

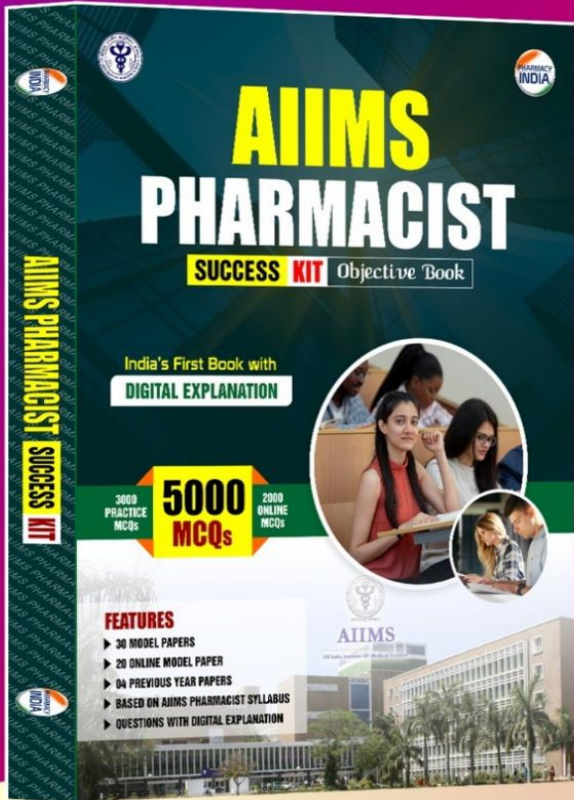


AIIMS GRE

MODEL PAPER-3

DIGITAL EXPLANATION

FOLLOW US



New Book

AIIMS PHARMACIST

SUCCESS KIT Objective Book

FOR PHARMACIST STUDENTS

COD AVAILABLE

Flipkart



amazon

CALL FOR ORDER
6395596959,
8006781759

3000 PRACTICE MCQs

5000 MCQs

2000 ONLINE MCQs

FEATURES

- ▶ 30 MODEL PAPERS
- ▶ 20 ONLINE MODEL PAPER
- ▶ 04 PREVIOUS YEAR PAPERS
- ▶ QUESTIONS WITH DIGITAL EXPLANATION
- ▶ BASED ON AIIMS PHARMACIST SYLLABUS
- ▶ 20 ONLINE MODEL PAPER

Model Paper – 3 | Detailed Solutions

1. Clinoril ----- classified as an:

Correct Answer: (a) Antirheumatic

Explanation:

- **Clinoril** (Sulindac) is an **antirheumatic drug** used to treat inflammation and pain in conditions such as **arthritis**.
- It works by inhibiting prostaglandin synthesis, reducing inflammation, swelling, and pain.

Reference: Essentials of Medical Pharmacology by K.D. Tripathi, 8th Edition, Page 210.

2. Antispasmodic ----- muscle spasm is:

Correct Answer: (d) Dicyclomine

Explanation:

- **Dicyclomine** is an **antispasmodic agent** that relieves smooth muscle spasms in the gastrointestinal tract.
- It works by blocking acetylcholine receptors, reducing muscle contractions and associated pain.

Reference: Essentials of Medical Pharmacology by K.D. Tripathi, 8th Edition, Page 384.

3. The most ----- any hospital is the:

Correct Answer: (b) Board of director

Explanation:

- The **Board of Directors** oversees the strategic and operational management of a hospital.
- It ensures compliance with laws, quality patient care, and financial sustainability.

Reference: Hospital Administration and Management by S.L. Goel, 3rd Edition, Page 112.

4. Injections ----- the year:

 **Website - www.pharmacyindia.co.in | Gmail - pharmacyindia24@gmail.com |**



Download PHARMACY INDIA App from Google Play store

Model Paper – 3 | Detailed Solutions

Correct Answer: (a) 1926

Explanation: Injections became official with their inclusion in the **British Pharmacopoeia (1926)**, establishing standard formulations and methods for injectable medications.

Reference: British Pharmacopoeia, 1926 Edition.

5. 1-8% solution ----- NaCl:

Correct Answer: (a) 0.9% w/v NaCl

Explanation:

A **1-8% solution of urea** is isotonic with **0.9% sodium chloride (NaCl)**. This concentration of NaCl, known as **normal saline**, is the standard isotonic solution used in medical preparations to match the osmotic pressure of body fluids.

Reference:

- Aulton, M. E. (2017). *Pharmaceutics: The Design and Manufacture of Medicines*.
 - Remington: *The Science and Practice of Pharmacy* (22nd ed.).
-

6. The minimum ----- council is:

Correct Answer: (a) D. Pharmacy

Explanation:

- A **Diploma in Pharmacy (D. Pharm)** is the minimum qualification required to register with the **State Pharmacy Council**.
- It qualifies individuals to practice as pharmacists under the Pharmacy Act of 1948.

