

**Tripura University**

Suryamaninagar-799022, Tripura (W)

Name of the Examination

Written Test for the post of PHARMACIST

Name of the Candidate: _____

Registration No. _____

Roll No. _____

Date of Birth (in figure) : _____

(in word) _____

Signature of the Candidate _____

Date : _____

Signature of the Superintendent

Signature of the Invigilators

INSTRUCTIONS TO THE CANDIDATES

1. This exam is of 120 minutes duration and the Test Booklet cum answer sheet contains 68 questions. All questions are compulsory.
2. These 68 questions are divided into four sections (A, B, C and D) as per the details given below:
 - i. Section A consists of 50 (fifty) multiple-choice questions (four options with a single correct answer) (Question no. – 01 to 50). For each correct answer, the candidate will get 1 mark. No negative marking.
 - ii. Section B consists of 10 (Ten) questions (Question no. – 51 to 60): Very Short Answer Type Questions (Answer in one word/one sentence) = 10 Questions (2 marks each)
 - iii. Section C consists of 05 (five) questions (Question no. – 61 to 65) Short Answer Type Questions (Answer within 50 words) (3 marks each)
 - iv. Section D consists of 03 (Three) questions (Question no. – 66 to 68) Descriptive Answer Type Questions (Answer within 100 words) (5 marks each)
3. Maximum marks are 100.
4. Use a Blue/Black ballpoint Pen (as provided by the Centre) only for writing particulars on this page/marking answers on the Test Booklet cum Answer Sheet.
5. Rough work is to be done in the space provided for this purpose in the Test Booklet only. No additional sheets would be provided.
6. On completion of the exam, the candidate must hand over the Test Booklet cum Answer Sheet to the Invigilator before leaving the room/hall.
7. The candidates should ensure that the Test Booklet cum Answer Sheet is not folded. Do not make any stray marks on it. Do not write your Roll No. anywhere else except in the specified space in the Test Booklet cum Answer Sheet. The use of white fluid for correction is NOT permissible on it.
8. Each candidate must show on-demand his/her Admit Card to the Invigilator.
9. No candidate, without special permission of the Centre Superintendent or Invigilator, would leave his/her seat.
10. Use of an Electronic/Manual Calculator or Smart watch or any other electronic gadget is strongly prohibited.
11. The candidates are governed by all Rules and Regulations of the examination with regard to their conduct in the Examination Room/Hall. All cases of unfair means will be dealt with as per Rules and Regulations of this examination.
12. No part of the Test Booklet cum Answer Sheet shall be detached under any circumstances.
13. The candidates will write the Correct Test Booklet Number and Code as given in the Test Booklet cum Answer Sheet in the Attendance Sheet.

Section - A

Note: This section contains 50 (fifty) multiple choice questions and carry one mark each. Choose the correct answer. (50 x 1 = 50)

Please tick anyone in the box

1) In a code language, "PAINTER" is written as "RETNPJA". How is "GARDEN" written?

- | | | | |
|-----------|--------------------------|-----------|--------------------------|
| a) NEDGAR | <input type="checkbox"/> | b) NEDGRA | <input type="checkbox"/> |
| c) NEDRGA | <input type="checkbox"/> | d) ENDGRA | <input type="checkbox"/> |

2) Form a four-letter meaningful word using the first, sixth, seventh, and ninth letters of the given word TELEPROMPTER. The second last letter of the word will be the answer. If more than one four-letter word can be formed using the given letters then mark 'X' as the answer and if no such words can be formed then mark 'Y' as the answer.

- | | | | |
|------|--------------------------|------|--------------------------|
| a) P | <input type="checkbox"/> | b) R | <input type="checkbox"/> |
| c) X | <input type="checkbox"/> | c) Y | <input type="checkbox"/> |

3) A # B' means 'A is the brother of B'. 'A @ B' means 'A is the daughter of B'. 'A & B' means 'A is the husband of B'. 'A % B' means 'A is the wife of B'. If W % D # G @ B & M @ I, then how is D related to M?

