



रेलवे भर्ती बोर्ड / RAILWAY RECRUITMENT BOARD
सी ई एन - ०३/२०२५ - CEN - 03/2025
Recruitment for Paramedical Categories



RRB PARAMEDICAL 2025

Pharmacist (Entry Grade)

Paramedical Categories | CEN 03/2025

ENGLISH ANSWER KEY

Official Answer Key

All 2 Shifts · 13 Mar 2026

Post	Pharmacist (Entry Grade)
Questions	100 per paper
Marking	+1 correct / -1/3 wrong
Duration	90 minutes
Sections	General Ability 30 · Professional Ability 70

Every paper is printed from the official question text with the correct answer marked.

HOW TO USE THIS BOOK

- 1 Open the INDEX on the next page.
- 2 Click any row to jump straight to that date and shift.
- 3 The correct option of every question is ticked in green.
- 4 Use the bookmarks panel of your PDF reader to move between shifts.

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Compiled 27 October 2026

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RRB Paramedical 2025 - Pharmacist (Entry Grade) (English) - 2 papers

PAPER	DATE	TIME	QUESTIONS	PAGE
Paper 1	13 Mar 2026	12:45 PM - 2:15 PM	100	3
Paper 2	13 Mar 2026	4:30 PM - 6:00 PM	100	21



रेलवे भर्ती बोर्ड / RAILWAY RECRUITMENT BOARD
सी ई एन - ०३/२०२५ - CEN - 03/2025
Recruitment for Paramedical Categories



PAPER 1 of 2 · Pharmacist (Entry Grade) · English

Exam	RRB Paramedical 2025 (CEN 03/2025)
Post	Pharmacist (Entry Grade)
Test Date	13 Mar 2026
Test Time	12:45 PM - 2:15 PM
Language	English
Questions	100
Marking	+1 correct / -1/3 wrong

Correct option of the official answer key: **green with ✓**. Question IDs are RRB's own.

Section : General Ability

Q.1 Which Amendment Act made elementary education a fundamental right under Article 21A, mandating free and compulsory education for all children aged 6 to 14 years? Ans 104th Amendment 86th Amendment ✓ 73rd Amendment 101st Amendment	Question ID : 4410091576161 Correct Option : 2
Q.2 Which constitutional amendment established an urban local government system in India in 1992? Ans 74th Constitutional Amendment Act ✓ 65th Constitutional Amendment Bill 73rd Constitutional Amendment Act 68th Constitutional Amendment Act	Question ID : 4410091579250 Correct Option : 1
Q.3 All 69 people are standing in a row facing north. Tanay is 31st from the right end, while Lomasi is 28th from the left end. How many people are there between Tanay and Lomasi? Ans 24 10 ✓ 25 12	Question ID : 4410091608427 Correct Option : 2
Q.4 Each vowel in the word CURTAIL is changed to the letter immediately following it in the English alphabetical order and each consonant is changed to the letter immediately preceding it in the English alphabetical order. Which of the following letters will be third from the right in the new group of letters thus formed? Ans - C - D - A B ✓	Question ID : 441009778829 Correct Option : 4

Q.5 By applying Newton's law of gravitation to a falling object at the surface of the Earth, the acceleration due to gravity is given by $g = GM / R^2$. The symbol M represents the mass of the: Ans 1. Moon 2. Falling object 3. Sun 4. Earth ✓	Question ID : 4410091646521 Correct Option : 4
Q.6 What is the maximum number of electrons that can be present in the third shell (n=3) of an atom? Ans 1. 2 2. 32 3. 18 ✓ 4. 8	Question ID : 4410091569788 Correct Option : 3
Q.7 Both skeletal and cardiac muscles have striations. Which feature distinguishes cardiac muscle from skeletal muscle? Ans 1. Absence of nucleus 2. Multiple nuclei per cell 3. Voluntary control 4. Uninucleate ✓	Question ID : 4410091559693 Correct Option : 4
Q.8 The largest four-digit number which when divided by 14, 9 and 8 leaves remainder 2 in each case is: Ans 1. 9234 2. 9578 ✓ 3. 9584 4. 9964	Question ID : 441009525163 Correct Option : 2
Q.9 Which Indian film actress won the 70th Filmfare Best Actor in a Leading Role (Female) award in 2025? Ans 1. Yami Gautam 2. Radhika Apte 3. Kangana Ranaut 4. Alia Bhatt ✓	Question ID : 4410091583532 Correct Option : 4
Q.10 Which of the following is the primary international body that promotes global trade liberalization and economic globalization? Ans 1. European Free Trade Association (EFTA) 2. Shanghai Cooperation Organization (SCO) 3. African Continental Free Trade Area (AfCFTA) 4. World Trade Organization (WTO) ✓	Question ID : 4410091448961 Correct Option : 4

Q.11 If fertilisation does not occur, what happens to the thickened uterine lining in females? Ans 1. It sheds as blood and mucous in menstruation ✓ 2. It remains in the uterus permanently 3. It is absorbed back into the body slowly 4. It hardens and forms scar tissue	Question ID : 4410091562246 Correct Option : 1
Q.12 Where did India begin Exercise MAITREE-XIV with Thailand in 2025? Ans 1. Meghalaya ✓ 2. Arunachal Pradesh 3. Sikkim 4. Assam	Question ID : 4410091583113 Correct Option : 1
Q.13 In 2025, India launched a homegrown microprocessor called DHRUV64. What is its key feature? Ans 1. 64-bit blockchain microprocessor 2. 64-bit dual-core microprocessor ✓ 3. 64-bit solar-powered chip 4. 64-bit wireless data chip	Question ID : 4410091583017 Correct Option : 2
Q.14 A neuron consists of a cell body, a nucleus, and many short, branched parts called _____. Ans 1. flagella 2. villi 3. dendrites ✓ 4. cilia	Question ID : 4410091695124 Correct Option : 3
Q.15 In a certain code language, A + B means 'A is the son of B' A – B means 'A is the wife of B' A @ B means 'A is the daughter of B' A # B means 'A is the mother of B' Based on the above, how is S related to K if 'S + W # Y @ K'? Ans 1. Husband 2. Father 3. Son ✓ 4. Brother	Question ID : 4410091230861 Correct Option : 3
Q.16 Amit invested equal amounts at simple interest and compound interest, compounded annually, for 2 years at the same rate of 8% per annum. In the end, he found a difference of ₹52 between the two interests earned. What was the amount (in ₹) invested in each case? Ans 1. 7225 2. 8125 ✓ 3. 7375 4. 8475	Question ID : 441009572282 Correct Option : 2

Q.17 The gravitational force (F) between two objects with mass m_1 and m_2 ; is always _____ . Ans 1. Zero 2. Repulsive 3. Attractive ✓ 4. Sometimes attractive, sometimes repulsive	Question ID : 4410091254685 Correct Option : 3
Q.18 Which among the following is NOT a land resource? Ans 1. Soil 2. Water 3. Minerals 4. Sunlight ✓	Question ID : 44100924798 Correct Option : 4
Q.19 What should come in place of '?' in the given series based on the English alphabetical order? JHK PNQ VTW BZC ? Ans 1. HFI ✓ 2. HGK 3. GEQ 4. GFN	Question ID : 4410091475430 Correct Option : 1
Q.20 Which of the following groups represents Indo-Aryan languages primarily spoken in the eastern region of India? Ans 1. Assamese, Bengali, Odia ✓ 2. Bengali, Maithali, Konkani 3. Konkani, Marathi, Gujarati 4. Assamese, Konkani, Odia	Question ID : 4410091572976 Correct Option : 1
Q.21 In a circuit, if the resistance is halved and the voltage remains the same, how does the power change? Ans 1. Power doubles ✓ 2. Power quadruples 3. Power remains the same 4. Power halves	Question ID : 4410091560164 Correct Option : 1