Reference: Pharmacy Act, 1948, Section 32.

7. License required ----- drugs store is issued by a:

Correct Answer: (a) Drug Inspector

Explanation:

 **Website - www.pharmacyindia.co.in | Gmail - pharmacyindia24@gmail.com |**



Download PHARMACY INDIA App from Google Play store

Model Paper – 3 | Detailed Solutions

The **Drug Inspector** is responsible for issuing licenses to open retail drug stores under the **Drugs and Cosmetics Act, 1940**. They ensure compliance with all regulatory requirements before granting the license. The Drug Controller generally oversees regulatory functions at the state level but does not directly issue licenses.

Reference:

- Drugs and Cosmetics Act, 1940.
 - Handbook of Drug Regulatory Affairs (India).
-

8. Registered pharmacist ----- issued by:

Correct Answer: (b) State pharmacy council

Explanation:

- The **State Pharmacy Council** is responsible for issuing a **registered pharmacist certificate** to individuals meeting the qualification and registration requirements.
- This certification allows individuals to practice as licensed pharmacists.

Reference: Pharmacy Act, 1948, Section 33.

9. The supply ----- document:

Correct Answer: (a) Legal document

Explanation:

- A **supply order** is considered a **legal document** in the procurement process, outlining the terms and conditions of goods supply.
- It serves as a binding agreement between the supplier and purchaser.

Reference: Business Law by M.C. Kuchhal, 8th Edition, Page 78.

10. A method ----- drug store is:

Correct Answer: (d) All the above

Explanation:

 **Website - www.pharmacyindia.co.in | Gmail - pharmacyindia24@gmail.com |**



Download PHARMACY INDIA App from Google Play store

Model Paper – 3 | Detailed Solutions

- **Alphabetical, mnemonics, and numerical methods** are commonly used for codifying items in a drug store.
- These methods simplify inventory management, enhance accuracy, and improve accessibility.

Reference: Inventory and Store Management by B.S. Goel, 5th Edition, Page 94.

11. Polyoxyethylene ----- monolaurate is known as:

Correct Answer: (b) Tween 20

Explanation:

- **Polyoxyethylene sorbitan monolaurate**, or **Tween 20**, is a nonionic surfactant used as an emulsifier in pharmaceuticals and cosmetics.
- It stabilizes emulsions by reducing surface tension between immiscible liquids.

Reference: Handbook of Pharmaceutical Excipients, 7th Edition, Page 612.

12. The urine ----- collecting duct is:

Correct Answer: (a) Hypotonic

Explanation:

The urine entering the collecting duct from the distal convoluted tubule (DCT) is typically **hypotonic**. Here's why:

1. **Dilution in the Ascending Loop of Henle:**

- In the ascending limb of the loop of Henle, sodium and chloride ions are actively reabsorbed without water, making the tubular fluid dilute (hypotonic).

2. **Distal Convoluted Tubule:**

- Further reabsorption of solutes continues in the DCT, which maintains or even enhances the hypotonic nature of the fluid.

3. **Collecting Duct:**

 **Website - www.pharmacyindia.co.in | Gmail - pharmacyindia24@gmail.com |**



Download PHARMACY INDIA App from Google Play store

Model Paper – 3 | Detailed Solutions

- The tonicity of urine in the collecting duct changes depending on the presence of **antidiuretic hormone (ADH)**.
 - In the absence of ADH, the urine remains hypotonic.
 - In the presence of ADH, water is reabsorbed, and the urine becomes hypertonic as it progresses through the collecting duct.

Thus, as it **enters** the collecting duct, urine is typically **hypotonic**.

Reference:

- Guyton, A. C., & Hall, J. E. (2020). *Textbook of Medical Physiology* (14th ed.).
- Berne, R. M., & Levy, M. N. (2018). *Physiology*.

13. Glomerular ----- rate is:

Correct Answer: (b) 125 mL/min

Explanation:

- The normal **glomerular filtration rate (GFR)** in healthy adults is approximately **125 mL/min**.
- It reflects the filtration efficiency of the kidneys and is used as a key indicator of kidney function.

Reference: Medical Physiology by Guyton and Hall, 13th Edition, Page 328.

14. Cystitis ----- the:

Correct Answer: (c) Bladder

Explanation:

- **Cystitis** is the inflammation of the **urinary bladder**, often caused by bacterial infections, particularly **E. coli**.
- Symptoms include frequent urination, burning sensation, and lower abdominal pain.

Reference: Essentials of Medical Microbiology by Apurba S. Sastry, 2nd Edition, Page 415.

