

BOOKLET NO.

212

DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE ASKED TO DO SO

TBC : AKG-AP-PHARMACEUTICS-17

Time Allowed : 2 Hours]

[Maximum Marks : 100

INSTRUCTIONS

1. **IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS BOOKLET DOES NOT HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET.**
2. You have to enter your Roll Number on the Test Booklet in the Box provided alongside. **DO NOT** write anything else on the Test Booklet.
3. This Test Booklet contains **100** items (questions). You will select the response which you want to mark on the Answer Sheet. In case you feel that there is more than one correct response, mark the response which you consider the best. In any case, choose **ONLY ONE** response for each item.
4. You have to mark all your responses **ONLY** on the separate Answer Sheet provided. No erasing/correction fluid is allowed.
5. All items carry equal marks.
6. Before you proceed to mark in the Answer Sheet the response to various items in the Test Booklet, you have to fill in some particulars in the Answer Sheet as per instructions sent to you with your Admission Certificate.
7. After you have completed filling in all your responses on the Answer Sheet and the examination has concluded, you should hand over to the Invigilator **only the Answer Sheet**. You are permitted to take away with you the Test Booklet.
8. Sheets for rough work are appended in the Test Booklet at the end.
9. **Penalty for wrong answers :**
THERE WILL BE PENALTY (NEGATIVE MARKING) FOR WRONG ANSWERS MARKED BY A CANDIDATE IN THE OBJECTIVE TYPE QUESTION PAPERS.
 - (i) There are four alternatives for the answers to every question. For each question for which a wrong answer has been given by the candidate, **one fourth (0.25)** of the marks assigned to that question will be deducted as penalty.
 - (ii) If a candidate gives more than one answer, it will be treated as a **wrong answer** even if one of the given answer happen to be correct and there will be same penalty as above for that question.
 - (iii) If a question is left blank i.e. no answer is given by the candidate, there will be **no penalty** for that question.
10. Use and carrying of Mobile Phone and Electronic Gadget is prohibited in Examination Hall.

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1. In a prescription 'Direction to the Pharmacist' is called as :

(A) Superscription

(B) Inscription

(C) Subscription

(D) Signatura

2. The term Lavigation is used in :

(A) Size reduction in small scale preparation of ointments

(B) Size reduction in small scale preparation of powders

(C) Size reduction in large scale preparation of colloids

(D) None of the above

3. Which of the following is *not* an example of Oleaginous Base ?

(A) White petrolatum

(B) Hydrophilic petrolatum

(C) White ointment

(D) Yellow ointment

4. In gels, the term 'magma' is referred to as :

(A) Single-phase gel

(B) Two-phase gel

(C) Jellies

(D) Gels having low viscosity

5. 'Caulking gun' system is used for filling of :

- (A) Ointment jars
- (B) Ointment bottles
- (C) Ointment tubes
- (D) Both (A) and (B)

6. Pyroxilin is present only in :

- (A) Liniments
- (B) Collodions
- (C) Extracts
- (D) Lotions

7. Bentonite is the silicate of :

- (A) Mg
- (B) Al
- (C) Ca
- (D) C

8. Alkaloidal incompatibility is an example of :

- (A) Physical
- (B) Chemical
- (C) Therapeutic
- (D) None of the above

9. Number of meshes in a length of 25.4 mm (i.e. 1 inch), in each direction is known as :

- (A) Sieve number
- (B) Sieve diameter
- (C) Nominal size aperture
- (D) None of the above

10. The temperature which is given by a heat balance between the initial unsaturated vapor-gas mixture and the final saturated mixture at thermal equilibrium is known as :

- (A) Dry bulb temperature
- (B) Wet bulb temperature
- (C) Adiabatic saturation temperature
- (D) Enthalpy

