanthrene-3, 11-dione
(2) (8S, 9S, 10R, 13S, 14S, 17R)-17-Methyl-17-(2-hydroxymethyl)-10, 13-dimethoxy-1, 2, 6, 7, 8, 9, 12, 14, 15, 16-decahydrocyclopenta[a]phenanthrene-3, 11-dione
(3) (8S, 9S, 10R, 13S, 14S, 17R)-17-Hydroxy-17-(2-hydroxyacetyl)-10, 13-dimethyl-1, 2, 6, 7, 8, 9, 12, 14, 15, 16-decahydrocyclopenta[a]phenanthrene-3, 11-dione
(4) (8S, 9S, 10R, 13S, 14S, 17R)-17-Carboxy-17-(2-hydroxypropyl)-10, 13-diacetyl-1, 2, 6, 7, 8, 9, 12, 14, 15, 16-decahydrocyclopenta[a]phenanthrene-3, 11-dione
13. Celecoxib act by inhibition of :
- (1) Thymidylate synthase (2) COX-2 enzyme
(3) Angiotensin converting enzyme (4) Dihydrofolate reductase
14. The minimum q^2 value required to qualify the Hansch model is :
- (1) More than 0.5 (2) Less than 0.5
(3) More than 1 (4) Less than 0.7
15. The following are the primary standards except :
- (1) Potassium hydrogen phthalate (2) Potassium bromate
(3) Potassium permanganate (4) Sulphanilic acid
16. The following are the indicators used in non-aqueous titration of weak bases except :
- (1) Crystal violet (2) Thymol blue
(3) Methyl red (4) Oracet blue
17. Identify the titration used to estimate the aromatic primary amines :
- (1) Karl Fischer titration (2) Kjeldahl method
(3) Fajans method (4) Diazotization titration

18. The C=O stretch range of carbonyl groups in the IR spectra is cm^{-1} .
(1) 1760-1665 (2) 3100-3000
(3) 1370-1350 (4) 675-600
19. The principle of separation of Paper Chromatography is :
(1) Absorption (2) Adsorption
(3) Partition (4) Gel filtration
20. The coupling constant J value for trans compounds in NMR lies between :
(1) 6-11 (2) 12-18 (3) 0-8 (4) 5-8
21. Identify the entry inhibitor used in the treatment of AIDS :
(1) Lamivudine (2) Efavirenz
(3) Indinavir (4) Maraviroc
22. Identify the type of anaemia caused due to deficiency of Vit-B12 :
(1) Sickle cell anaemia (2) Aplastic anaemia
(3) Pernicious anaemia (4) Polycythemia vera
23. During the isovolumic relaxation stage of cardiac cycle,
(1) The AV valves and the seminar valves are closed
(2) The AV valves are opened and the seminar valves are closed
(3) The AV valves are closed and the seminar valves are opened
(4) All of the above
24. Identify the name of the Xth cranial nerve :
(1) Olfactory nerve (2) Vagus nerve
(3) Facial nerve (4) Trochlear nerve
25. The Diabetic nephropathy is a kidney disorder characterized by the symptom :
(1) Nocturia (2) Tiredness
(3) Lack of appetite (4) All of the above
26. According to morphological classification the identify the crude drug belongs to the category of roots :
(1) Turmeric (2) Ginger (3) Valerian (4) Aconite