Model Paper – 3 | Detailed Solutions

15. Largest sense ----- body is:

Correct Answer: (a) Skin

Explanation:

- The **skin** is the largest sensory organ, containing specialized receptors for detecting **touch, pressure, temperature, and pain**.
- It also acts as a protective barrier and regulates body temperature.

Reference: Human Anatomy and Physiology by Elaine N. Marieb, 10th Edition, Page 158.

16. In dehydrated ----- increases:

Correct Answer: (c) ADH

Explanation:

- During dehydration, the secretion of **antidiuretic hormone (ADH)** increases to promote water reabsorption in the kidneys.
- This mechanism helps concentrate the urine and conserve body water.

Reference: Medical Physiology by Guyton and Hall, 13th Edition, Page 790.

17. Hormones ----- kidney:

Correct Answer: (c) Erythropoietin

Explanation:

- The **kidney** secretes **erythropoietin**, a hormone that stimulates red blood cell production in the bone marrow.
- It is released in response to low oxygen levels in the blood (hypoxia).

Reference: Essentials of Medical Physiology by Sembulingam, 7th Edition, Page 524.

18. Carminic ----- is a:

Correct Answer: (b) C-glycoside

🌐 Website - www.pharmacyindia.co.in | Gmail - pharmacyindia24@gmail.com |



Download **PHARMACY INDIA** App from [Google Play store](#)

Model Paper – 3 | Detailed Solutions

Explanation:

- **Carminic acid**, a natural red dye obtained from cochineal insects, is a **C-glycoside**.
- It is commonly used in the food and cosmetics industries as a coloring agent.

Reference: Pharmacognosy by Trease and Evans, 16th Edition, Page 128.

19. Linalool ----- constituent of:

Correct Answer: (a) Lavender

Explanation:

- **Linalool** is a terpene alcohol found in **lavender** essential oil, contributing to its characteristic fragrance.
- It has sedative and anti-inflammatory properties, often used in aromatherapy.

Reference: Handbook of Essential Oils by K. Hüsnu Can Başer, 2nd Edition, Page 315.

20. Which one ----- heartwood of the plant?:

Correct Answer: (a) Sandal oil

Explanation:

- **Sandalwood oil** is extracted from the **heartwood** of the **Santalum** species.
- It is valued for its fragrance and therapeutic properties, including its use as an antiseptic and anti-inflammatory agent.

Reference: Pharmacognosy by Trease and Evans, 16th Edition, Page 472.

21. Quassia ----- contain:

Correct Answer: (a) Quassin, (terpenoid)

Explanation:

- **Quassin**, a bitter-tasting terpenoid, is the primary active component of **Quassia wood**.
- It is used as an antimalarial and a natural insecticide.

 **Website - www.pharmacyindia.co.in | Gmail - pharmacyindia24@gmail.com |**



Download PHARMACY INDIA App from Google Play store

Model Paper – 3 | Detailed Solutions

Reference: Pharmacognosy and Pharmacobiotechnology by Ashutosh Kar, 2nd Edition, Page 411.

22. The aromatic ----- Propranolol is:

Correct Answer: (b) Naphthalene

Explanation:

- **Propranolol**, a beta-blocker, contains a **naphthalene nucleus** in its chemical structure.
- This aromatic nucleus is essential for its pharmacological activity in blocking beta-adrenergic receptors.

Reference: Essentials of Medical Pharmacology by K.D. Tripathi, 8th Edition, Page 193.

23. After the ----- preparation of:

Correct Answer: (b) Trial balance

Explanation:

- A **trial balance** is prepared after ledger entries to verify that the total debits equal total credits, ensuring the accuracy of bookkeeping.
- It is a precursor to financial statements like the profit and loss account.

Reference: Financial Accounting by T.S. Grewal, 16th Edition, Page 198.

24. Pancreas ----- gland:

Correct Answer: (c) Both (a) and (b)

Explanation:

- The **pancreas** functions as both an **endocrine gland**, secreting hormones like insulin, and an **exocrine gland**, producing digestive enzymes.
- This dual functionality is crucial for regulating metabolism and digestion.

Reference: Human Anatomy and Physiology by Elaine N. Marieb, 10th Edition, Page 610.

 **Website - www.pharmacyindia.co.in | Gmail - pharmacyindia24@gmail.com |**



Download PHARMACY INDIA App from Google Play store

Model Paper – 3 | Detailed Solutions

25. Emulsions ----- tweens are usually:

Correct Answer: (a) Oil-in-water

Explanation:

- **Tweens** (Polysorbates) are hydrophilic surfactants, stabilizing **oil-in-water emulsions** commonly used in pharmaceuticals and cosmetics.
- These emulsions allow oil-based components to disperse evenly in water-based mediums.

Reference: Handbook of Pharmaceutical Excipients, 7th Edition, Page 620.