Q.22 Below are given two sets of numbers. In each set of numbers, a certain mathematical operation on the first number results in the second number. Similarly, certain mathematical operation on the second number results in the third number and so on. Which of the given options follows the same set of operations as in question? (NOTE – A two/three digit number cannot be broken into individual digits for operations, e.g. if 37 is followed by 10, the operation cannot be 3+7 as a two digit number cannot be broken into individual digits.) 5 - 10 - 20 - 40 ; 3 - 6 - 12 - 24 Ans 1. 6 - 12 - 24 - 48 ✓ 2. 6 - 10 - 12 - 14 3. 11 - 22 - 24 - 28 4. 3 - 6 - 12 - 23	Question ID : 4410091337598 Correct Option : 1
Q.23 In which year was the East India Company founded to engage in trade with India and East and Southeast Asia? Ans 1. 1615 2. 1600 ✓ 3. 1605 4. 1610	Question ID : 4410091571790 Correct Option : 2
Q.24 Which of the following physiographic divisions is a part of the Peninsular Plateau? Ans 1. The Islands 2. The Himalayan Mountains 3. The Northern Plains 4. The Central Highlands ✓	Question ID : 44100914715 Correct Option : 4
Q.25 A pipe can fill a tank in 6 hours. Another pipe can empty the filled tank in 42 hours. If both the pipes are opened simultaneously, then the time (in hours) in which the tank will be filled is: Ans 1. 9 2. 8 3. 10 4. 7 ✓	Question ID : 441009897281 Correct Option : 4
Q.26 Which branch of chemistry deals with the study of elements and compounds that do not contain carbon-hydrogen bonds? Ans 1. Physical chemistry 2. Inorganic chemistry ✓ 3. Biochemistry 4. Organic chemistry	Question ID : 4410091566036 Correct Option : 2

Q.27 A wave has a wavelength of 0.5 m and a frequency of 200 Hz. Its speed is _____ . Ans 400 m/s 200 m/s 50 m/s 100 m/s ✓	Question ID : 4410091256279 Correct Option : 4
Q.28 The average of five numbers is 30. If one of the numbers is 34, what is the average of the remaining four numbers? Ans 27 31 29 ✓ 28	Question ID : 4410091575782 Correct Option : 3
Q.29 Which statement best explains why non-metallic oxides generally react with bases? Ans - Non-metallic oxides do not react with bases - Non-metallic oxides are basic in nature - Non-metallic oxides are neutral in nature Non-metallic oxides are acidic in nature ✓	Question ID : 4410091565686 Correct Option : 4
Q.30 The total surface area of 12 cubes and 17 cuboids is 968 sq. cm. Each cuboid is formed by joining two cubes face to face. If the length of each side of a cube is 'a' cm, then find the value of $\frac{a^3}{4} \times \frac{8-a}{4-a}$. Ans 8 4 6 ✓ 2	Question ID : 4410091562388 Correct Option : 3

Section : Professional Ability

Q.31 What is the influence of food in stomach on drug delivery system? Ans - Change the intrinsic permeability of intestinal membrane - Change the enteric coating of drug May alter the rate and extent of drug bioavailability ✓ - Alter the color of drug	Question ID : 4410091598522 Correct Option : 3
Q.32 What is the effect of adding a small amount of strong acid to a buffer solution of acetic acid and sodium acetate? Ans - The pH increases significantly - The pH remains exactly the same The pH settles near its original value ✓ - The pH drops sharply to acidic value	Question ID : 4410091689327 Correct Option : 3

Q.33 Which of the following routes is considered a non per oral extravascular route for drug absorption? Ans 1. Oral 2. Buccal ✓ 3. Gastric 4. Intravenous	Question ID : 4410091713671 Correct Option : 2
Q.34 Methotrexate and Riboflavin are unsuitable for sustained release because they are absorbed through: Ans 1. Pinocytosis 2. Passive diffusion 3. Active transport ✓ 4. Paracellular diffusion	Question ID : 4410091560078 Correct Option : 3
Q.35 A pharmacist needs to distinguish between an unknown sample of aldehyde and ketone. Which chemical test would provide a positive result only for aldehydes and not for ketones? Ans 1. Schiff's test 2. Iodoform test 3. Tollen's reagent test ✓ 4. Sodium nitroprusside test	Question ID : 4410091599158 Correct Option : 3
Q.36 Which organization establishes the Code of Pharmaceutical Ethics regarding advertising and displays in India? Ans 1. Medical Council of India 2. Indian Pharmacopoeia Commission 3. Central Drugs Standard Control Organisation 4. Pharmacy Council of India ✓	Question ID : 4410091591688 Correct Option : 4
Q.37 According to the code of pharmaceutical ethics, which of these statements is NOT allowed in advertising for medicines? Ans 1. Storage instructions 2. Shelf-life information 3. Product origin 4. Misleading claim ✓	Question ID : 4410091559382 Correct Option : 4
Q.38 What is a key advantage of rectal drug administration compared to oral? Ans 1. It eliminates all first-pass metabolism 2. It can be used when a patient is vomiting ✓ 3. It is suitable for all drugs 4. It always has faster onset than intravenous	Question ID : 4410091591810 Correct Option : 2

Q.39 According to the Lewis acid-base concept, a Lewis acid is defined as a/an: Ans 1. Proton acceptor 2. Electron acceptor ✓ 3. Electron donor 4. Proton donor	Question ID : 4410091695163 Correct Option : 2
Q.40 Which of the following concentration range of sucrose acts as a self preservative in monophasic liquid dosage forms? Ans 1. 20-30% 2. 60-85% ✓ 3. 50-55% 4. 40-45%	Question ID : 4410091589283 Correct Option : 2
Q.41 Which of the following is considered ethical in pharmaceutical advertising according to the Code? Ans 1. Promoting off-label uses 2. Concealing side effects 3. Comparing with non-pharmaceutical products 4. Providing balanced information about drug use ✓	Question ID : 4410091559591 Correct Option : 4
Q.42 Why is the mouth of the fermentation vessel covered with muslin cloth during preparation of Arista and Asava? Ans 1. To enhance sweetness 2. To maintain temperature 3. To prevent evaporation 4. To allow air exchange and prevent contamination ✓	Question ID : 4410091561923 Correct Option : 4
Q.43 A pharmacy student is given a list of medicinal plants and asked to organize them for quick reference in a drug store. Which classification system should he use to ensure drugs are easy to locate ? Ans 1. Taxonomical classification 2. Alphabetical classification ✓ 3. Morphological classification 4. Chemical classification	Question ID : 4410091599488 Correct Option : 2
Q.44 Which combination of biological factors must be considered together when designing a controlled drug delivery system for oral use? Ans 1. Storage temperature and humidity 2. Gastrointestinal motility and enzyme activity ✓ 3. Capsule size and taste 4. Tablet weight and shape	Question ID : 4410091598493 Correct Option : 2

Q.45 When submitting a herbal medicinal product for marketing authorization in Europe requiring efficacy comparable to conventional medicines, which guideline applies? Ans 1. EU Regulation 536/2014 on clinical trials 2. EU Directive 2001/83/EC as amended by Directive 2004/24/EC ✓ 3. ICH S7A Safety Pharmacology Studies 4. ICH Q10 Pharmaceutical Quality System	Question ID : 4410091696235 Correct Option : 2
Q.46 Aldehydes and ketones both undergo nucleophilic addition reactions. Which property do they both share that enables this reaction? Ans 1. Presence of an alkene group 2. Presence of a carbonyl group ✓ 3. Presence of an ether group 4. Presence of a carboxyl group	Question ID : 4410091599156 Correct Option : 2
Q.47 Which of the following ICH guidelines covers the design and conduct of clinical trials for herbal drugs? Ans 1. Quality (Q) Guidelines 2. Multidisciplinary (M) Guidelines 3. Safety (S) Guidelines 4. Efficacy (E) Guidelines ✓	Question ID : 4410091702901 Correct Option : 4
Q.48 Which of the following acids has the lowest pKa value, indicating the highest acid strength? Ans 1. Acetic acid 2. Sulphuric acid ✓ 3. Formic acid 4. Citric acid	Question ID : 4410091557606 Correct Option : 2
Q.49 If a chemist identifies a molecule as both a proton donor and an electron-pair acceptor, which two acid-base concepts does this relate to? Ans 1. Bronsted-Lowry and Lewis ✓ 2. Arrhenius and Bronsted-Lowry 3. Arrhenius and Lewis 4. Earlier and Arrhenius	Question ID : 4410091560176 Correct Option : 1
Q.50 Which of the following is an irreversible instability in emulsions? Ans 1. Flocculation 2. Creaming 3. Phase inversion 4. Cracking ✓	Question ID : 4410091702406 Correct Option : 4