11. When the value of the Reynolds number is less than 2000, the type of flow is :

- (A) Streamline
- (B) Transition
- (C) Turbulent
- (D) None of the above

12. Pearlite used as filter aid, which is :

- (A) Silica and aluminium silicate
- (B) Charcoal
- (C) Kaolin
- (D) Gelatin

13. The ϵ (emissivity) of a black body is :

- (A) 1.0
- (B) 1.5
- (C) 2.0
- (D) 0.5

14. Grade 5 of sintered glass filters are used for :

- (A) Non-sterile filtration
- (B) Sterile filtration
- (C) Both (A) and (B)
- (D) None of the above

15. Ball mill works on the principle of :

- (A) Impact
- (B) Attrition
- (C) Compression
- (D) Impact and Attrition both

16. Movement of particles during size separation can be enhanced by :

- (A) Mixing
- (B) Attrition
- (C) Gravitation
- (D) Agitation

17. According to Rittinger theory :

- (A) Energy used in crack propagation is proportional to the new crack length produced
- (B) Energy used in deforming a set of particles of equivalent shape is proportional to the ratio of change of size
- (C) Energy required in a size reduction process is proportional to the new surface area produced
- (D) All of the above

18. Latent heat of vaporization is the specific enthalpy change associated with :

- (A) Drying
- (B) Filtration
- (C) Evaporation
- (D) None of the above

19. Which medium is more effective for thermal radiation ?

- (A) Air
- (B) Vacuum
- (C) Water
- (D) Insulated with cotton

20. Condensation occurs when a saturated vapor comes in contact with a surface whose temperature is :

- (A) Less than the saturation temperature
- (B) Greater than the saturation temperature
- (C) Neither greater than nor less than the saturation temperature
- (D) None of the above

21. Most abundantly present immunoglobulin in the body is :

- (A) IgG
- (B) IgM
- (C) IgA
- (D) IgD

22. *Staphylococcus aureus* is an example of :

- (A) Gram positive bacteria
- (B) Gram negative bacteria
- (C) Rickettsias
- (D) Mycoplasm

23. Gram staining is also known as :

- (A) Acid fast staining
- (B) Negative staining
- (C) Differential staining
- (D) Simple staining

24. Which medium is best suited for testing of *Bacillus subtilis* ?

- (A) Soyabean casein digest medium
- (B) Empirical medium
- (C) Fluid thioglycolate medium
- (D) Alternate fluid thioglycolate medium

25. Turbid or cloudy solutions are assayed by :

- (A) Turbidimetric method
- (B) Cylinder plate method
- (C) Cup and plate method
- (D) None of the above

26. Nutrient medium consisting of water, beef extract, peptone protein supplement is known as :

- (A) Simple medium
- (B) Nutrient broth
- (C) Complex medium
- (D) Empirical medium

27. To confirm the efficiency of radiation sterilization, the biological indicator used is :

- (A) *Bacillus subtilis*
- (B) *Bacillus pumilis*
- (C) *Clostridium sporogenes*
- (D) *Candida albicans*

28. Rideal-walker coefficient for grade 2 disinfectant is :

- (A) 15
- (B) 10
- (C) 12
- (D) 5

29. Schick test works on the principle of :

- (A) Radioimmuno assay
- (B) Complexation reaction
- (C) Toxin neutralization
- (D) Agglutination

30. In production of vitamin B₁₂ by fermentation, the strain used is :

- (A) *Clostridium butylicum*
- (B) *Ashby gossypii*
- (C) *Presdomonas denitrificans*
- (D) *Salmonella typhi*

31. What is prophylactic disinfection ?

- (A) Pasteurization of milk
- (B) Disinfection of infected material
by removal of patient to hospital
- (C) Carried out during course of
patient's illness
- (D) None of the above

32. Killed, polio vaccine is :

- (A) Sabin vaccine
- (B) Salk vaccine
- (C) BCG vaccine
- (D) TAB vaccine

33. Schedule V stands for :

- (A) List of drugs marketed under
generic names only
- (B) Particulars to be shown in
manufacturing, raw materials
and analytical records of drugs
- (C) Standards for patent or
proprietary medicines
- (D) Standards for cosmetics