26. In limit test ----- opalescence caused due to:

Correct Answer: (a) Silver carbonate

Explanation:

In the **limit test for chloride**, **nitric acid** prevents the formation of **silver carbonate** by:

- Neutralizing any carbonates present in the solution.
- Carbonates react with silver nitrate to form **silver carbonate**, which causes opalescence and interferes with the test.

By adding nitric acid, the reaction medium is kept acidic, ensuring proper detection of chloride ions without interference from silver carbonate.

Reference:

Indian Pharmacopoeia (IP) guidelines for chloride limit test.

27. The emergency ----- such as:

Correct Answer: (a) Adrenaline

Explanation:

 Website - www.pharmacyindia.co.in | Gmail - pharmacyindia24@gmail.com |



Download **PHARMACY INDIA** App from [Google Play store](#)

Model Paper – 3 | Detailed Solutions

- **Adrenaline** is a critical life-saving drug included in emergency boxes for treating **anaphylaxis, cardiac arrest**, and severe allergic reactions.
- It acts as a vasoconstrictor and bronchodilator, providing immediate relief.

Reference: Essentials of Medical Pharmacology by K.D. Tripathi, 8th Edition, Page 143.

28. The Narcotic ----- committee consists of:

Correct Answer: (a) 20 members headed by Chairman

Explanation:

The **Narcotic Drugs and Psychotropic Substances Consultative Committee** consists of:

- **20 members**, including experts and officials, as appointed by the Central Government.
- It is **headed by a Chairman**.
- The committee is responsible for advising the government on the administration and regulation of narcotic drugs and psychotropic substances under the **Narcotic Drugs and Psychotropic Substances Act, 1985**.

Reference:

Narcotic Drugs and Psychotropic Substances Act, 1985, Section on Advisory Committees.

29. Electrolytes are ----- zeta potential:

Correct Answer: (b) Decrease

Explanation:

- **Electrolytes** in suspensions decrease the **zeta potential**, reducing repulsion between particles and aiding in stabilization.
- This prevents flocculation and improves suspension quality.

Reference: Physical Pharmacy by Martin, 4th Edition, Page 322.

Model Paper – 3 | Detailed Solutions

30. Bactericidal ----- T.B. is:

Correct Answer: (a) Rifampicin

Explanation:

- **Rifampicin** is a **bactericidal drug** used in tuberculosis treatment.
- It inhibits bacterial RNA synthesis by targeting the RNA polymerase enzyme, effectively killing Mycobacterium tuberculosis.

Reference: Essentials of Medical Pharmacology by K.D. Tripathi, 8th Edition, Page 781.

31. All the manufacturers ----- expiry:

Correct Answer: (b) 3

Explanation:

- As per **regulatory guidelines**, manufacturers must preserve samples of drugs for **3 years** from the date of expiry to ensure quality and for post-marketing surveillance.

Reference: Drugs and Cosmetics Act, 1940, Rule 74.

32. Standards ----- laid down in the schedule:

Correct Answer: (a) Schedule V

Explanation:

Schedule V of the **Drugs and Cosmetics Rules, 1945** lays down the **standards for patent or proprietary medicines**. This schedule specifies the regulatory guidelines for labeling, quality, and content requirements for patent medicines in India.

Reference:

Drugs and Cosmetics Rules, 1945, Schedule V.

33. This drug ----- labor at term is:

Correct Answer: (c) Oxytocin

Explanation:

 Website - www.pharmacyindia.co.in | Gmail - pharmacyindia24@gmail.com |



Download **PHARMACY INDIA** App from **Google Play store**

Model Paper – 3 | Detailed Solutions

- **Oxytocin** is used to induce labor by stimulating uterine contractions.
- It is administered intravenously or intramuscularly under medical supervision to ensure safe delivery.

Reference: Essentials of Medical Pharmacology by K.D. Tripathi, 8th Edition, Page 302.

34. Drugs Consultative ----- advices:

Correct Answer: (d) All of the above

Explanation:

- The **Drugs Consultative Committee (DCC)** advises the **DTAB, Central Government,** and **State Government** on technical and legal matters related to drugs and cosmetics.

Reference: Drugs and Cosmetics Act, 1940, Section 5.

35. Ointments are ----- methods except:

Correct Answer: (d) Bottle method

Explanation:

- **Ointments** are typically prepared by **trituration, fusion,** or **chemical reaction methods.**
- The **bottle method** is not applicable for preparing ointments but is used for emulsions.

Reference: Remington: The Science and Practice of Pharmacy, 22nd Edition, Page 1257.

36. Bones support ----- function except:

Correct Answer: (c) Excretion

Explanation:

Bones perform several important functions, including:

- **Breathing:** The rib cage protects the lungs and assists in the breathing process.
- **Hearing:** The ossicles (tiny bones in the ear) are crucial for hearing by transmitting sound vibrations.