Q.51 Which of the following is a typical symptom of acute myocardial infarction that helps distinguish it from angina pectoris? Ans Sudden severe chest pain lasting more than 20 minutes ✓ - Mild chest discomfort after exercise - Pain only during deep breathing - Chest pain relieved by rest	Question ID : 4410091559791 Correct Option : 1
Q.52 In the context of dietary fibres and complex carbohydrates, which health claim is most strongly supported by scientific evidence? Ans - All dietary fibres are completely digested in the small intestine. - Complex carbohydrates lead to insulin resistance when consumed in high amounts. Dietary fibre intake reduces the risk of coronary heart disease. ✓ - Dietary fibre causes permanent weight loss without diet modification.	Question ID : 4410091696112 Correct Option : 3
Q.53 Which of the following is commonly used as a neutral preservative in monophasic liquid dosage forms? Ans - Methyl paraben - Phenol - Benzoic acid Benzyl alcohol ✓	Question ID : 4410091589257 Correct Option : 4
Q.54 Which mechanism is suggested as one way fiber can lower plasma cholesterol? Ans - Increasing blood glucose - Reducing water intake - Increasing protein synthesis Binding bile acids ✓	Question ID : 4410091561695 Correct Option : 4
Q.55 During an acid-base titration, a student uses a weak acid and a strong base. What will be the pH at the equivalence point? Ans Greater than 7 ✓ - Depends on initial concentration of acid - Exactly 7 - Less than 7	Question ID : 4410091569381 Correct Option : 1
Q.56 Which of following is commonly used as an antiseptic in surgical scrubs? Ans - Phenol Chlorhexidine ✓ - Ethylene oxide - Sodium hypochlorite	Question ID : 4410091589455 Correct Option : 2

Q.57 How does the addition of a co-emulsifier like cetyl alcohol affect an emulsion? Ans 1. It improves the stability of the emulsion ✓ 2. It turns oil-in-water to water-in-oil type 3. It decreases the viscosity significantly 4. It increases the solubility of oil phase	Question ID : 4410091691903 Correct Option : 1
Q.58 Evaluate the following scenario: An elderly patient is prescribed a high-fibre diet for chronic constipation. Which precaution should be emphasized to avoid adverse effects? Ans 1. Take fibre supplements immediately before bedtime to enhance overnight bowel movement. 2. Ensure adequate fluid intake to prevent gastrointestinal obstruction. ✓ 3. Restrict fibre intake if taking calcium supplements to prevent mineral binding interactions. 4. Increase fibre intake rapidly to maximize benefits.	Question ID : 4410091696113 Correct Option : 2
Q.59 Which of the following is a commonly used antiplatelet drug? Ans 1. Furosemide 2. Paracetamol 3. Metformin 4. Aspirin ✓	Question ID : 4410091557325 Correct Option : 4
Q.60 Which of following processes is required for clarifying injectable solutions by removing submicron contaminants? Ans 1. Slow-speed mixer with filter paper 2. Gravity sedimentation tank 3. Super centrifuge operating at maximum safe rotational speed ✓ 4. Drying oven at high temperature	Question ID : 4410091591342 Correct Option : 3
Q.61 Which property makes glutaraldehyde suitable for sterilizing medical equipment? Ans 1. Narrow-spectrum antimicrobial action 2. Low boiling point for easy evaporation 3. Broad-spectrum antimicrobial action including spores ✓ 4. Selective activity against spores only	Question ID : 4410091589457 Correct Option : 3
Q.62 Which activity is specifically included under the Quality Guidelines for herbal drug assessment? Ans 1. Clinical trial conduct 2. Botanical identification ✓ 3. Preparation of Common Technical Document 4. Genotoxicity studies	Question ID : 4410091702902 Correct Option : 2

Q.63 Which of the following statements best describes the mechanism of acid-base catalysis in the hydrolysis of esters? Ans 1. The base catalyst removes a proton from the alcohol group, reducing nucleophilicity and inhibiting the reaction. 2. The base catalyst adds a hydroxide ion to the ester, forming a stable intermediate that halts the reaction. 3. The acid catalyst donates an electron pair to the carbonyl group, decreasing its reactivity. 4. A proton is transferred from the acid catalyst to the carbonyl oxygen, increasing electrophilicity and facilitating nucleophilic attack. ✓	Question ID : 4410091694879 Correct Option : 4
Q.64 In a clinical scenario where bacteria produce aminoglycoside acetyltransferase, which aminoglycoside would likely retain efficacy and why? Ans 1. Gentamicin, because it has no amino groups 2. Amikacin, due to its L-hydroxyaminobutyryl group at N-1 ✓ 3. Neomycin, due to its high polarity 4. Streptomycin, due to absence of 2-deoxystreptamine nucleus	Question ID : 4410091695975 Correct Option : 2
Q.65 If a compound inhibits the site between cytochrome b and c1, which of the following is most likely that compound? Ans 1. Antimycin A ✓ 2. Rotenone 3. Cyanide 4. Malonate	Question ID : 4410091695080 Correct Option : 1
Q.66 Which of the following is an external factor influencing consumer buying behaviour? Ans 1. Perception 2. Economic changes ✓ 3. Personal motivation 4. Attitude	Question ID : 4410091561906 Correct Option : 2
Q.67 Which of the following best defines a drug? Ans 1. A substance that causes addiction 2. A nutrient essential for growth 3. A chemical used in laboratory experiments 4. A substance used to diagnose, prevent, or treat diseases ✓	Question ID : 4410091689119 Correct Option : 4
Q.68 A patient with significant weight loss due to cancer is started on an appetite stimulant. Which of the following drugs, a progestational agent, is most appropriate for this indication? Ans 1. Lorcaserin 2. Orlistat 3. Naltrexone 4. Megestrol acetate ✓	Question ID : 4410091689288 Correct Option : 4

Q.69 What is the primary purpose of using chemical methods in sterilization? Ans 1. To remove visible dirt 2. To remove toxic residues 3. To improve nutrient content of media 4. To eliminate microorganisms ✓	Question ID : 4410091589456 Correct Option : 4
Q.70 Which of the following are used as in-vitro anticoagulants? Ans 1. Calcium complexing agents ✓ 2. Phenindione 3. Coumarin derivatives 4. Indandione derivatives	Question ID : 4410091563630 Correct Option : 1
Q.71 How can temperature fluctuations during storage destabilize a suspension? Ans 1. They permanently eliminate all risks of particle caking. 2. They make all particles dissolve completely. 3. They can cause particle growth or Ostwald ripening, affecting particle size distribution and polymorphic form. ✓ 4. They increase the viscosity of the suspension, making it more stable.	Question ID : 4410091701354 Correct Option : 3
Q.72 In the context of alphabetical classification, what is the primary advantage? Ans 1. Previous and successive drug entries are related 2. Biological source can be traced 3. Pharmacological action of drugs can be identified 4. Easy retrieval of drug information ✓	Question ID : 4410091561851 Correct Option : 4
Q.73 A consumer's negative experience with side effects from a drug leads to avoidance of all similar products. Which characteristic explains this behavior? Ans 1. Preference for attractive packaging 2. Influence of past experience on future choices ✓ 3. Increased price sensitivity toward medicines 4. Influence of celebrity endorsement	Question ID : 4410091692581 Correct Option : 2
Q.74 Which statement best describes an advantage of biphasic systems over monophasic systems? Ans 1. Are always clear solutions 2. Can deliver insoluble drugs ✓ 3. Have no risk of microbial growth 4. Do not need flavoring agents	Question ID : 4410091588775 Correct Option : 2