34. Schedule P1 stands for :

- (A) List of dyes, pigments, colors
and pigments permitted in
cosmetics and soaps
- (B) Life period of drugs
- (C) Standard for medical devices
- (D) Pack size of drugs

35. Licenses which are made in Form 24-A and issued in Form 25-A are :

- (A) Repackaging licenses
- (B) New drug license
- (C) Loan license
- (D) None of the above

36. Sera, solutions, toxins are regulated under :

- (A) Schedule C
- (B) Schedule Y
- (C) Schedule E1
- (D) Schedule FF

37. Wholesale of drugs specified in schedule X is issued under form :

- (A) 21A
- (B) 20G
- (C) 25B
- (D) 24F

38. Poison Act was passed in :

- (A) 1921
- (B) 1952
- (C) 1982
- (D) 1919

39. According to Medical Termination of Pregnancy Act pregnancy cannot be terminated by a registered medical practitioner :

- (A) When length of pregnancy does not exceed 12 weeks
- (B) When length of pregnancy exceeds 12 months but does not exceed 16 weeks
- (C) When length of pregnancy exceed 12 weeks but does not exceed 20 weeks
- (D) When continuation of pregnancy involve serious risk to life of pregnant woman

40. Which of the following diseases comes under Schedule J ?

- (A) Glaucoma
- (B) Malaria
- (C) Diabetes
- (D) None of the above

41. Standard for disinfectant fluid comes under :

- (A) Schedule O
- (B) Schedule R
- (C) Schedule N
- (D) Schedule V

42. Hargen's gas bearing electro-dynamometer is used to monitor :

- (A) Thyrotrophic behavior
- (B) Viscoelastic behavior
- (C) Viscosity
- (D) Both (A) and (B)

43. Cold compression method is used for preparation of :

- (A) Ointments
- (B) Suppositories
- (C) Pessaries
- (D) Enema

44. Which one of the following is *not* a hard wax ?

- (A) Carnauba wax
- (B) Candeilia wax
- (C) Ozokerite wax
- (D) Hard paraffin

45. The lipstick defect in which it appears dull is called as :

- (A) Streaking
- (B) Sweating
- (C) Bleeding
- (D) Blooming

46. What is the use of selenium sulfide in shampoos ?
- (A) Surfactant
 - (B) Anti-dandruff agent
 - (C) Conditioning agent
 - (D) Foam booster
47. Draize test is used for which of the following for a shampoo ?
- (A) Skin irritation
 - (B) Skin sensitivity
 - (C) Foamibility
 - (D) Preservative activity
48. Color of calamine is due to :
- (A) Ferrous sulfate
 - (B) Ferrous oxide
 - (C) Ferric oxide
 - (D) Calcium oxide
49. Honeywill atlas is the common name of :
- (A) Spans
 - (B) Tweens
 - (C) Ploxaloids
 - (D) Macrogels
50. Wursters process means :
- (A) Pan coating
 - (B) Coacervation
 - (C) Air suspension
 - (D) Solvent evaporation

51. What is the value of Hauser's ratio for good flow ?

- (A) 1.05-1.18
- (B) 1.14-1.20
- (C) 1.22-1.26
- (D) 1.26-1.30

52. Triclosan is used as :

- (A) Anti-bacterial
- (B) Binding agent
- (C) Preservative
- (D) Anticaries

53. An apparatus used to measure thixotropy is :

- (A) Manometer
- (B) Rotameter
- (C) Sorptometer
- (D) Penemeter

54. Wool fat is :

- (A) Hydrous lanolin
- (B) Anhydrous lanolin
- (C) Bees wax
- (D) Hard paraffin

55. Draves test is associated with measuring the efficiency of :

- (A) Detergents
- (B) Wetting agents
- (C) Suspending agents
- (D) Adsorbent

56. Mailard reaction is shown by :

- (A) Spray dried lactose
- (B) Anhydrous lactose
- (C) Hydrous lactose
- (D) Starch