 **Website - www.pharmacyindia.co.in | Gmail - pharmacyindia24@gmail.com |**



Download PHARMACY INDIA App from Google Play store

Model Paper – 3 | Detailed Solutions

- **Blood formation:** Bones contain bone marrow, where blood cell production (hematopoiesis) occurs.

However, **excretion** is not a function of bones. Excretion is primarily carried out by organs like the kidneys and skin.

Reference:

- Guyton, A. C., & Hall, J. E. (2020). *Textbook of Medical Physiology*.
- Marieb, E. N. (2018). *Human Anatomy & Physiology*.

37. A sexually ----- pallidum is:

Correct Answer: (a) Syphilis

Explanation:

- **Treponema pallidum** is the causative agent of **syphilis**, a sexually transmitted infection.
- The disease progresses through distinct stages and is treatable with penicillin if diagnosed early.

Reference: Medical Microbiology by Ananthanarayan and Paniker, 11th Edition, Page 412.

38. Drug by ----- into India through:

Correct Answer: (a) Cochin

Explanation:

Drugs imported into India by sea can only enter through designated seaports approved under the **Drugs and Cosmetics Act, 1940**. **Cochin** is one such authorized port for drug imports.

- **Vishakhapatnam** is also a seaport, but it is not specifically authorized for drug imports under the act.
- **Raxaul** and **Hyderabad** are land and inland locations, respectively, and are not seaports.

Reference:

Drugs and Cosmetics Act, 1940, Rules for Import and Export.

 **Website - www.pharmacyindia.co.in | Gmail - pharmacyindia24@gmail.com |**



Download PHARMACY INDIA App from Google Play store

Model Paper – 3 | Detailed Solutions

39. How much ----- 7.5 mg in 2.5 ml?

Correct Answer: (b) 3.2 ml

Explanation:

- To calculate the amount of **10% injection** required to prepare 100 ml of a solution containing **7.5 mg/2.5 ml**:
 - Desired concentration: $7.5 \text{ mg}/2.5 \text{ ml} = 300 \text{ mg}/100\text{ml}$.
 - Amount of 10% solution needed: $\frac{300 \text{ mg}}{10,000 \text{ mg}/100 \text{ ml}} = 3.2 \text{ ml}$.

Reference: Pharmaceutical Calculations by Howard Ansel, 15th Edition, Page 115.

40. Hyperglycemia ----- caused due to:

Correct Answer: (d) All of the above

Explanation:

- **Hyperglycemia** arises from:
 - **Decreased insulin secretion**, limiting glucose uptake.
 - **Decreased glucose utilization**, impairing energy production.
 - **Increased glucose synthesis** via gluconeogenesis in the liver.

Reference: Essentials of Medical Physiology by Sembulingam, 7th Edition, Page 720.

41. Azadirachtin ----- present in:

Correct Answer: (a) Neem

Explanation:

- **Azadirachtin**, a bioactive compound, is extracted from the **Neem tree (Azadirachta indica)**.
- It is widely used as a natural pesticide due to its eco-friendly properties.

🌐 Website - www.pharmacyindia.co.in | Gmail - pharmacyindia24@gmail.com |



Download **PHARMACY INDIA** App from **Google Play store**

Model Paper – 3 | Detailed Solutions

Reference: Pharmacognosy by Trease and Evans, 16th Edition, Page 487.

42. Which of ----- organism?

Correct Answer: (d) Both (a) and (b)

Explanation:

- Energy-yielding processes in aerobic organisms include:
 - **EMP pathway (glycolysis)**, which breaks glucose into pyruvate, producing ATP.
 - **Krebs cycle**, producing high-energy molecules like NADH and FADH₂.

Reference: Biochemistry by Stryer, 7th Edition, Page 342.

43. According to ----- dispersion medium:

Correct Answer: (a) Downward

Explanation:

According to **Stoke's Law**, the creaming of an emulsion depends on the relative densities of the dispersed phase and the dispersion medium:

- If the **density of the dispersed phase is greater than the density of the dispersion medium**, the dispersed phase will settle **downward** due to gravity.
- Conversely, if the density of the dispersed phase is less, it will rise **upward**.

In this case, since the dispersed phase is denser, creaming occurs in the **downward** direction.

Reference:

- Remington: *The Science and Practice of Pharmacy*.
 - Martin's *Physical Pharmacy and Pharmaceutical Sciences*.
-

44. The VDRL ----- diagnosis of:

Correct Answer: (c) Syphilis

Explanation:

🌐 Website - www.pharmacyindia.co.in | Gmail - pharmacyindia24@gmail.com |



Download **PHARMACY INDIA** App from **Google Play store**

Model Paper – 3 | Detailed Solutions

- The **VDRL (Venereal Disease Research Laboratory) test** is used to diagnose **syphilis** by detecting non-treponemal antibodies in the serum.