Q.75 According to Stokes' law, which change will most effectively reduce the rate of creaming in an emulsion? Ans 1. Increasing the density difference between phases 2. Decreasing the size of the droplets ✓ 3. Increasing the droplet size 4. Decreasing the viscosity of the external phase	Question ID : 4410091702430 Correct Option : 2
Q.76 What best describes a proprietary (brand) name in pharmacology? Ans 1. It is the universally accepted scientific name. 2. It is the name given by the manufacturer and is their trademark. ✓ 3. It is the chemical structure name of the drug. 4. It is the name given by the government agency.	Question ID : 4410091701227 Correct Option : 2
Q.77 What is the sequence of the four stages of equipment qualification as per ICH and US FDA guidelines, which ensures reliability during manufacturing? Ans 1. Design, installation, operational & performance ✓ 2. Installation, operational, performance & design 3. Installation, performance, operational & design 4. Design, installation, performance & operational	Question ID : 4410091570870 Correct Option : 1
Q.78 Which of the following is NOT typically considered an Operational Qualification test for an HPLC unit? Ans 1. Pump flow rate 2. Detector wavelength accuracy 3. Gradient linearity 4. Routine analytical tests ✓	Question ID : 4410091558147 Correct Option : 4
Q.79 If poorly water soluble drugs are formulated as emulsions then which of the following is a major advantage of using emulsions as a biphasic liquid dosage form? Ans 1. They are less expensive to manufacture than all other dosage forms 2. They always mask the taste of all drugs completely 3. They require no special storage conditions 4. They enhance dissolution rates and bioavailability of the drug ✓	Question ID : 4410091701340 Correct Option : 4
Q.80 What is the role of plasmids in the application of rDNA technology in pharmaceutical biotechnology? Ans 1. Enzymes for digestion 2. Nutrients for cell growth 3. Markers for identification 4. Vectors for gene transfer ✓	Question ID : 4410091559677 Correct Option : 4

Q.81 Which symptom is commonly associated with acute myocardial infarction? Ans 1. Frequent urination 2. Intermittent cough 3. Severe chest pain ✓ 4. Fever	Question ID : 4410091559832 Correct Option : 3
Q.82 Which compounds react with the oxidized form of cytochrome oxidase? Ans 1. Cyanide and azide ✓ 2. Rotenone and amytal 3. Antimycin A and BAL 4. Carbon monoxide and piercidin A	Question ID : 4410091561063 Correct Option : 1
Q.83 Which of the following is NOT typically used as a flavor in oral monophasic liquids? Ans 1. Strawberry 2. Orange 3. Vanilla 4. Copper sulfate ✓	Question ID : 4410091589260 Correct Option : 4
Q.84 Why are aminoglycosides generally not effective against anaerobic bacteria? Ans 1. Anaerobic bacteria lack a cell wall 2. Aminoglycosides are inactivated by anaerobes 3. Aminoglycosides require oxygen-dependent transport to enter cells ✓ 4. Anaerobes produce more protein than aerobes	Question ID : 4410091599410 Correct Option : 3
Q.85 If a patient indicates myocardial infarction due to cocaine use, which etiological category does this fall under? Ans 1. Coronary artery anomaly 2. Drug-induced ischemia ✓ 3. Peripheral vascular disease 4. Nonmodifiable risk factor	Question ID : 4410091582497 Correct Option : 2
Q.86 Which adverse effect is most commonly associated with the long-term use of antiplatelet drugs? Ans 1. Hyperglycemia 2. Hypertension 3. Constipation 4. Bleeding ✓	Question ID : 4410091557329 Correct Option : 4
Q.87 Which statement best describes Bronsted acids in the context of acid catalysis? Ans 1. Bronsted acids are proton donors that can cause acid catalysis ✓ 2. Bronsted acids are proton acceptors 3. Bronsted acids are always undissociated 4. Bronsted acids are only H⁺ ions	Question ID : 4410091714246 Correct Option : 1

Q.88 What is the recognition sequence for the restriction endonuclease EcoRI? Ans 1. GAATTC ✓ 2. ATCGAT 3. GCGCGC 4. CCTAGG	Question ID : 4410091560030 Correct Option : 1
Q.89 A dietitian is tasked with planning meals for a client who needs increased stool bulk and also wants to help manage blood cholesterol. Which of the following combination of foods best meets both requirements? Ans 1. Eggs and grilled chicken 2. Whole grain cereals and oats ✓ 3. White bread and butter 4. Refined pasta and cheese	Question ID : 4410091703161 Correct Option : 2
Q.90 A pharmacist is tasked with choosing an appropriate indicator for titrating a weak acid with a strong base. Which factor should most influence their choice? Ans 1. The container material used 2. The pH range at the equivalence point ✓ 3. The cost of the indicator 4. The color of the indicator	Question ID : 4410091598874 Correct Option : 2
Q.91 Which class of appetite suppressants does fluoxetine belong to? Ans 1. Central catecholamine pathway drugs 2. Amphetamines 3. Central serotonin pathway drugs ✓ 4. Sympathomimetic drugs	Question ID : 4410091556152 Correct Option : 3
Q.92 When using a super centrifuge for separating oil and water emulsions, what operational parameter most significantly affects the sharpness of phase separation? Ans 1. Temperature of the feed mixture 2. Diameter of the feed tube 3. Viscosity of the lubricating oil 4. Rotational speed of the centrifuge bowl ✓	Question ID : 4410091691703 Correct Option : 4
Q.93 Which parameter is affected when an acid catalyst is added to a reaction? Ans 1. Temperature 2. Activation energy ✓ 3. Enthalpy change 4. Free energy	Question ID : 4410091561482 Correct Option : 2

Q.94 Why is the kasaya strained before being kept in the fermentation vessel during Arista preparation? Ans 1. To reduce sugar content 2. To increase temperature rapidly 3. To initiate fermentation early 4. To remove solid particles and obtain a clear liquid for fermentation ✓	Question ID : 4410091702763 Correct Option : 4
Q.95 A patient receives a subcutaneous drug injection. To enhance drug absorption, the nurse co-administers hyaluronidase. What is the primary effect of this enzyme? Ans 1. It decreases blood flow to the site 2. It induces local vasoconstriction 3. It increases drug-tissue contact area by breaking down connective tissue ✓ 4. It promotes drug precipitation at the site	Question ID : 4410091713687 Correct Option : 3
Q.96 Which of the following best describes the composition of Schiff's reagent used in detecting aldehydes? Ans 1. Alkaline solution of cupric ion complexed with sodium potassium tartrate ions 2. Rosalinine hydrochloride dissolved in water ✓ 3. Alkaline solution of cupric ion complexed with citrate ions 4. Ammoniacal solution of silver oxide	Question ID : 4410091695221 Correct Option : 2
Q.97 Which initial step is involved in the preparation of Arista according to Ayurvedic formulation? Ans 1. Adding honey at the beginning 2. Directly fermenting whole herbs 3. Coarsely powdering the drugs and preparing kasaya ✓ 4. Dissolving sugar in water	Question ID : 4410091702753 Correct Option : 3
Q.98 In the context of pharmaceutical marketing, how does a consumer's self-concept most likely influence their buying behaviour? Ans 1. It has no effect on product involvement. 2. It always leads to impulse purchases. 3. It shapes preferences for products that align with their self-image. ✓ 4. It prevents information processing about products.	Question ID : 4410091714851 Correct Option : 3
Q.99 Which of the following best describes the difference between the alphabetical classification of drugs in the European Pharmacopoeia and the United States Pharmacopoeia (U.S.P.)? Ans 1. European Pharmacopoeia uses Latin names, U.S.P. uses English names ✓ 2. Both use Latin names 3. U.S.P. uses scientific names, European Pharmacopoeia uses common names 4. Both use English names	Question ID : 4410091702669 Correct Option : 1

Q.100 What is the main goal of using rDNA technology in pharmaceuticals?