- | | | | |
|--------------------|--------------------------|-----------|--------------------------|
| a) Father's father | <input type="checkbox"/> | b) Father | <input type="checkbox"/> |
| c) Grandson | <input type="checkbox"/> | d) Son | <input type="checkbox"/> |

4) Agasthyagama edge, which was seen in the news, belongs to which one of the following species?

- | | | | |
|----------------|--------------------------|--------------------|--------------------------|
| a) Snake | <input type="checkbox"/> | b) Kangaroo lizard | <input type="checkbox"/> |
| c) Wolf spider | <input type="checkbox"/> | d) Frog | <input type="checkbox"/> |

5) Which space organization recently announced 'DRACO Mission' to study satellite disintegration phenomenon?

a) European Space Agency (ESA)

b) Indian Space Research Organisation (ISRO)

c) China National Space Administration (CNSA)

d) Japan Aerospace Exploration Agency (JAXA)

6) Deep Grace Ekka, who recently announced her retirement, is associated with which sports?

a) Hockey

b) Cricket

c) Football

d) Table Tennis

7) 'Digital Detox' initiative, recently seen in the news, is associated with which state?

a) Kerala

b) Karnataka

c) Rajasthan

d) Maharashtra

8) Paise in a rupee but the revenue is increased by 10% only. Find the decrease percent in the amount taxed.

a) 12

b) 14

c) 16

d) none of these

9) Which of the following is a non-renewable resource?

a) Solar Energy

b) Wind Energy

c) Coal

d) Biomass

10) Which is the correct order of basicity for the following compounds? Ammonia, Aniline, Ethylamine, Benzylamine

- a) Ethylamine > Benzylamine > Ammonia > Aniline
- b) Benzylamine > Ethylamine > Ammonia > Aniline
- c) Aniline > Ammonia > Benzylamine > Ethylamine
- d) Ammonia > Aniline > Ethylamine > Benzylamine

11) Which type of compound undergoes Cannizzaro reaction?

- a) Ketones without α -hydrogen
- b) Aldehydes without α -hydrogen
- c) Aldehydes with α -hydrogen
- d) Ketones with α -hydrogen

12) Both Impact and attrition is the principle of:

- a) Fluid energy mill b) Disintegrator
- c) Cutter mill d) Ball mill

13) Antidot for Organophosphate poisoning:

- a) atropine b) pralidoxime (2-PAM)
- c) benzodiazepines d) All

14) Which one is the following glucose transports is the new drug target for the management of Type-2 diabetes mellitus:

- a) Sodium glucose linked transporter-2 (SGLT2)
- b) Glucose transporter-1 (GLUT1)
- c) Sodium glucose linked transporter-1 (SGLT1)
- d) Glucose transporter-2 (GLUT2)

15) What is the main bioactive compound in tea responsible for its antioxidant properties?

- | | | | |
|-----------------|--------------------------|----------------|--------------------------|
| a) Catechins | <input type="checkbox"/> | b) Caffeine | <input type="checkbox"/> |
| c) Theophylline | <input type="checkbox"/> | d) Theobromine | <input type="checkbox"/> |

16) Which type of trichomes is characteristic of the Datura leaf?

- | | | | |
|--------------------------------|--------------------------|-------------------------|--------------------------|
| a) Unicellular non-glandular | <input type="checkbox"/> | b) Bicellular glandular | <input type="checkbox"/> |
| c) Multicellular non-glandular | <input type="checkbox"/> | d) Stellate | <input type="checkbox"/> |

17) Which is a natural source of the glycoside salicin?

- | | | | |
|----------------|--------------------------|---------------|--------------------------|
| a) Willow bark | <input type="checkbox"/> | b) Aloe vera | <input type="checkbox"/> |
| c) Senna | <input type="checkbox"/> | d) Belladonna | <input type="checkbox"/> |

18) The mechanism of action of sulfonamide antibiotics is based on the inhibition of which enzyme?