27. The endogenous plant growth regulator gibberellic acid is referred as :
(1) GA1 (2) GA3 (3) GA7 (4) GA9
28. Identify the crude drug which contains lignified trichome :
(1) Strophanthus (2) Buchu
(3) Pyrethrum (4) Datura
29. Paracytic stomata is present in :
(1) Digitalis (2) Senna
(3) Vasaka (4) Belladonna
30. Identify the source of isapgol :
(1) Plantago ovata (2) Plantago purshii
(3) Plantago asiatica (4) Plantago Wrightiana
31. According to drugs and cosmetics act, the regulations and standards for surgical dressing is given in :
(1) Schedule F-I (2) Schedule F-II
(3) Schedule F-III (4) Schedule E
32. Following are Phase-II metabolic reactions except :
(1) Oxidation (2) Glucuronide conjugation
(3) Acetylation (4) Methylation
33. Identify the incompatibility in the following prescription :
Rx
Strychnine hydrochloride solution 6 ml
Aromatic spirit of ammonia 4 ml
Water make up to 1000 ml
(1) Physical incompatibility (2) Chemical incompatibility
(3) Therapeutic incompatibility (4) None of the above
34. Identify the suppository base belongs to the natural category :
(1) Polyethylene glycol (2) Wecobee
(3) Theobroma oil (4) Hydrogel

35. In Clarks rule the dose of a drug for child is calculated based on :
- (1) Body weight (2) Body surface area
(3) Age (4) None of the above
36. Lead acetate cotton wool is used in limit test for Arsenic :
- (1) To produce arsine gas (2) To prevent the precipitation of arsenic
(3) To trap hydrogen sulphide gas (4) To develop yellow stain
37. Copper sulphate is also known as :
- (1) Bluestone (2) Blue Vitriol
(3) Romon Vitriol (4) All of the above
38. The radioisotope chromium (^{51}Cr) is a :
- (1) Alpha emitter (2) Beta emitter
(3) Gamma emitter (4) Positron emitter
39. Identify the endogenous cofactor for the glucuronide conjugation :
- (1) UDP-Glucuronic acid (2) Glucuronic acid
(3) Endoglucuronide (4) Glucose 4-carboxylic acid
40. Identify the antimycobacterial drug synthesized from 4-methylpyridine :
- (1) Ethambutol (2) Isoniazid
(3) Rifampicin (4) Para amino salicylic acid
41. Pompe's disease is a glycogen storage disease caused due to the deficiency of :
- (1) Acid alpha-glucosidase
(2) Glucose-6-phosphatase
(3) Liver glycogen phosphorylase
(4) Muscle phosphoglycerate mutase
42. Identify the chemical mediators of inflammation :
- (1) Histamine (2) Bradykinin
(3) Prostaglandins (4) All of the above
43. is tissue that is transplanted from one person to another.
- (1) Autograft (2) Allograft (3) Isograft (4) Xenograft

44. Following are examples of benign cancer except :
- (1) Adenoma (2) Osteoma
(3) Osteosarcoma (4) Squamous cell papilloma
45. The gradual buildup of cholesterol and fibrous tissue in plaques in the wall of the coronary arteries or other arteries, typically over decades, is termed :
- (1) Atherosclerosis (2) Angina
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46. The causative organism of Syphilis is :
- (1) Mycobacterium leprae (2) Streptococcus syphilus
(3) Treponema pallidum (4) Treponema syphili
47. Postmarketing surveillance of drug is known as phase clinical trial.
- (1) I (2) II (3) III (4) IV
48. Bleeding when using the anticoagulant warfarin is an example of adverse reaction.
- (1) Type A (2) Type B (3) Type C (4) Type D
49. Identify the drug which cannot be administered along with milk :
- (1) Chloramphenicol (2) Streptomycin
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50. The anticancer drug 5-fluorouracil act by inhibition of :
- (1) Dihydrofolate reductase (2) Thymidylate synthase
(3) PRPP amidotransferase (4) None of the above
51. Identify the chemical constituents of neem oil :
- (1) Nimbidin (2) Nimbin
(3) Nimbinin (4) All of the above
52. Identify the source of the Java cinnamon :
- (1) Cinnamomum loureirii (2) Cinnamomum burmanii
(3) Cinnamomum zeylanicum (4) Cinnamomum verum