Ans

1. To change tablet color
2. To increase tablet size
3. To improve taste of medicines
4. To produce therapeutic proteins ✓

Question ID :
4410091591986
Correct Option : 4

Blackbook



रेलवे भर्ती बोर्ड / RAILWAY RECRUITMENT BOARD

सी ई एन - ०३/२०२५ - CEN - 03/2025

Recruitment for Paramedical Categories



PAPER 2 of 2 · Pharmacist (Entry Grade) · English

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Correct option of the official answer key: **green with ✓**. Question IDs are RRB's own.

Section : General Ability

Q.1	Which of the following is a key feature of the Right to Information Act? Ans 1. Only MPs can ask for information 2. Officials can hide any data 3. Citizens must get court approval to ask questions 4. Citizens can access government records and decisions ✓	Question ID : 441009293816 Correct Option : 4
Q.2	The ratio of the heights of a right circular cone and a right circular cylinder is 9 : 2 and the ratio of the radii of their bases is 3 : 2. If the volume of the cylinder is 448 cm ³ , then the volume (in cm ³) of the cone is: Ans 1. 1509 2. 1512 ✓ 3. 1521 4. 1519	Question ID : 441009272743 Correct Option : 2
Q.3	Sumit travels from A to B at a speed of 40 km/hr in 72 minutes and from B to C at a speed of 50 km/hr in 42 minutes. Find the average speed of Sumit from A to C. (Rounded off your answer to two decimal places) Ans 1. 45.60 km/h 2. 43.68 km/h ✓ 3. 42.50 km/h 4. 45.45 km/h	Question ID : 441009900472 Correct Option : 2
Q.4	The power of accommodation of the human eye refers to the ability of the eye to: Ans 1. Change the focal length of the eye lens ✓ 2. Change the distance between the retina and lens 3. Adjust the intensity of light entering the eye 4. Change the size of the pupil	Question ID : 4410091633403 Correct Option : 1

Q.5 Which of the following statements about soap and its cleaning action is INCORRECT? Ans 1. Soap molecules have both hydrophilic and hydrophobic ends, allowing them to interact with both water and oil. 2. Soap molecules form micelles that trap oil and grease, allowing them to be dispersed in water and washed away. 3. The hydrophilic part of a soap molecule interacts with hydrocarbons, while the hydrophobic part is attracted to water. ✓ 4. The hydrophobic part of a soap molecule repels water, aiding in the removal of oily substances.	Question ID : 441009647477 Correct Option : 3
Q.6 A science project requires a real, inverted image of the same size as the object using a concave mirror. Based on the mirror formula, where should the object be placed relative to the mirror? Ans 1. Beyond the center of curvature ($u < 2f$) 2. At the focal point ($u = f$) 3. At the center of curvature ($u = 2f$) ✓ 4. Between the pole and the focus ($u > f, u < 0$)	Question ID : 4410091611900 Correct Option : 3
Q.7 Which of the following describes the main difference between simple permanent tissue and complex permanent tissue? Ans 1. Simple permanent tissue is made of one type of cell, whereas complex permanent tissue is made of different types of cells. ✓ 2. Simple permanent tissue is present only in leaves, whereas complex permanent tissue is present only in roots. 3. Simple permanent tissue is always dead, whereas complex permanent tissue is always living. 4. Simple permanent tissue stores food only, whereas complex permanent tissue performs photosynthesis only.	Question ID : 4410091559558 Correct Option : 1
Q.8 Which of the following Indian states is famous for the traditional Warli painting style? Ans 1. Kerala 2. Maharashtra ✓ 3. Punjab 4. Rajasthan	Question ID : 4410091573539 Correct Option : 2
Q.9 In a certain code language, 'TOUR' is coded as '7542' and 'TURN' is coded as '7485'. What is the code for 'N' in the given code language? Ans 1. 8 ✓ 2. 7 3. 5 4. 4	Question ID : 441009784577 Correct Option : 1

Q.10 In the following number-pairs, the second number is obtained by applying certain mathematical operations to the first number. Select the set in which the numbers are related in the same way as are the numbers of the following sets. (NOTE : Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding / subtracting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed) 3 - 28 5 - 126 Ans 1. 6 - 36 2. 2 - 9 ✓ 3. 4 - 63 4. 10 - 100	Question ID : 441009591343 Correct Option : 2
Q.11 Based on the English alphabetical order, three of the following four letter cluster pairs are alike in a certain way and thus form a group. Which is the one that does not belong to that group? (Note: The odd one out is not based on the number of consonants/vowels or their position in the letter cluster) Ans 1. EN:HR 2. RM:UQ 3. OR:RY ✓ 4. CG:FK	Question ID : 441009782036 Correct Option : 3
Q.12 In a row of people all facing north, Nimat is 29th from the left end. Pemila is 44th from the left end. Pemila is exactly between Nimat and Kishan. If Kishan is 9th from the right end of the row, how many people are there in the row? Ans 1. 68 2. 64 3. 67 ✓ 4. 66	Question ID : 4410091608430 Correct Option : 3
Q.13 The Donkarayi Power House is located in which of the following states of India? Ans 1. Karnataka 2. Tamil Nadu 3. Andhra Pradesh ✓ 4. Kerala	Question ID : 4410091583819 Correct Option : 3
Q.14 The cleaning action of soap is due to the formation of: Ans 1. Precipitates 2. Micelles ✓ 3. Hydration shells 4. Glycerol	Question ID : 441009864055 Correct Option : 2

Q.15 Every child inherits an X chromosome from their mother. Which reasoning best explains this biological certainty? Ans 1. Mothers pass both X and Y chromosomes. 2. Mothers produce only X-bearing eggs. ✓ 3. Mothers selectively pass X or Y chromosomes. 4. X inheritance from mother depends on environment.	Question ID : 4410091697391 Correct Option : 2
Q.16 Which number must be added to 225 so that the square root of the result is exactly 16? Ans 1. 25 2. 31 ✓ 3. 19 4. 16	Question ID : 4410091655578 Correct Option : 2
Q.17 Refer to the following letter, symbol series and answer the question. Counting to be done from left to right only (Left) % E & € F * U \$ O & K \$ U B % M © & W * L % (Right) How many such symbols are there each of which is immediately preceded by a letter and also immediately followed by a symbol? Ans 1. 4 2. 1 3. 2 ✓ 4. 3	Question ID : 441009790932 Correct Option : 3
Q.18 Who was elected as the 15th Vice President of India in September 2025? Ans 1. CP Radhakrishnan ✓ 2. P Chidambaram 3. B Sudershan Reddy 4. Jagdeep Dhankhar	Question ID : 4410091583115 Correct Option : 1
Q.19 Kaveri Vaaman is a variety of which fruit developed by the Bhabha Atomic Research Centre (BARC) as the country's first mutant variety of that fruit, officially released by the Government of India in November 2025? Ans 1. Grapes 2. Guava 3. Banana ✓ 4. Apple	Question ID : 4410091571185 Correct Option : 3
Q.20 If you need to recover salt from a saltwater solution in a laboratory, which process should you use? Ans 1. Filtration 2. Distillation ✓ 3. Decantation 4. Chromatography	Question ID : 4410091569650 Correct Option : 2