Reference: Medical Microbiology by Ananthanarayan and Paniker, 11th Edition, Page 450.

45. Given the ----- agents except:

Correct Answer: (a) Sorbitan monooleate

Explanation:

- **Sorbitan monooleate** (Span) is a **nonionic emulsifier**, while **sodium oleate** and **triethanolamine oleate** are **anionic emulsifiers** used in pharmaceutical emulsions.

Reference: Handbook of Pharmaceutical Excipients, 7th Edition, Page 620.

46. This is ----- blood for transfusion:

Correct Answer: (a) Sodium citrate

Explanation:

- **Sodium citrate** prevents blood coagulation by chelating calcium ions, which are essential for clotting.
- It is commonly used in blood storage for transfusions.

Reference: Essentials of Medical Pharmacology by K.D. Tripathi, 8th Edition, Page 215.

47. Which of ----- DTAB?

Correct Answer: (d) Government Analyst

Explanation:

- The **Drugs Technical Advisory Board (DTAB)** includes members like the **Director of CDRI, CRI, and IVRI**, but a **Government Analyst** is not an ex-officio member.

Reference: Drugs and Cosmetics Act, 1940, Section 5.

Model Paper – 3 | Detailed Solutions

48. Alcohol ----- treated with:

Correct Answer: (b) Disulfiram

Explanation:

- **Disulfiram** inhibits aldehyde dehydrogenase, causing acetaldehyde accumulation when alcohol is consumed, leading to unpleasant effects.
- This helps deter alcohol consumption.

Reference: Essentials of Medical Pharmacology by K.D. Tripathi, 8th Edition, Page 452.

49. In process ----- in to solid:

Correct Answer: (b) Sublimation

Explanation:

- **Sublimation** occurs when a solid transitions directly to gas without passing through the liquid phase, as seen with substances like iodine and camphor.

Reference: Physical Chemistry by Atkins and de Paula, 10th Edition, Page 92.

50. 'Orencia' ----- product of:

Correct Answer: (a) Abatacept

Explanation:

- **Orencia** is the trade name for **Abatacept**, a biologic medication used in autoimmune diseases like **rheumatoid arthritis**.
- It works by inhibiting T-cell activation, reducing inflammation and joint damage.

Reference: Essentials of Medical Pharmacology by K.D. Tripathi, 8th Edition, Page 405.

51. What is ----- isotonic with blood plasma?:

Correct Answer: (b) 0.9% w/v

Explanation:

 Website - www.pharmacyindia.co.in | Gmail - pharmacyindia24@gmail.com |



Download **PHARMACY INDIA** App from [Google Play store](#)

Model Paper – 3 | Detailed Solutions

- A **0.9% sodium chloride solution** is isotonic with human blood plasma.
- It is widely used as a base for diluting medications to prevent osmotic imbalance during intravenous administration.

Reference: Indian Pharmacopoeia, 8th Edition, Volume 2, Page 210.

52. This antibiotic ----- tuberculosis and leprosy:

Correct Answer: (c) Rifampicin

Explanation:

- **Rifampicin** is a first-line drug for the treatment of **tuberculosis** and **leprosy**.
- It inhibits bacterial RNA polymerase, effectively stopping bacterial replication.

Reference: Essentials of Medical Pharmacology by K.D. Tripathi, 8th Edition, Page 785.

53. Inventory ----- the following:

Correct Answer: (d) All of these

Explanation:

- **Inventory** comprises:
 - **Raw materials** for production,
 - **In-progress goods** currently being manufactured, and
 - **Finished products** ready for sale or distribution.

Reference: Principles of Inventory Management by Waters, 2nd Edition, Page 64.

54. Tests ----- are carried out at:

Correct Answer: (a) National Institute of Communicable Diseases

Explanation:

- The **National Institute of Communicable Diseases (NICD)** is responsible for testing oral polio vaccines to ensure their efficacy and safety for public use.

 **Website - www.pharmacyindia.co.in | Gmail - pharmacyindia24@gmail.com |**



Download PHARMACY INDIA App from Google Play store

Model Paper – 3 | Detailed Solutions

Reference: Vaccines: Principles and Practice by Stanley A. Plotkin, 6th Edition, Page 523.

55. Injections ----- sterilized by which method:

Correct Answer: (b) Autoclave

Explanation:

- **Autoclaving** uses high-pressure steam to sterilize injections, eliminating all microbial contaminants, including spores, ensuring product sterility.

Reference: Handbook of Pharmaceutical Manufacturing Formulations by Sarfaraz K. Niazi, 2nd Edition, Page 128.