53. Capsicum consists of dried ripe fruits of :
(1) Capsicum sativa (2) Capsicum officinale
(3) Capsicum annum (4) Capsicum hexandrum
54. Polygalic acid is a chemical constituent of :
(1) Senega (2) Liquorice
(3) Bitter almond (4) Ginseng
55. Following crude drugs contains indole alkaloids except :
(1) Ergot (2) Cinchona
(3) Rauwolfia (4) Vinca
56. Identify the plant drug useful in the treatment of hypertension :
(1) Ergot (2) Gokhru
(3) Colchicum (4) Rauwolfia
57. Identify the enzyme which is a fibrinolytic :
(1) Trypsin (2) Hyaluronidase
(3) Urokinase (4) Papain
58. Identify the chemical constituent of colophony :
(1) Boswellic acid (2) Abietic acid
(3) Shelloic acid (4) Eugenol
59. Insect flower is the synonym of the herb :
(1) Pyrethrum (2) Brahmi
(3) Bhilawa (4) Punarnava
60. Ayurvedic preparation in the form of paste meant for external application is known as :
(1) Lehya (2) Taila (3) Gutika (4) Lepa
61. Wernicke-Korsakoff syndrome is due to the deficiency of vitamin :
(1) D (2) B6 (3) K (4) B1
62. Buoyant density of majority of DNA is g/cm³.
(1) 8.6 (2) 1.7 (3) 4.7 (4) 6.2

63. Niemann-Pick disease is a lipid metabolism disorder in which accumulates in lysosomes in cells.
- (1) Sphingomyelin (2) Glucosylceramide
(3) Sterols (4) Phytanic acid
64. Identify the *correct* statement related to colligative properties :
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70. Identify the method used for the synthesis of quinoline :
- (1) Gould-Jacobs reaction (2) Combes quinoline synthesis
(3) Conrad-Limpach synthesis (4) All of the above
71. Identify the Type 1 receptor :
- (1) Ionotropic receptor (2) Metabotropic receptor
(3) Enzyme linked receptor (4) Nuclear receptor
72. Identify the mechanism of the drug neostigmine used in Myasthenia gravis :
- (1) Inhibition of adrenaline (2) Acetyl cholinesterase inhibitor
(3) Stimulation of beta-2 receptor (4) Stimulation of alpha-1 receptor
73. Identify the fibrinolytic drug which belongs to the category of tissue plasminogen activator :
- (1) Streptokinase (2) Urokinase
(3) Tenecteplase (4) Clofibrate
74. Following are short acting bronchodilators used in the treatment of asthma except :
- (1) Salbutamol (2) Pirbuterol
(3) Terbutaline (4) Salmeterol
75. Disulfiram is act by inhibition of :
- (1) Alcohol dehydrogenase (2) Acetaldehyde dehydrogenase
(3) Glutamate dehydrogenase (4) Pyruvate dehydrogenase
76. Identify the anticonvulsant drug which act by inhibiting Voltage-dependent block of voltage gated sodium channels :
- (1) Phenytoin (2) Phenobarbitone
(3) Haloperidol (4) Amphetamine
77. One international unit of insulin (1 IU) is defined as the "biological equivalent" of μg pure crystalline insulin.
- (1) 25.2 (2) 44.7 (3) 34.7 (4) 18.6