Q.21 In which Indian region were 'guls' or 'kuls' traditionally constructed as diversion channels to carry water from mountain streams for agricultural irrigation? Ans 1. Eastern Coastal Plains 2. Deccan Plateau 3. Indo-Gangetic Plains 4. Western Himalayas ✓	Question ID : 4410091583818 Correct Option : 4
Q.22 Which process does NOT occur during aerobic respiration in animal cells? Ans 1. Fermentation ✓ 2. Glycolysis 3. Krebs cycle 4. Electron transport chain	Question ID : 4410091568620 Correct Option : 1
Q.23 What was the budget allocation for infrastructure spending in India for the financial year 2023-24? Ans 1. ₹12 lakh crore 2. ₹10 lakh crore ✓ 3. ₹5 lakh crore 4. ₹7.5 lakh crore	Question ID : 441009103199 Correct Option : 2
Q.24 If the physical conditions of the Earth's atmosphere suddenly became completely stationary, how would this affect the twinkling of stars? Ans 1. Stars would stop twinkling ✓ 2. Stars would change color 3. Stars would twinkle more rapidly 4. Stars would appear larger	Question ID : 4410091559369 Correct Option : 1
Q.25 A book is marked at ₹170 with a 20% discount. What additional percentage discount should be given to reduce the net selling price to ₹102? Ans 1. 23% 2. 30% 3. 25% ✓ 4. 27%	Question ID : 441009894464 Correct Option : 3
Q.26 Velamala Simmanna was chosen for Lok Nayak Foundation's (LNF) literary award 2025 for his contributions to the promotion of which language and literature? Ans 1. Tamil 2. Kannada 3. Malayalam 4. Telugu ✓	Question ID : 4410091571217 Correct Option : 4

Q.27 A student scored 62 marks in theory and 22 marks in practical. The weightages of 7 and 3 are assigned to the theory and the practical components respectively for calculating the final score. The weighted average score of the student is: Ans 1. 50 ✓ 2. 54 3. 52 4. 56	Question ID : 4410091406942 Correct Option : 1
Q.28 Which of the following categories of fundamental rights is NOT correctly matched with their respective articles from the Constitution of India? Ans 1. Right against exploitation : Articles 23 & 24 2. Right to freedom : Articles 19–22 3. Right to equality : Articles 15–21 ✓ 4. Right to freedom of religion : Articles 25–28	Question ID : 441009189241 Correct Option : 3
Q.29 Which component is used to open or close an electric circuit? Ans 1. Resistor 2. Ammeter 3. Electric bulb 4. Switch ✓	Question ID : 4410091645859 Correct Option : 4
Q.30 Who among the following was a Sanskrit scholar and helped in opening about 35 girls' schools in Bengal? Ans 1. Swami Vivekananda 2. Ishwar Chandra Vidyasagar ✓ 3. Swami Dayanand Saraswati 4. Raja Ram Mohan Roy	Question ID : 4410091587099 Correct Option : 2

Section : Professional Ability

Q.31 What is acid-base catalysis in chemical kinetics? Ans 1. Formation of precipitate by acids or bases 2. Slowing of reaction by acids or bases 3. Neutralization of acids and bases 4. Acceleration of reaction by acids or bases ✓	Question ID : 4410091561468 Correct Option : 4
Q.32 Which of the following is a biological factor that can influence the design of a controlled drug delivery system? Ans 1. Enzyme activity ✓ 2. Tablet hardness 3. Packaging material 4. Stirring speed	Question ID : 4410091598472 Correct Option : 1

Q.33 Which statement best describes the action of cyanide in the respiratory chain? Ans 1. Cyanide increases glucose breakdown in glycolysis. 2. Cyanide acts as a substrate for ATP synthase. 3. Cyanide stimulates the citric acid cycle. 4. Cyanide blocks electron transfer to oxygen, preventing ATP production. ✓	Question ID : 4410091599234 Correct Option : 4
Q.34 If an emulsion separates into two layers that cannot be redispersed by shaking, what has likely occurred? Ans 1. Homogenization 2. Cracking ✓ 3. Creaming 4. Phase inversion	Question ID : 4410091702428 Correct Option : 2
Q.35 Which colorant is commonly used to impart a yellow color to oral liquid preparations? Ans 1. Carmoisine 2. Erythrosine 3. Sunset yellow ✓ 4. Brilliant blue	Question ID : 4410091557744 Correct Option : 3
Q.36 Which product is commonly produced using recombinant DNA (rDNA) technology? Ans 1. Aspirin 2. Ibuprofen 3. Vitamin C 4. Insulin ✓	Question ID : 4410091591981 Correct Option : 4
Q.37 A pharmaceutical company needs to sterilize heat-sensitive plastic syringes. Which chemical method is most suitable? Ans 1. Ethylene oxide gas sterilization ✓ 2. Direct flaming 3. Moist heat sterilization 4. Autoclaving	Question ID : 4410091589470 Correct Option : 1
Q.38 Consumer buying behaviour is referred to which of the following process? Ans 1. Manufacturing products for sale 2. Storing products for future use 3. Selecting, using, or disposing products to satisfy needs and desires ✓ 4. Transporting products to retail stores	Question ID : 4410091714836 Correct Option : 3

Q.39 In the preparation of Arista, what is the role of keeping the fermentation container in a special room, underground cellar, or heap of paddy? Ans 1. To expose the mixture to sunlight 2. To add aroma from surroundings 3. To maintain a constant temperature during fermentation ✓ 4. To cool down the mixture rapidly	Question ID : 4410091702760 Correct Option : 3
Q.40 In acid-base titrations, which indicator would you select for titrating a weak acid with a strong base and why? Ans 1. Litmus, because it changes color in all types of titrations. 2. Bromothymol blue, because it changes color at pH 6. 3. Phenolphthalein, because its endpoint pH matches the equivalence point of the titration. ✓ 4. Methyl orange, because it changes color at pH 4.	Question ID : 4410091694759 Correct Option : 3
Q.41 What is the primary mechanism by which phentermine decreases appetite? Ans 1. By blocking serotonin receptors 2. By inhibiting intestinal absorption of fats 3. By stimulating gastric acid secretion 4. By increasing norepinephrine and dopamine levels in the brain ✓	Question ID : 4410091701237 Correct Option : 4
Q.42 What is a major advantage of using non-invasive transmucosal routes such as nasal or rectal for drug administration? Ans 1. Reduced drug potency 2. Greater systemic availability ✓ 3. Delayed onset of action 4. Increased gastrointestinal irritation	Question ID : 4410091713672 Correct Option : 2
Q.43 When dilute hydrochloric acid catalyzes the inversion of sucrose, what is the observed order of the reaction? Ans 1. First order ✓ 2. Second order 3. Zero order 4. Third order	Question ID : 4410091714251 Correct Option : 1
Q.44 According to ICH guidelines, what is a primary purpose of conducting stability testing (Q1A-Q1F) on herbal drugs? Ans 1. To determine the geographical origin of the plant material 2. To ensure maintenance of quality and effectiveness throughout the shelf life ✓ 3. To establish manufacturing costs 4. To identify traditional uses of the herb	Question ID : 4410091702907 Correct Option : 2

Q.45 Which of the following statements best describes a strong acid in acid-base equilibria? Ans 1. Completely ionizes in water ✓ 2. Partially ionizes in water 3. Does not ionize in water 4. Forms a strong conjugate base	Question ID : 4410091569372 Correct Option : 1
Q.46 Which of the following best describes the content required in an efficacy dossier under EU guidelines for herbal products? Ans 1. Clinical data supporting therapeutic claims ✓ 2. Manufacturing site inspection reports 3. Adverse event reporting forms only 4. Certificates of analysis only	Question ID : 4410091696170 Correct Option : 1
Q.47 Which of the following illustrates why alphabetical classification of crude drugs may not be ideal for educational purposes? Ans 1. It highlights all chemical differences 2. It fails to teach relationships between drugs of similar sources ✓ 3. It only classifies synthetic drugs 4. It always groups drugs by part used	Question ID : 4410091696003 Correct Option : 2
Q.48 A chemist wants to reduce a ketone to an alkane in a basic medium using hydrazine. Which reaction mechanism should they select to achieve this transformation? Ans 1. Witting reaction 2. Wolff-Kishner reduction ✓ 3. Clemmensen reduction 4. Cannizzaro reaction	Question ID : 4410091695217 Correct Option : 2
Q.49 Which statement best describes dietary fibers in plants? Ans 1. They are parts like leaves, stems, fruits, and seeds that cannot be digested or absorbed by the body. ✓ 2. They are produced by animals. 3. They are nutrients easily absorbed by the body. 4. They are simple sugars used for immediate energy.	Question ID : 4410091703150 Correct Option : 1
Q.50 According to the Code of Pharmaceutical Ethics, which of the following is NOT permitted in advertising display materials for medicines by pharmacists? Ans 1. Displaying prices of medicines 2. Listing the pharmacist's qualifications 3. Promoting a healthy lifestyle 4. Using the word 'Cure' in reference to an ailment ✓	Question ID : 4410091702562 Correct Option : 4