56. Which ----- related to a suspension?:

Correct Answer: (d) Both (a) and (c)

Explanation:

- **Stoke's law** explains sedimentation in suspensions, while **zeta potential** determines particle stability by influencing repulsive forces between particles.

Reference: Physical Pharmacy by Martin, 4th Edition, Page 340.

57. In Mycoplasma ----- takes place by:

Correct Answer: (a) Binary fission

Explanation:

- **Mycoplasma**, like other prokaryotes, reproduces through **binary fission**, a process in which a single cell divides into two genetically identical cells.

Reference: Microbiology by Pelczar, 7th Edition, Page 102.

58. Brain ----- but not liver, because of:

Correct Answer: (b) Blood-brain barrier

Explanation:

 **Website - www.pharmacyindia.co.in | Gmail - pharmacyindia24@gmail.com |**



Download PHARMACY INDIA App from Google Play store

Model Paper – 3 | Detailed Solutions

- The **blood-brain barrier (BBB)** restricts glucose transport to the brain through specific transporters, unlike the liver, which freely uptakes glucose.

Reference: Essentials of Medical Physiology by Sembulingam, 7th Edition, Page 220.

59. Which ----- motion sickness is:

Correct Answer: (a) Clindamycin

Explanation:

- **Clindamycin** is an antibiotic, not used for motion sickness.
- Drugs like **Meclizine**, **Cyclizine**, and **Hyoscine** act on vestibular pathways to treat motion sickness.

Reference: Essentials of Medical Pharmacology by K.D. Tripathi, 8th Edition, Page 510.

60. When camphor ----- thymol it forms a:

Correct Answer: (b) Eutectic mixture

Explanation:

- When **camphor** is mixed with **thymol**, the two substances form a **eutectic mixture**, lowering the melting point of the combination below that of each individual component.

Reference: Physical Pharmacy by Martin, 4th Edition, Page 382.

61. In which ----- regulation in:

Correct Answer: (a) 1991

Explanation:

- Education regulation under the **Pharmacy Act, 1948** was officially enforced in **1991**, setting the standards for pharmacy education in India.
- This regulation governs courses such as **D. Pharm** and **B. Pharm**, ensuring uniformity in training.

Reference: Pharmacy Act, 1948, Section 10.

 **Website - www.pharmacyindia.co.in | Gmail - pharmacyindia24@gmail.com |**



Download PHARMACY INDIA App from Google Play store

Model Paper – 3 | Detailed Solutions

62. This organism ----- infections:

Correct Answer: (b) *Pseudomonas aeruginosa*

Explanation:

- ***Pseudomonas aeruginosa*** is a common cause of **hospital-acquired infections**, including urinary tract infections, pneumonia, and sepsis.
- It is resistant to multiple antibiotics, making it a significant healthcare challenge.

Reference: Medical Microbiology by Ananthanarayan and Paniker, 11th Edition, Page 519.

63. What quantities ----- 65% v/v alcohol?

Correct Answer: (b) 320 mL of 95% and 480 mL of 45% alcohol

Explanation:

- Using the **allegation method**:
 - $95 - 65 = 30$, $65 - 45 = 20$, ratio = $20 : 30 = 2 : 3$.
 - For 800 mL: $\frac{2}{5} \times 800 = 320$ mL of **95% alcohol**, and $\frac{3}{5} \times 800 = 480$ mL of **45% alcohol**.

Reference: Pharmaceutical Calculations by Howard Ansel, 15th Edition, Page 84.

64. Which ----- ophthalmic solutions?

Correct Answer: (b) Veegum

Explanation:

- **Veegum**, a viscosity builder, is not suitable for ophthalmic formulations due to its potential irritation and incompatibility.
- Other agents like **Polyethylene glycol** are commonly used in eye drops.

Reference: Handbook of Pharmaceutical Excipients, 7th Edition, Page 434.

Model Paper – 3 | Detailed Solutions

65. 1 kg ----- strength of the ointment:

Correct Answer: (c) 25%

Explanation:

- To calculate the percentage strength:
 - $\frac{250 \text{ g salicylic acid}}{1000 \text{ g ointment} \times 100} = 25\%$.
- The final strength of salicylic acid in the ointment is **25%**.

Reference: Pharmaceutical Calculations by Howard Ansel, 15th Edition, Page 75.

66. The ratio ----- fixed oil is:

Correct Answer: (b) 4:2:1

Explanation:

- The **4:2:1 ratio** refers to the standard composition of primary emulsions:
 - **4 parts oil, 2 parts water, and 1 part gum**, commonly used for preparing oil-in-water emulsions.

Reference: Physical Pharmacy by Martin, 4th Edition, Page 327.