- | | | | |
|-----------------------------|--------------------------|-------------------|--------------------------|
| a) Dihydrofolate reductase | <input type="checkbox"/> | b) DNA gyrase | <input type="checkbox"/> |
| c) Dihydropteroate synthase | <input type="checkbox"/> | d) RNA polymerase | <input type="checkbox"/> |

19) What is the major role of cytochrome P₄₅₀ enzymes in drug metabolism?

- | | | | |
|--------------------------|--------------------------|------------------------|--------------------------|
| a) Conjugation reactions | <input type="checkbox"/> | b) Oxidation reactions | <input type="checkbox"/> |
| c) Hydrolysis reactions | <input type="checkbox"/> | d) Reduction reactions | <input type="checkbox"/> |

20) What is the role of the imidazole ring in histamine H₂ receptor antagonists like ranitidine?

- | | |
|---|--------------------------|
| a) Blocks receptor activation | <input type="checkbox"/> |
| b) Enhances gastric acid secretion | <input type="checkbox"/> |
| c) Promotes histamine release | <input type="checkbox"/> |
| d) Stabilizes the receptor in its active form | <input type="checkbox"/> |

21) Which of the following drugs works by binding to bacterial 30S ribosomal subunits?

- | | | | |
|------------------|--------------------------|--------------------|--------------------------|
| a) Erythromycin | <input type="checkbox"/> | b) Tetracycline | <input type="checkbox"/> |
| c) Ciprofloxacin | <input type="checkbox"/> | d) Chloramphenicol | <input type="checkbox"/> |

22) Which of the following drugs acts as a serotonin reuptake inhibitor?

- | | | | |
|---------------|--------------------------|----------------|--------------------------|
| a) Fluoxetine | <input type="checkbox"/> | b) Propranolol | <input type="checkbox"/> |
| c) Morphine | <input type="checkbox"/> | d) Metformin | <input type="checkbox"/> |

23) In nucleophilic substitution reactions, which factor favours an S_N1 mechanism?

- | | |
|------------------------------------|--------------------------|
| a) Strong nucleophile | <input type="checkbox"/> |
| b) Polar aprotic solvent | <input type="checkbox"/> |
| c) Highly substituted alkyl halide | <input type="checkbox"/> |
| d) Low temperature | <input type="checkbox"/> |

24) Which of the following is the intermediate in the nitration of benzene?

- | | | | |
|-----------------------|--------------------------|--------------------------|--------------------------|
| a) Nitronium ion | <input type="checkbox"/> | b) Nitrobenzene | <input type="checkbox"/> |
| c) Benzyl carbocation | <input type="checkbox"/> | d) Benzene diazonium ion | <input type="checkbox"/> |

25) In the Kolbe-Schmitt reaction, which product is formed?

- | | | | |
|-------------------|--------------------------|-------------------------|--------------------------|
| a) Salicylic acid | <input type="checkbox"/> | b) Benzoic acid | <input type="checkbox"/> |
| c) Phenol | <input type="checkbox"/> | d) Acetylsalicylic acid | <input type="checkbox"/> |

26) In Atomic Absorption Spectroscopy (AAS), which component generates the characteristic wavelength for element-specific detection?

- | | | | |
|------------------------|--------------------------|------------------|--------------------------|
| a) Hollow cathode lamp | <input type="checkbox"/> | b) Monochromator | <input type="checkbox"/> |
| c) Flame | <input type="checkbox"/> | d) Detector | <input type="checkbox"/> |