Q.51 Which chemical sterilant is effective against bacterial spores but requires special handling due to toxicity? Ans 1. Isopropyl alcohol 2. Cresol 3. Chlorhexidine gluconate 4. Glutaraldehyde ✓	Question ID : 4410091559243 Correct Option : 4
Q.52 What is the primary function of dietary fiber in human digestive system? Ans 1. It increases cholesterol absorption. 2. It promotes healthy bowel movements. ✓ 3. It acts as a vitamin supplement. 4. It provides energy.	Question ID : 4410091599660 Correct Option : 2
Q.53 If an Asava preparation exhibits sour taste and excessive effervescence after fermentation, what is the most likely cause as per Ayurvedic formulation principles? Ans 1. Insufficient addition of sugar 2. Under-fermentation due to low temperature 3. Overuse of Dhataki flowers 4. Contamination by unwanted microorganisms ✓	Question ID : 4410091696334 Correct Option : 4
Q.54 Which form of chlorine is most commonly used for disinfecting water supplies and swimming pools? Ans 1. Hypochlorites ✓ 2. Fluorides 3. Chloramines 4. Iodophores	Question ID : 4410091558418 Correct Option : 1
Q.55 Which statement best describes the common chemical structure of aminoglycoside antibiotics? Ans 1. They lack any ring structure in their core 2. They contain a highly substituted 1,3-diaminocyclohexane central ring ✓ 3. They are characterized by a single amine group on a benzene ring 4. They have an unsubstituted cyclohexane ring	Question ID : 4410091695041 Correct Option : 2
Q.56 What is the primary mechanism of action of Ticlopidine as an antiplatelet drug? Ans 1. It directly activates thrombin receptors. 2. It increases platelet production in bone marrow. 3. It stimulates ADP release from platelets. 4. It blocks P2Y₁₁ type purinergic receptors on platelets and inhibits ADP-induced aggregation. ✓	Question ID : 4410091701229 Correct Option : 4

Q.57 Which organism produces aminoglycoside antibiotics? Ans 1. Yeasts 2. Fungi 3. Algae 4. Actinomycetes ✓	Question ID : 4410091561110 Correct Option : 4
Q.58 Which of the following best describes the main focus of pharmacology as a discipline? Ans 1. Study of drug pricing strategies 2. Study of drug packaging methods 3. Study of the effects of drugs on living systems ✓ 4. Study of drug compounding techniques	Question ID : 4410091689116 Correct Option : 3
Q.59 Which of the following best describes a consumer in pharmaceutical marketing? Ans 1. A wholesaler who buys products to sell to others 2. A retailer who stocks products for sale 3. A company purchasing products to manufacture other goods 4. An individual who buys products for personal use and not for resale ✓	Question ID : 4410091714835 Correct Option : 4
Q.60 Which drug is commonly used to prevent stroke in patients with a history of Transient ischemic attack? Ans 1. Atorvastatin 2. Aspirin ✓ 3. Furosemide 4. Digoxin	Question ID : 4410091689219 Correct Option : 2
Q.61 In CRDDS, why should the absorption rate be faster than the release rate from the dosage form? Ans 1. To prevent dose dumping ✓ 2. To increase shelf life 3. To improve taste masking 4. To enhance packaging	Question ID : 4410091713854 Correct Option : 1
Q.62 A patient with an exocrine pancreatic deficiency is prescribed pancreatin. Based on the information given, which feature makes pancreatin appropriate for this patient? Ans 1. It acts as a gastric acid suppressant to reduce stomach acidity. 2. It stimulates insulin secretion from the pancreas. 3. It provides enzymes (amylase, trypsin, lipase) needed for digestion. ✓ 4. It directly increases appetite through central nervous system stimulation.	Question ID : 4410091701243 Correct Option : 3

Q.63 Which scenario best illustrates a practical challenge when using alphabetical classification for large pharmacopoeias? Ans 1. Grouping drugs by plant parts 2. Assigning drugs by chemical structure 3. Difficulty in locating a drug if its spelling is unknown ✓ 4. Classifying drugs by their pharmacological action	Question ID : 4410091696002 Correct Option : 3
Q.64 According to the Bronsted-Lowry concept, which of the following acts as a proton donor? Ans 1. Ammonia 2. Water 3. Sodium chloride 4. Hydrochloric acid ✓	Question ID : 4410091557604 Correct Option : 4
Q.65 What is the common functional group present in both aldehydes and ketones? Ans 1. Amino group 2. Carboxyl group 3. Carbonyl group ✓ 4. Hydroxyl group	Question ID : 4410091560387 Correct Option : 3
Q.66 Which of the following is a common advantage of suspensions as biphasic liquid dosage forms? Ans 1. Do not require shaking before use 2. Can mask the taste of unpleasant drugs ✓ 3. Remain physically stable without agitation 4. Never separate into layers	Question ID : 4410091588764 Correct Option : 2
Q.67 Which of the following is not a natural coloring agent used in monophasic liquid dosage forms? Ans 1. Coal-tar ✓ 2. Cochineal 3. Caramel 4. Carotenoids	Question ID : 4410091589294 Correct Option : 1
Q.68 What is a disadvantage of suspensions when compared to solutions? Ans 1. Suspensions require shaking before use to ensure uniformity of dose ✓ 2. Suspensions are never used for insoluble drugs 3. Suspensions have faster absorption than solutions 4. Suspensions do not require containers	Question ID : 4410091558186 Correct Option : 1

Q.69 Which colorant is most suitable for use in a syrup intended for children, to improve appearance? Ans 1. Oil-based pigment 2. Activated charcoal 3. Metallic powder 4. Water-soluble food dye ✓	Question ID : 4410091589302 Correct Option : 4
Q.70 In subcutaneous administration, which property of the drug does not affect its absorption rate? Ans 1. Molecular weight 2. Lipid solubility 3. Gastric emptying time ✓ 4. Ionization of the drug	Question ID : 4410091559624 Correct Option : 3
Q.71 What is the function of a vector in molecular cloning? Ans 1. To separate DNA fragments by size 2. To sequence DNA bases 3. To replicate inserted DNA in a host cell ✓ 4. To cut DNA fragments	Question ID : 4410091560034 Correct Option : 3
Q.72 According to the Code of Pharmaceutical Ethics, what is the ethical stance on using patient testimonials in pharmaceutical advertisements? Ans 1. Patient testimonials should not be used as they may mislead the public. ✓ 2. Patient testimonials are mandatory for all new drugs. 3. Patient testimonials are encouraged if approved by the company. 4. Patient testimonials can be used only if the patient is a celebrity.	Question ID : 4410091692408 Correct Option : 1
Q.73 How does the construction of a super centrifuge minimize emulsification during separation of two immiscible liquids? Ans 1. By using a rough, textured interior surface to break up droplets. 2. By heating the mixture to decrease viscosity. 3. By introducing air bubbles to agitate the mixture. 4. By having a smooth, high-speed rotating bowl and gentle feed entry to reduce turbulence. ✓	Question ID : 4410091691704 Correct Option : 4
Q.74 Which dietary fiber, when fermented by colonic bacteria, produces short-chain fatty acids beneficial for gut health? Ans 1. Inulin ✓ 2. Chitin 3. Cellulose 4. Lignin	Question ID : 4410091562039 Correct Option : 1