78. Identify the drug which causes Gray baby syndrome :
- (1) Penicillin (2) Streptomycin
(3) Ciprofloxacin (4) Chloramphenicol
79. Identify the drug which is an H₂ receptor antagonist :
- (1) Chlorpheramine (2) Mepyramine
(3) Cimitidine (4) Captopril
80. Identify the teratogenic drug :
- (1) Enalapril (2) Isotretinoin
(3) Diethylstilbestrol (4) All of the above
81. Identify the *correct* statement about Brownian motion :
- (1) Brownian motion arises due to the uneven distribution of the collisions between colloid particle and the solvent molecules.
(2) Brownian motion was more rapid for smaller particles.
(3) Brownian motion decrease with increase the viscosity of the medium.
(4) All of the above
82. Phenomenon wherein a compound is obtained in crystalline forms that differ in the nature or stoichiometry of included solvent molecules is known as :
- (1) Polymorphism (2) Pseudopolymorphism
(3) Enantiotrophism (4) All of the above
83. The eighth edition of Indian pharmacopoeia is published in :
- (1) 2018 (2) 2017 (3) 2016 (4) 2014
84. Identify the preparation which is to be applied with friction :
- (1) Lotion (2) Liniment (3) Ointment (4) Linctus
85. The tablet defect due to free rotation of the punches, which have some engraving on the punch faces is known as :
- (1) Capping (2) Mottling
(3) Double impression (4) Chipping
86. Identify the type of emulsion which conducts electricity :
- (1) O/W emulsion (2) W /O emulsion
(3) O/O emulsion (4) None of the above

87. Nanocapsules are :
- (1) Synthetic amphiphilic blocks that are spherical vesicular bodies containing an aqueous solution
 - (2) A lecithin and stearate encapsulated structure with a lipid core where lecithin is sited in the inner part of the capsule
 - (3) Mesoporous nanoparticles with high specificity in terms of pore volume and surface area
 - (4) Amalgamated nanoparticles composed of two subunits Poly L-lactic acid-block-polyethylene glycol
88. The germ theory of disease is proposed by :
- (1) Girolamo Fracastoro
 - (2) Robert Koch
 - (3) Jenner
 - (4) Louis Pasteur
89. Autoclaving is an example of sterilization.
- (1) Dry heat
 - (2) Radiation
 - (3) Moist heat
 - (4) Filtration
90. Identify the diluents for the test disinfectant in case of Chick Martin test :
- (1) Distilled water
 - (2) Alcohol
 - (3) Nutrient broth
 - (4) Water with yeast suspension or feces
91. Following are the physiochemical factors affecting drug absorption except :
- (1) Drug solubility and dissolution rate
 - (2) Solvates and hydrates
 - (3) Disintegration time
 - (4) Polymorphism
92. FDA considers drug products to be pharmaceutical equivalents if they meet the criteria :
- (1) They contain the same active ingredient(s)
 - (2) They are of the same dosage form and route of administration
 - (3) They are identical in strength or concentration
 - (4) All of the above
93. The process of drug absorption in which the drug particles are engulfed by a cell is known as :
- (1) Active transport
 - (2) Pinocytosis
 - (3) Passive diffusion
 - (4) Facilitated diffusion

94. Identify the evaporator works based on "thermo-siphon" principle :
- (1) Rising film evaporator (2) Falling film evaporator
(3) Forced circulation evaporator (4) None of the above
95. The process of extraction in which the crude drug is boiled in a specified volume of water for a defined time; it is then cooled and strained or filtered is termed as :
- (1) Maceration (2) Percolation (3) Decoction (4) Digestion
96. The viscosity of filtrate is more than the rate of filtration is tends to :
- (1) Increase (2) Decrease
(3) Increase as well decrease (4) No effect of filtration rate
97. Expand the term GATT :
- (1) Global Agreement on Tariffs and Trade
(2) Global Agreement on Tax and Trade
(3) General Agreement on Tariffs and Trade
(4) General Agreement on Tax and Trade
98. Identify the function of Central Drug Standard Control Organization (CDSCO) :
- (1) Regulatory control over the import of drugs
(2) Approval of new drugs and clinical trials
(3) To hold meetings of Drugs Consultative Committee (DCC) and Drugs Technical Advisory Board (DTAB)
(4) All of the above
99. According to Drugs and magic Remedies Act 1954, a drug includes :
- (1) A medicine for the internal or external use of human beings or animals
(2) Any substance intended to be used for or in the diagnosis, cure, mitigation, treatment or prevention of disease in human beings or animals
(3) any article, other than food, intended to affect or influence in any way the structure or any organic function of the body of human beings or animals
(4) All of the above
100. The form of consent according to in sub-section (4) of Section 3 of Medical termination of Pregnancy Act, 1970 and Rules 1975 is given in :
- (1) Form A (2) Form B (3) Form C (4) Form D

