

Booklet No. 88200086

**JELET—2018**

**For PHARMACY CANDIDATES**

Time : 2 Hours

Full Marks : 100

***Instructions***

1. All questions are of objective type having four answer options for each. Only one option is correct. Correct answer will carry 1 mark. In case of incorrect answer or any combination of more than one answer,  $\frac{1}{2}$  mark will be deducted.
2. Questions must be answered on OMR sheet by darkening the appropriate bubble marked A, B, C or D.
3. Use only Black/Blue ball point pen to mark the answer by complete filling up of the respective bubbles.
4. Do not make any stray mark on the OMR.
5. Write question booklet number and your roll number carefully in the specified locations of the OMR. Also fill appropriate bubbles.
6. Write your name (in block letter), name of the examination centre and put your full signature in appropriate boxes in the OMR.
7. The OMRs will be processed by electronic means. Hence it is liable to become invalid if there is any mistake in the question booklet number or roll number entered or if there is any mistake in filling corresponding bubbles. Also it may become invalid if there is any discrepancy in the name of the candidate, name of the examination centre or signature of the candidate vis-a-vis what is given in the candidate's admit card. The OMR may also become invalid due to folding or putting stray marks on it or any damage to it. The consequence of such invalidation due to incorrect marking or careless handling by the candidate will be sole responsibility of candidate.
8. Candidates are not allowed to carry any written or printed material, calculator, docu-pen, log table, any communication device like mobile phones etc. inside the examination hall. Any candidate found with such items will be reported against and his/her candidature will be summarily cancelled.
9. Rough Work must be done on the question paper itself. Additional blank pages are given in the question paper for Rough Work.
10. Hand over the OMR to the invigilator before leaving the Examination Hall.

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**SPACE FOR ROUGH WORK**

1. Strontium chloride is used as
  - (A) Astringent
  - (B) Antiseptic
  - (C) Desensitizing agent
  - (D) Deactivating agent
  
2. How many volumes of the latest edition of IP (2017) are there?
  - (A) Five
  - (B) Six
  - (C) Four
  - (D) Three
  
3. Sodium bicarbonate is used in the treatment of
  - (A) Systemic acidosis
  - (B) Systemic alkalosis
  - (C) Gastric ulcer
  - (D) Duodenal ulcer
  
4. Which one is Gram-negative cocci?
  - (A) *Micrococcus luteus*
  - (B) *Escherichia coli*
  - (C) *Neisseria gonorrhoeae*
  - (D) *Vibrio cholerae*
  
5. Lead acetate moistened cotton is used for the limit test of
  - (A) Iron
  - (B) Chloride
  - (C) Arsenic
  - (D) Sulphate
  
6. Agar-agar is obtained from
  - (A) marine drive
  - (B) marine fish
  - (C) marine bacteria
  - (D) marine algae
  
7. Gutzeit apparatus is used to detect which impurities in pharmaceuticals?
  - (A) Ba
  - (B) Pb
  - (C) Zn
  - (D) As
  
8. Blood dyscrasis is occurred due to the side effects of
  - (A) Tetracycline
  - (B) Ciprofloxacin
  - (C) Chloramphenicol
  - (D) Rifampicin

9. The colour of Tr. Card. Co. is red, due to the presence of
- (A) Amaranth (B) Zn  
(C) Red oxide (D) Cardamom
10. Sun ray is good sterilizing agent due to
- (A) X-ray (B)  $\gamma$ -ray  
(C) VIBGYOR (D) UV-ray
11. Mendel's point contains
- (A)  $I_2$  (B) Zn  
(C) Sn (D) Hg
12. Rate of drug dissolution from a tablet is related with
- (A) Fick's law (B) Henderson-Hasselbalch equation  
(C) Noyes-Whitney equation (D) Michaelis-Menten equation
13. Disinfectant property of a solution can be determined by
- (A) Friedel-Craft Reaction (B) Cannizzaro Reaction  
(C) Rideal-Walker Test (D) Zeihl Neelson Method
14. Electrophoresis is a process by which we can separate out
- (A) Protein (B) Lipid  
(C) Urine (D) Carbohydrate
15. Pore size of Membrane filter is
- (A)  $0.75 \mu$  (B)  $0.2 \mu$   
(C)  $0.4 \mu$  (D)  $1 \mu$
16. Occusart, a dosage form device is placed in
- (A) tongue (B) rectum  
(C) vagina (D) conjunctiva

17. HEPA filter in Laminar Air Flow Hood contains

- (A) 4 types of filter (B) 3 types of filter  
(C) 2 types of filter (D) 1 type of filter