57. In tablet defects, the material adhering to die wall is referred as :
- (A) Capping
 - (B) Picking
 - (C) Sticking
 - (D) Mottling
58. The smallest capsule size for human consumption is :
- (A) 0
 - (B) 1
 - (C) 3
 - (D) 5
59. A water insoluble coating agent used in microencapsulation is :
- (A) Polyamides
 - (B) Polyvinyl alcohol
 - (C) Polyacrylic acid
 - (D) PVP
60. Water attack test is performed for :
- (A) General purpose soda lime
 - (B) Borosilicate
 - (C) Treated soda lime
 - (D) Soda lime
61. A propellant used in aerosols is selected on the basis of :
- (A) Density
 - (B) Vapor pressure
 - (C) Boiling point
 - (D) All of the above
62. A parenteral preparation should have a pH of :
- (A) 6.9
 - (B) 7.0
 - (C) 7.4
 - (D) 7.8

63. Isoelectric point of type B gelatin

is :

(A) 3.7

(B) 4.7

(C) 5.7

(D) 5.0

64. Sublingual administration of drugs

involve :

(A) Swallowing the tablet

(B) Chewed the tablet

(C) Beneath the tongue

(D) All of the above

65. AUC reflect the :

(A) Amount of active drug which reaches the systematic circulation

(B) Amount of active drug which is absorbed

(C) Amount of active drug which is protein bounded

(D) Amount of active drug which is metabolized

66. Insecticide Act was passed in the year :

(A) 1976

(B) 1950

(C) 1949

(D) 1968

67. Which equation is used to predict the stability of a drug product at room temperature from experiments at accelerated temperatures ?

- (A) Stokes equation
- (B) Arrhenius equation
- (C) Michaelis-Menten equation
- (D) Hixson-Crowell equation

68. Cytochromes P450 (CYPs) are :

- (A) Proteins of the super family containing heme as a cofactor
- (B) In this P is a pigment which is absorbed at 450 nm
- (C) Both (A) and (B)
- (D) None of the above

69. Orosomucoid is also known as :

- (A) Hemoglobin
- (B) Human serum albumin
- (C) α_1 -Acid glycoprotein
- (D) None of the above

70. Which equation describes the rate of drug dissolution from a tablet ?

- (A) Fick's law
- (B) Henderson-Hasselbalch equation
- (C) Michaelis-Menten equation
- (D) Noyes-Whitney equation

71. Protein act as buffer due to :

- (A) Amphiphatic nature
- (B) Acidic nature
- (C) Basic nature
- (D) Colloid nature

72. Passive diffusion is described by :
- (A) Ficks first law
 - (B) Ficks second law
 - (C) Ficks third law
 - (D) Ficks fourth law
73. Xenobiotics are considered :
- (A) Endogenous
 - (B) Exogenous
 - (C) Inorganic poisons
 - (D) Toxins
74. Cellulose acetate phthalate is an agent used in sugar coating of tablet as :
- (A) Seal coating
 - (B) Sub coating
 - (C) Syruping
 - (D) Polishing
75. Rhusma was the firstly reported :
- (A) Nail preparation
 - (B) Shampoo
 - (C) Hair gel
 - (D) Depilatory
76. Widal test is used for the detection of :
- (A) Rickettsial diseases
 - (B) Typhoid fever
 - (C) Syphilis
 - (D) Malaria
77. What is the duration of sweat collection in gravimetric method of evaluation of anti-perspirants ?
- (A) 20 minutes
 - (B) 30 minutes
 - (C) 40 minutes
 - (D) 50 minutes