- 27) In cyclic voltammetry, what does the peak current depend on?
- | | | | |
|------------------------------|--------------------------|----------------------|--------------------------|
| a) Scan rate | <input type="checkbox"/> | b) Solvent viscosity | <input type="checkbox"/> |
| c) Electrolyte concentration | <input type="checkbox"/> | d) All of the above | <input type="checkbox"/> |
- 28) What is the English meaning of term 'Ante cibos' used in prescription writing?
- | | | | |
|-----------------|--------------------------|------------------|--------------------------|
| a) Before meals | <input type="checkbox"/> | b) Boiling water | <input type="checkbox"/> |
| c) Left ear | <input type="checkbox"/> | d) Twice a day | <input type="checkbox"/> |
- 29) The antiarrhythmic drug Quinidine is:
- | | |
|-----------------------------------|--------------------------|
| a) (+) Stereoisomer of Quinine | <input type="checkbox"/> |
| b) (-) Stereoisomer of Quinine | <input type="checkbox"/> |
| c) (+) Racemic mixture of Quinine | <input type="checkbox"/> |
| d) None of these | <input type="checkbox"/> |
- 30) In capsules, Rotofil is used for filling
- | | | | |
|------------|--------------------------|----------------------|--------------------------|
| a) Powders | <input type="checkbox"/> | b) Pellets | <input type="checkbox"/> |
| c) Liquids | <input type="checkbox"/> | d) Corrosive liquids | <input type="checkbox"/> |
- 31) Which of the following is not obtained from *Papaver somniferum*
- | | | | |
|-------------|--------------------------|--------------|--------------------------|
| a) Morphine | <input type="checkbox"/> | b) Codeine | <input type="checkbox"/> |
| c) Thebaine | <input type="checkbox"/> | d) Reserpine | <input type="checkbox"/> |
- 32) According to Pauli exclusion principle, spins of two electrons in the same orbital are
- | | |
|---------------------------------|--------------------------|
| a) Parallel to one another | <input type="checkbox"/> |
| b) perpendicular to one another | <input type="checkbox"/> |
| c) Opposite to one another | <input type="checkbox"/> |
| d) Supporting one another | <input type="checkbox"/> |

- 33) Smallpox vaccine contains
- | | | | |
|------------------------------|--------------------------|-------------------------------|--------------------------|
| a) Living virus vaccinia | <input type="checkbox"/> | b) Living culture of B. C. G. | <input type="checkbox"/> |
| c) Attenuated staphylococcus | <input type="checkbox"/> | d) Living virus hepatitis | <input type="checkbox"/> |
- 34) Caffeine on oxidation with KClO_3/HCl gives
- | | |
|-------------------------------------|--------------------------|
| a) Trimethyl alloxan and urea | <input type="checkbox"/> |
| b) Methyl alloxan and dimethyl urea | <input type="checkbox"/> |
| c) Dimethyl alloxan and methyl urea | <input type="checkbox"/> |
| e) None of these | <input type="checkbox"/> |
- 35) Identify the correct molecule which controls the biosynthesis of proteins in living organisms
- | | | | |
|------------|--------------------------|----------------|--------------------------|
| a) DNA | <input type="checkbox"/> | b) RNA | <input type="checkbox"/> |
| c) Purines | <input type="checkbox"/> | d) Pyrimidines | <input type="checkbox"/> |
- 36) In the context of deficiency of proteins in humans, what is the full form of PCM?
- | | |
|---------------------------------|--------------------------|
| a) Protein-Calorie Malnutrition | <input type="checkbox"/> |
| b) Protein-Calcium Malnutrition | <input type="checkbox"/> |
| c) Protein-Calorie Marasmus | <input type="checkbox"/> |
| d) Protein-Calcium Marasmus | <input type="checkbox"/> |
- 37) One of the materials listed below is most commonly used in film coating of tablets. Identify.
- | | | | |
|-----------------------------|--------------------------|------------|--------------------------|
| a) Hydroxy methyl cellulose | <input type="checkbox"/> | b) Acacia | <input type="checkbox"/> |
| c) Simple syrup | <input type="checkbox"/> | d) Beeswax | <input type="checkbox"/> |
- 38) Which of the following is a polar protic solvent?
- | | | | |
|----------------|--------------------------|------------|--------------------------|
| a) Acetic acid | <input type="checkbox"/> | b) Ethanol | <input type="checkbox"/> |
| c) Water | <input type="checkbox"/> | d) All | <input type="checkbox"/> |

39) The schedule in Drugs and Cosmetic act that deals with the requirements and guidelines for clinical trials, import and manufacture of new drug is

- a) Schedule O b) Schedule M
c) Schedule F d) Schedule Y

40) Which one is an acid-resistant penicillinase-resistant penicillin?