18. The drug extensively used for the treatment of both Glucoma and Hypertension is

- (A) Atropine sulphate (B) Pilocarpine nitrate  
(C) Acetazolamide (D) Propanolol

19. Which one is dimercaprol?

- (A) BAL (B) GABA  
(C) EDTA (D) BHC

20. The primary organ for excretion of most drugs is

- (A) Kidney (B) Liver  
(C) Lungs (D) Skin

21. Which one is rod-shaped bacterium?

- (A) *Vibrio cholerae* (B) *Staphylococcus aureus*  
(C) *Escherichia coli* (D) *Neisseria gonorrhoeae*

22. Water for injection differs from sterile distilled water as it is free from

- (A) CO<sub>2</sub> (B) pyrogen  
(C) living bacteria (D) preservative

23. The colour of KI is

- (A) yellow (B) brown  
(C) white (D) red

24. Cobalt is a constituent of

- (A) Folic acid (B) Vitamin B<sub>12</sub>  
(C) Biotin (D) Vitamin K

25. Diacetyl morphine is
- (A) Heroin (B) Heroin  
(C) Codeine (D) Noscopine
26. The main physiological buffer in the blood is
- (A) NaCl (B) Acetate  
(C) Phosphate (D) Bicarbonate
27. Which one is Xanthine oxidase inhibitor?
- (A) Purine (B) Allopurinol  
(C) Propanolol (D) Timolol
28. UV absorption range is
- (A) 200 nm–400 nm (B) 200 nm–800 nm  
(C) 400 nm–700 nm (D) 300 nm–500 nm
29. Which form of alkaloids is more active?
- (A) Meso-form (B) Dextro-form  
(C) Levo-form (D) Racemic-form
30. Organisms that can grow on organic matter from dead plants and animals are called
- (A) Parasites (B) Mesophytes  
(C) Saprophytes (D) Epiphytes
31. Which one is used as an Anti-sterility factor?
- (A) Vitamin K (B) Vitamin E  
(C) Vitamin D (D) Vitamin P
32. Omega-3-fatty acid have which of the following functions?
- (A) Prevents Osteoarthritis (B) Prevents Night-blindness  
(C) Prevents Parkinsonism (D) Prevents Arthrosclerosis

33. The reason of incorporation of vitamin C along with iron preparation is
- (A) for sustained action (B) conjugation  
(C) avoidance of constipation (D) Helps conversion and absorption
34. Follicle-Stimulating Hormone (FSH) and Interstitial-Cell Stimulating Hormone (ICSH) are secreted from the
- (A) Posterior Pituitary (B) Hypothalamus  
(C) Testis (D) Anterior Pituitary
35. Penicillin is obtained from
- (A) Mould (B) Bacteria  
(C) Protozoa (D) Yeast
36. Liebermann-Burchard test is used for the detection of
- (A) Alkaloid (B) Steroid  
(C) Protein (D) Carbohydrate
37. The ratio of Sulphamethoxazole and Trimethoprim is
- (A) 1 : 5 (B) 2 : 5  
(C) 3 : 5 (D) 5 : 1
38. Which one of the formulation is a pressurized drug delivery system?
- (A) Nanosomes (B) Aerosols  
(C) Implants (D) Liposomes
39. Which one is fibrinolytic/antiplatelet activity?
- (A) Aspirin (B) Paracetamol  
(C) Phenylbutazone (D) Pethidine
40. Sodium metabisulphate is used as
- (A) Buffer (B) Antiemetic  
(C) Antioxidant (D) Antiulcer

41. Nalorphine is the antagonist of
- (A) Opium (B) Morphine  
(C) Codeine (D) Thebaine
42. Dengue is caused by
- (A) Prion (B) DNA virus  
(C) RNA virus (D) Mycoplasma
43. Which one is not dopaminergic congener?
- (A) Dopamine (B) L-dopa  
(C) Carbidopa (D) 5-HT
44. The patient cannot tolerate enalapril. Which of the following can be substituted?
- (A) Omeprazole (B) Losartan  
(C) Rosiglitazone (D) Clofibrate
45. From which layer of intestine, the surgical catgut is obtained?
- (A) Mucous layer (B) Muscular layer  
(C) Submucosal layer (D) Serous layer
46. Famotidine acts as
- (A) H<sub>1</sub>-histamine antagonist (B) H<sub>2</sub>-histamine antagonist  
(C) Proton pump inhibitor (D) H<sub>1</sub>-agonist
47. Which one is the trophic hormone of testosterone?
- (A) TSH (B) GTH  
(C) STH (D) ACTH
48. An abrasive used in dentifrices is
- (A) Dicalcium phosphate (B) Sodium carboxymethylcellulose  
(C) Sodium lauryl sulphate (D) Dioctyl sodium sulfosuccinate