78. The correct equivalent for -10°C is :

(A) -10°F

(B) $+22^{\circ}\text{F}$

(C) -18°F

(D) $+14^{\circ}\text{F}$

79. The loading dose of a drug is based upon the :

(A) Time taken for complete elimination

(B) Percentage of drug excreted unchanged in urine

(C) Percentage of drug bound to plasma protein

(D) Apparent volume of distribution and the desired drug concentration in plasma

80. HLB system is used to classify :

(A) Surfactants

(B) Preservatives

(C) Antioxidants

(D) Sequestering agents

81. The title of Netaji Subhash Chandra Bose unfinished book is :

(A) Indian Abroad

(B) My Freedom

(C) An Indian Pilgrim

(D) A Truth

82. In which year the Wildlife Protection Act was introduced in India ?

(A) 1972

(B) 1980

(C) 1960

(D) 1965

83. Which one of the following is the Chairman of the National Development Council ?

- (A) President of India
- (B) Finance Minister of India
- (C) Prime Minister of India
- (D) Vice-President of India

84. Which Planet is referred to as a "Dwarf Planet" ?

- (A) Mars
- (B) Mercury
- (C) Pluto
- (D) Saturn

85. Which mountain form boundary between Spain and France ?

- (A) Pyrenees
- (B) Andes
- (C) Rockies
- (D) Jura

86. Which of the following has been described as the "Soul of the Indian Constitution" ?

- (A) The Parliament
- (B) Directive Principles of State Policy
- (C) Fundamental Rights
- (D) Right to Constitutional Remedies

87. Council of Ministers is collectively responsible for :

- (A) President
- (B) Prime Minister
- (C) Parliament
- (D) Lok Sabha

88. Who was the permanent President of the Constituent Assembly ?

- (A) Sachidananda Sinha
- (B) Dr. B.R. Ambedkar
- (C) Jawahar Lal Nehru
- (D) Dr. Rajendra Prasad

89. Which of the following articles deals with the Scheduled and Tribal Areas ?

- (A) Article 311
- (B) Article 203
- (C) Article 220
- (D) Article 244

90. The name of the great maestro of Indian music, "Ustad Bismillah Khan" is related to :

- (A) Flute
- (B) Sarod
- (C) Shehnai
- (D) Tabla

91. "Uhl" is a tributary of :

- (A) Satluj
- (B) Ravi
- (C) Beas
- (D) Yamuna

92. Who said about Spiti that, "This place is no place for men" ?

- (A) A.O. Hume
- (B) Lord Reading
- (C) Rudyard Kipling
- (D) James Peter

93. Pajhota area in Sirmour district is now the part of tehsil :

- (A) Pacchad
- (B) Rajgarh
- (C) Renuka
- (D) Shilai

94. Shilaroo Sports Complex is in district :

- (A) Solan
- (B) Sirmour
- (C) Kinnaur
- (D) Shimla

95. "Giri" Ganga stream rises at :

- (A) Kuppar Peak
- (B) Churdhar Peak
- (C) Narkanda Peak
- (D) Kufri Peak

96. "Chandra" and "Bhaga" rivers meet at :

- (A) Koksar
- (B) Udaipur
- (C) Tandi
- (D) Mindhal

97. Kinnaur was merged in Himachal Pradesh as the district.

(A) 6th

(B) 7th

(C) 8th

(D) 3rd

98. Gondha Fort (Castle) is located in district :

(A) Kinnaur

(B) Lahaul-Spiti

(C) Sirmour

(D) Shimla

99. In Himachal Pradesh Dum (Dumh) was parallel to :

(A) Begaar Custom

(B) Non-cooperation

(C) Land Tax

(D) Reet Custom

100. Pong Dam on the river Beas in district Kangra is also known as :

(A) Maharana Pratap Sagar Dam

(B) Maharaja Ranjit Singh Dam

(C) Maharaja Sansar Chand Dam

(D) Maharaja Susharma Chand Dam