- a) Flucloxacillin b) Cloxacillin
c) Nafcillin d) Methicillin

41) Which of the following elements is most abundant in Earth's crust?

- a) Iron b) Oxygen
c) Silicon d) Aluminum

42) Which test is used to distinguish between *Staphylococcus aureus* and *Staphylococcus epidermidis*?

- a) Coagulase test b) Catalase test
c) Oxidase test d) Voges-Proskauer test

43) What is the role of quorum sensing in bacteria?

- a) Enable motility
b) Regulate gene expression in response to population density
c) Induce sporulation
d) Enhance resistance to antibiotics

44) Which phase of bacterial growth is characterized by the most rapid cell division?

- a) Lag phase b) Log phase
c) Stationary phase d) Death phase

- 45) Which of the following is the correct sequence of the Gram staining procedure?
- a) Crystal violet → Iodine → Decolorizer → Safranin
- b) Crystal violet → Safranin → Iodine → Decolorizer
- c) Iodine → Crystal violet → Safranin → Decolorizer
- d) Decolorizer → Safranin → Iodine → Crystal violet
- 46) Which reaction involves migration of group from carbon to nitrogen?
- a) Baeyer – Villiger rearrangements
- b) Pinacole-Pinacolone rearrangements
- c) Beckmann rearrangements
- d) Benzilic acid rearrangements
- 47) Dose dumping is a problem in the formation of
- a) Compressed tablets b) Suppositories
- c) Soft gelatin capsules d) Controlled release drug products
- 48) Phloroglucinol and Hydrochloric acid produces pink or red color with
- a) Cellulose cell walls b) Lignifies cell walls
- c) Cutinized cell walls d) mucilaginous cell walls
- 49) Which of the following is an obligate intracellular parasite?
- a) Rickettsia b) Streptococcus
- c) Lactobacillus d) Bacillus
- 50) Which of the following is a spore-forming bacterium?
- a) Bacillus subtilis b) Escherichia coli
- c) Salmonella typhi d) Vibrio cholerae

For the post of Pharmacist
Answers of MCQ Questions

- (1) Ans: a)
- (2) Ans: b)
- (3) Ans: d)
- (4) Ans: b)
- (5) Ans: a)
- (6) Ans: a)
- (7) Ans: b)
- (8) Ans: a)
- (9) Ans: C)
- (10) Ans: a)
- (11) Ans: b)
- (12) Ans: d)
- (13) Ans: d)
- (14) Ans: A)
- (15) Ans: a)
- (16) Ans: b)
- (17) Ans: a)
- (18) Ans: c)
- (19) Ans: b)
- (20) Ans: a)
- (21) Ans: b)
- (22) Ans: a)
- (23) Ans: c)
- (24) Ans: a)
- (25) Ans: a)
- (26) Ans: a)
- (27) Ans: d)
- (28) Ans: a)
- (29) Ans: a)
- (30) Ans: b)
- (31) Ans: d)
- (32) Ans: c)

- (33) Ans: a)
- (34) Ans: c)
- (35) Ans: a)
- (36) Ans: a)
- (37) Ans: a)
- (38) Ans: d)
- (39) Ans: d)
- (40) Ans: d)
- (41) Ans: b)
- (42) Ans: a)
- (43) Ans: b)
- (44) Ans: b)
- (45) Ans: a)
- (46) Ans: c)
- (47) Ans: d)
- (48) Ans: b)
- (49) Ans: a)
- (50) Ans: a)