49. Ergot is
- (A) fruit (B) seed  
(C) bacteria (D) fungus
50. A plasticizer and a high boiling point solvent used in the preparation of nail lacquers is
- (A) butyl stearate (B) ethyl lactate  
(C) ethyl alcohol (D) acetone
51. Oxytotic effect means
- (A) smooth muscle constrictor (B) uterine smooth muscle relaxant  
(C) uterine smooth muscle constrictor (D) cardiac smooth muscle relaxant
52. A co-solvent used in the preparation of parenteral product is
- (A) Benzyl alcohol (B) Methyl alcohol  
(C) Dimethyl acetamide (D) Phenol
53. How many pairs of cranial nerve we have?
- (A) 10 pairs (B) 15 pairs  
(C) 20 pairs (D) 12 pairs
54. The ratio of the void volume to the bulk volume of the packing of the powder is called as
- (A) Porosity (B) True density  
(C) Granular density (D) Bulk density
55. Point out the relationship between Atropine and Pilocarpine.
- (A) Agonist (B) Antagonist  
(C) Both (A) and (B) (D) Obtained from same plant
56. The half-life for a zero-order reaction is calculated using
- (A)  $t_{1/2} = 0.693 / K$  (B)  $t_{1/2} = 2.303 / K$   
(C)  $t_{1/2} = 1 / aK$  (D)  $t_{1/2} = a / 2K$

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57. Colchicine induces
- (A) Gout (B) Polyploidy  
(C) Urate crystal elimination (D) Both (B) and (C)
58. Nephelometric measurements are most sensitive for
- (A) clear solution (B) concentrated solution  
(C) thick suspensions (D) very dilute suspensions
59. Morphologically, senna leaflet can be identified through
- (A) Acute apex  
(B) Lanceolate shape  
(C) Acute apex and asymmetrical leaf base  
(D) Reticulate venation
60. Serum sample of a patient shows elevated levels of  $\gamma$ -glutamyl transferase. The patient could be suffering from
- (A) Kidney disorder (B) Liver disease  
(C) Parkinson's disease (D) Myocardial infarction
61. Anthraquinone glycoside is used as
- (A) Cardiotonic (B) Purgative  
(C) Diuretic (D) Antidiabetic
62. The Chairman of the Drugs Technical Advisory Board is
- (A) the Drugs Controller of India  
(B) the Director, Central Drugs Laboratory, Kolkata  
(C) the President, Pharmacy Council of India  
(D) the Director General of Health Services
63. Keller-Kiliani test is used to detect
- (A) Deoxysugar (B) Tannin  
(C) Steroidal saponin (D) Resin
64. A macrolide antibiotic used as a powerful immunosuppressive agent is
- (A) Erythromycin (B) Azithromycin  
(C) Tacrolimus (D) Clarithromycin

65. Which one is capsular fruit with axile placentation?
- (A) Cardamom (B) Datura  
(C) Coriander (D) Senna pod
66. The family of Glycyrrhiza is
- (A) Solanaceae (B) Apocynaceae  
(C) Leguminosae (D) Leguminosaceae
67. Mixing of semisolids is carried out using
- (A) double-cone mixer (B) rotating cube mixer  
(C) planetary mixer (D) fluidized bed mixer
68. Which one is nasal decongestant?
- (A) Papaverine (B) Reserpine  
(C) Ephedrine (D) Vasicine
69. If the Carr's index of a powder is 10%, then the type of powder flow is
- (A) Poor (B) Excellent  
(C) Very poor (D) Good
70. Which one of the following constituents is antiarrhythmic?
- (A) Cocaine (B) Strychnine  
(C) Vincristine (D) Quinidine
71. Which of the following is likely to be a good target for designing antihypertensive drug?
- (A) H<sub>2</sub>-histamine receptor (B) Proton pump  
(C) CTZ (D) α<sub>2</sub>-adrenergic receptor
72. Zn is used with ORS. Why?
- (A) Astringent (B) Constipating  
(C) Re-epithelialization of mucous lining (D) Antiseptic