Ph.D/URS/M.Phil 2018 Pharmaceutical Science Entrance Test Answer Key

S.No	Set-A	Set-B	Set-C	Set-D
1	4	4 ✓	2	1
2	2	2 ✓	1	4
3	1	1 ✓	2	2
4	2	3 ✓	3	4
5	3	4 ✓	1	1
6	1	2 ✓	3	3
7	2	1 ✓	4	2
8	1	3 ✓	3	4
9	3	1 ✓	1	1
10	4	4 ✓	2	2
11	3	4 ✓	1	4
12	4	3 ✓	2	3
13	2	1 ✓	3	2
14	1	2 ✓	4	1
15	3	4 ✓	2	3
16	2	4 ✓	1	2
17	3	2 ✓	3	4
18	4	1 ✓	4	1
19	4	2 ✓	3	3
20	3	1 ✓	4	2
21	2	1 ✓	4	4
22	1	4 ✓	2	3
23	2	2 ✓	3	1
24	3	4 ✓	1	2
25	1	1 ✓	2	4
26	3	3 ✓	4	4
27	4	2 ✓	3	2
28	3	4 ✓	2	1
29	1	1 ✓	1	2
30	2	2 ✓	4	1
31	4	4 ✓	4	2
32	3	2 ✓	3	1
33	2	1 ✓	1	2
34	1	2 ✓	2	3
35	3	3 ✓	4	1
36	2	1 ✓	4	3
37	4	2 ✓	2	4
38	1	1 ✓	1	3
39	3	3 ✓	2	1
40	2	4 ✓	1	2
41	4	1 ✓	4	1
42	2	2 ✓	2	4
43	1	3 ✓	1	2
44	3	4 ✓	2	3
45	4	2 ✓	3	1
46	2	1 ✓	1	3
47	1	3 ✓	2	4
48	3	4 ✓	1	1
49	1	3 ✓	3	3
50	4	4 ✓	4	2

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51	1	1 ✓	4	4
52	2	4 ✓	3	2
53	3	2 ✓	2	3
54	4	3 ✓	1	1
55	2	1 ✓	3	2
56	1	3 ✓	2	4
57	3	4 ✓	4	3
58	4	1 ✓	1	2
59	3	3 ✓	3	1
60	4	2 ✓	2	4
61	1	2 ✓	3	4
62	4	1 ✓	4	2
63	2	2 ✓	2	1
64	3	3 ✓	1	3
65	1	1 ✓	3	4
66	3	3 ✓	2	2
67	4	4 ✓	3	1
68	1	3 ✓	4	3
69	3	1 ✓	4	1
70	2	2 ✓	3	4
71	4	3 ✓	4	1
72	3	4 ✓	2	2
73	1	2 ✓	1	3
74	2	1 ✓	3	4
75	4	3 ✓	4	2
76	4	2 ✓	2	1
77	2	3 ✓	1	3
78	1	4 ✓	3	4
79	2	4 ✓	1	3
80	1	3 ✓	4	4
81	4	4 ✓	1	4
82	2	2 ✓	4	2
83	3	3 ✓	2	1
84	1	1 ✓	4	2
85	2	2 ✓	1	3
86	4	4 ✓	3	1
87	3	3 ✓	2	2
88	2	2 ✓	4	1
89	1	1 ✓	1	3
90	4	4 ✓	2	4
91	1	4 ✓	1	3
92	4	3 ✓	4	4
93	2	2 ✓	2	2
94	4	1 ✓	3	1
95	1	3 ✓	1	3
96	3	2 ✓	3	2
97	2	4 ✓	4	3
98	4	1 ✓	1	4
99	1	3 ✓	3	4
100	2	2 ✓	2	3

W. P. S. J.
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