Q.75 According to the earlier concept, what taste is characteristic of an acid? Ans 1. Bitter 2. Salty 3. Sour ✓ 4. Sweet	Question ID : 4410091560165 Correct Option : 3
Q.76 A patient is suspected to have ingested a compound with a carbonyl group that does not react with Fehling's solution. Which of the following is most likely? Ans 1. The compound is an alcohol 2. The compound is a carboxylic acid 3. The compound is a ketone ✓ 4. The compound is an aldehyde	Question ID : 4410091599165 Correct Option : 3
Q.77 An emulsifying agent is used to stabilize an oil-in-water emulsion because of its: Ans 1. High sweetness 2. Ability to reduce interfacial tension ✓ 3. Strong odor 4. Bright color	Question ID : 4410091591629 Correct Option : 2
Q.78 If an instrument is being installed in a new lab, which qualification phase should be documented according to the context? Ans 1. Design Qualification 2. Process Validation 3. Vendor Qualification 4. Installation Qualification ✓	Question ID : 4410091558128 Correct Option : 4
Q.79 Which factor enhances drug absorption from a rectal suppository? Ans 1. Presence of food in the rectum 2. High gastric acidity 3. Thickened skin 4. Increased local blood flow ✓	Question ID : 4410091591833 Correct Option : 4
Q.80 Why is recombinant DNA technology preferred for vaccine development over traditional methods? Ans 1. It improves drug flavor. 2. It reduces tablet bitterness. 3. It increases pill size. 4. It allows precise antigen production. ✓	Question ID : 4410091592000 Correct Option : 4

Q.81 Which term describes substances that can both donate and accept a proton in acid-base titrations? Ans 1. Amphiprotic substances ✓ 2. Protogenic substances 3. Protophilic substances 4. Aprotic substances	Question ID : 4410091695173 Correct Option : 1
Q.82 What is the main physiological consequence of an acute myocardial infarction? Ans 1. Enhanced oxygen delivery 2. Increased cardiac output 3. Decreased contractility of heart muscle ✓ 4. Improved electrical conduction	Question ID : 4410091559792 Correct Option : 3
Q.83 What type of mixtures can be effectively separated using a super centrifuge? Ans 1. Single-phase liquid systems 2. Homogeneous gaseous mixtures 3. Dry powders with different particle sizes 4. Liquid suspensions containing very fine solid particles ✓	Question ID : 4410091591323 Correct Option : 4
Q.84 Which type of dietary fibre is primarily responsible for bulking stool and facilitating the quick passage of waste through the elementary canal? Ans 1. Water-insoluble fibre ✓ 2. Dietary fat 3. Soluble fibre 4. Simple carbohydrates	Question ID : 4410091703158 Correct Option : 1
Q.85 A manufacturer observes phase separation in an oil-in-water emulsion stored at room temperature. Which formulation adjustment should be considered to address this disadvantage? Ans 1. Optimizing the concentration of emulsifying agents ✓ 2. Omitting flavoring agents 3. Reducing the use of preservatives 4. Decreasing the drug particle size	Question ID : 4410091557703 Correct Option : 1
Q.86 A pharmacy wants to attract more customers by putting up posters that claim their products work faster than any other and guarantee a cure for specific illnesses. According to the Code of Pharmaceutical Ethics, what is the main ethical issue with this advertising approach? Ans 1. It fails to mention product prices 2. It contains misleading and exaggerated claims, and uses the word 'Cure' ✓ 3. It only advertises prescription medicines 4. It provides too much technical information	Question ID : 4410091702566 Correct Option : 2

Q.87 How does studying consumer behaviour assist drug stores in managing their business? Ans 1. By ignoring market trends 2. By helping to judge demands and calculate expenditure ✓ 3. By increasing advertising costs 4. By focusing only on wholesale buyers	Question ID : 4410091714841 Correct Option : 2
Q.88 Which statement best explains why oligomycin inhibits ATP synthesis in mitochondria? Ans 1. It binds to ATP synthase and blocks proton channels, preventing proton re-entry into the matrix ✓ 2. It inhibits the adenine nucleotide carrier, preventing ADP supply 3. It reacts with reduced cytochrome to inhibit oxygen binding 4. It binds to cytochrome oxidase and blocks electron transfer	Question ID : 4410091695089 Correct Option : 1
Q.89 A pharmacist is trying to explain how a drug works in the body. Which branch of pharmacology is most relevant to this explanation? Ans 1. Pharmacodynamics ✓ 2. Pharmaceutics 3. Biochemistry 4. Anatomy	Question ID : 4410091557260 Correct Option : 1
Q.90 Under ICH guidelines, clinical efficacy evaluation must include which of the following? Ans 1. Only animal study results 2. Labeling information 3. Results from stability testing only 4. Evidence from well-designed human trials ✓	Question ID : 4410091696166 Correct Option : 4
Q.91 What is the most common cause of acute myocardial infarction? Ans 1. Viral infection 2. Bacterial infection 3. Atherosclerosis ✓ 4. Hypertension	Question ID : 4410091557130 Correct Option : 3
Q.92 Ticagrelor differs from clopidogrel by which mechanism of action? Ans 1. Ticagrelor increases cAMP, clopidogrel decreases cAMP 2. Ticagrelor is a reversible P2Y12 inhibitor, while clopidogrel is irreversible ✓ 3. Ticagrelor is a glycoprotein IIb/IIIa antagonist, clopidogrel is not 4. Ticagrelor inhibits COX-1, clopidogrel inhibits COX-2	Question ID : 4410091689205 Correct Option : 2

Q.93 If a controlled drug delivery system is designed without considering the uniformity of absorption, what is the most likely negative outcome? Ans 1. Better taste masking 2. Inconsistent drug levels in the body ✓ 3. Improved packaging 4. Enhanced color stability	Question ID : 4410091713856 Correct Option : 2
Q.94 According to international guidelines, which qualification phase would you focus on when you want to ensure that equipment performs consistently within defined limits during actual process runs? Ans 1. Performance Qualification ✓ 2. Operational Qualification 3. Design Qualification 4. Installation Qualification	Question ID : 4410091557647 Correct Option : 1
Q.95 Which of the following factors does NOT affect acid strength? Ans 1. Bond strength between hydrogen and the rest of the molecule 2. Concentration of acid ✓ 3. Electronegativity of the central atom 4. Resonance stabilization	Question ID : 4410091557608 Correct Option : 2
Q.96 A pharmacist is using the British Pharmacopoeia to look up drugs. Based on the context, which classification is most likely being used? Ans 1. Botanical classification 2. Therapeutic classification 3. Pharmacodynamic classification 4. Alphabetical classification ✓	Question ID : 4410091561388 Correct Option : 4
Q.97 Which risk factor for myocardial infarction cannot be modified? Ans 1. Age ✓ 2. Poor oral hygiene 3. Smoking 4. Obesity	Question ID : 4410091555693 Correct Option : 1
Q.98 In an acid-base catalyzed reaction, what is the main function of the acid or base? Ans 1. To increase the rate of the chemical reaction ✓ 2. To change the reaction product 3. To stop the reaction 4. To decrease the reaction temperature	Question ID : 4410091599301 Correct Option : 1

Q.99 To ensure long-term stability of an emulsion, which combination of factors should be prioritized?

Ans

1. Disperse phase concentration above 70%, storage at room temperature, minimal emulsifier
2. Disperse phase concentration below 20%, warm storage, excess emulsifier
3. Disperse phase concentration of 55%, storage in sunlight, reduced emulsifier
4. Disperse phase concentration of 40%, storage in cool place, adequate emulsifying agent ✓

Question ID :
4410091702443
Correct Option : 4

Q.100 What is the main process involved in the preparation of Asavas and Aristas?

Ans

1. Fermentation ✓
2. Distillation
3. Sublimation
4. Filtration

Question ID :
4410091702747
Correct Option : 1