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73. One of the standards for uncoated tablets as per IP is
- (A) Shape (B) Friability  
(C) Size (D) Uniformity of weight
74. Why is Tetracycline contraindicated with milk and milk products?
- (A) Oxidation (B) Reduction  
(C) Chelation (D) Hydroxylation
75. Neutral thioaliphatic amino acid found in protein is
- (A) Lysine (B) Valine  
(C) Cysteine (D) Leucine
76. 1 gm is equal to
- (A) 5 gr (B) 10 gr  
(C) 15 gr (D) 15.432 gr
77. Which one of the following is poison nut?
- (A) Flax seed (B) Bahera  
(C) Gokhru (D) Nuxvomica
78. Pyrogen is
- (A) Bacterial exotoxin (B) Bacterial liposaccharide  
(C) Bacterial polysaccharide (D) Gram-negative bacterial endotoxin
79. DDS is used in the treatment of
- (A) STDs (B) Viral diseases  
(C) Leprosy (D) Malaria
80. Vaccine is
- (A) lysozyme (B) antibody containing preparation  
(C) bacterial endotoxin (D) antigenic

81. An anticoagulant glycosaminoglycan is
- (A) Warfarin (B) Heparin  
(C) Vitamin K (D) Aspirin
82. Family DOT procedure is used for the treatment of
- (A) Leprosy (B) HIV-AIDS  
(C) TB (D) STDs
83. In the preparation of ointments, macrogols are used as
- (A) Water soluble base (B) Hydrocarbon base  
(C) Absorption base (D) Oleogenous base
84. What is the concentration of NaCl required to make 1% solution of Cocaine HCl isotonic with blood plasma?
- Freezing point of 1% w/v solution of NaCl is  $-0.576^{\circ}\text{C}$  and freezing point of 1% w/v Cocaine HCl is  $-0.09^{\circ}\text{C}$ .
- (A) 0.746% w/v (B) 0.9% w/v  
(C) 0.5% w/v (D) 0.373% w/v
85. Cholelithiasis is a disorder of
- (A) Gall bladder (B) Pancreas  
(C) Spleen (D) Testes
86. Hyperuricaemia is associated with the abnormal metabolism of
- (A) Pyrimidine (B) Purine  
(C) Riboflavin (D) Thiamine
87. Mechanism of moist heat sterilization of killing of bacteria is
- (A) DNA core alteration (B) protein precipitation  
(C) oxidation (D) alkylation

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88. A technician is attempting to sterilize a plug of cotton in hermetically sealed condition in a glass bottle by autoclaving. Which of the following statements is correct?
- (A) It should be sterilized at 115–118 °C for 45 minutes.
  - (B) It should be sterilized at 121–124 °C for 15 minutes at 15 lbs/sq. inch pressure.
  - (C) Sterilization cannot be achieved.
  - (D) It should be autoclaved at 126–129 °C with saturated steam for 10 minutes.
89. Chlorthalidone is
- (A) diuretic
  - (B) antidiabetic
  - (C) antiemetic
  - (D) antirheumatic
90. List of diseases and ailments which a drug may not purport to prevent or cure or make claims to prevent or cure under the Drugs and Cosmetics Rule 1945 is given under
- (A) Schedule-K
  - (B) Schedule-J
  - (C) Schedule-M
  - (D) Schedule-S
91. Which one possesses antioxidant activity?
- (A) Polyphenol
  - (B) Phenol
  - (C) Catechol
  - (D) Timolol
92. Moisture content of pharmaceuticals can be detected by
- (A) Desiccators
  - (B) Karl-Fischer Instrument
  - (C) Rotary vacuum Evaporator
  - (D) Lyophilizer
93. FT-IR analysis is done to detect the
- (A) Interaction study
  - (B) Compatibility study
  - (C) Incompatibility study
  - (D) Morphology study
94. A man is sterile means
- (A) Infertile
  - (B) Erectile dysfunction
  - (C) Improper fertilizations
  - (D) Proper spermatogenesis

95. Residue remaining after extraction is called
- (A) Menstrum (B) Rouphage  
(C) Marc (D) Mark
96. The shape of caplet is
- (A) spherical (B) triangular  
(C) oval (D) elongated
97. Clavulanic acid is used along with amoxycillin. Why?
- (A) For synergism  
(B) To minimize the dose  
(C)  $\beta$ -lactamase inhibitor  
(D) Thiazolidine ring protector
98. Biological products should be stored in
- (A) 0 °C  
(B) 20 °C  
(C) - 4 °C  
(D) 2-10 °C
99. Which one is not vector-borne disease?
- (A) Kala-azar  
(B) Filaria  
(C) Dengue  
(D) Chicken pox
100. Ryle's tube is used for the purpose of
- (A) urination  
(B) feeding  
(C) bronchoscopy  
(D) endoscopy

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SPACE FOR ROUGH WORK

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