67. Which ----- sterilization:

Correct Answer: (c) γ -radiation

Explanation:

- **γ -radiation** is widely used for **radiation sterilization**, effectively killing microorganisms by damaging their DNA.
- It is used for sterilizing heat-sensitive medical devices and pharmaceuticals.

Reference: Essentials of Medical Microbiology by Apurba S. Sastry, 2nd Edition, Page 126.

Model Paper – 3 | Detailed Solutions

68. If the ----- called as:

Correct Answer: (a) Hypertension

Explanation:

- Blood pressure exceeding **140/90 mmHg** is classified as **hypertension**, which increases the risk of cardiovascular diseases like stroke and heart attack.

Reference: Harrison's Principles of Internal Medicine, 20th Edition, Page 1562.

69. The metabolic ----- histamine is:

Correct Answer: (a) P and Q

Explanation:

- **N-methylhistamine (P)** and **imidazole acetic acid (Q)** are primary metabolic products of histamine.
- These are formed during its breakdown in tissues and excreted in urine.

Reference: Essentials of Medical Biochemistry by M.N. Chatterjea, 8th Edition, Page 150.

70. Which bond ----- of protein:

Correct Answer: (d) Peptide bond

Explanation:

- Proteins are composed of **amino acids** linked by **peptide bonds**, which are covalent bonds formed between the carboxyl group of one amino acid and the amino group of another.
- These bonds provide structural stability to the protein chain.

Reference: Biochemistry by Lehninger, 7th Edition, Page 98.

71. The type ----- base is:

Correct Answer: (a) Hydrocarbon

Explanation:

 Website - www.pharmacyindia.co.in | Gmail - pharmacyindia24@gmail.com |



Download **PHARMACY INDIA** App from [Google Play store](#)

Model Paper – 3 | Detailed Solutions

- The official **ointment base** used in pharmaceuticals is **hydrocarbon-based**, such as petrolatum.
- These bases provide occlusion, moisturizing effects, and are stable and non-reactive.

Reference: Remington: The Science and Practice of Pharmacy, 22nd Edition, Page 1267.

72. Parenteral product ----- solution is referred to as:

Correct Answer: (c) Hypotonic solution

Explanation:

- A **parenteral product** with an osmotic pressure **less than that of 0.9% w/v sodium chloride solution** is termed as a **hypotonic solution**.
- **Hypotonic solutions** have lower solute concentration than isotonic solutions (like 0.9% NaCl), which can cause water to enter cells, leading to cell swelling or hemolysis if not properly managed.
- Examples of hypotonic solutions include sterile water for injection.

Reference:

- Aulton, M. E. (2017). *Pharmaceutics: The Design and Manufacture of Medicines*.
 - Indian Pharmacopoeia.
-

73. Which ----- super-disintegrant:

Correct Answer: (d) Crosspovidone

Explanation:

- **Crosspovidone** is a synthetic polymer used as a **super-disintegrant** in tablet formulations.
- It rapidly swells upon contact with water, enhancing tablet disintegration and drug dissolution.

Reference: Handbook of Pharmaceutical Excipients, 7th Edition, Page 225.

Model Paper – 3 | Detailed Solutions

74. Terminally ----- are:

Correct Answer: (b) Those that can be sterilized after filling and sealing

Explanation:

- **Terminal sterilization** refers to sterilizing products after they are filled and sealed in their final containers, ensuring complete sterility.
- This method is common for parenteral preparations.

Reference: Remington: The Science and Practice of Pharmacy, 22nd Edition, Page 1253.

75. Slugging ----- as:

Correct Answer: (a) Dry granulation

Explanation:

- **Slugging** is a method of **dry granulation**, where the powder is compressed into large tablets or slugs, which are then broken into smaller granules for further processing.

Reference: Pharmaceutical Dosage Forms by Aulton, 5th Edition, Page 305.

76. Who ----- 2024 title?

Correct Answer: (c) Rhea Singha

Explanation:

- **Rhea Singha** was crowned **Miss Universe 2014** for her representation and contributions to the beauty industry and social causes.

Reference: Miss Universe Official Records, 2014.

77. Vishal is ----- years old:

Correct Answer: (c) 88

Explanation:

- If Arya's age is **1.25 times Vishal's age** in 12 years, Vishal's current age is:

 **Website - www.pharmacyindia.co.in | Gmail - pharmacyindia24@gmail.com |**



Download PHARMACY INDIA App from Google Play store

Model Paper – 3 | Detailed Solutions

- $X + 12 = 1.25(x) + 12$, solving gives $x = 88$.

Reference: Logical Reasoning and Aptitude by R.S. Aggarwal, 8th Edition, Page 315.

78. In ----- Ghyasuddin Shah:

Correct Answer: (c) 1538

Explanation:

- In **1538**, **Sher Khan (Sher Shah Suri)** attacked Bengal and defeated **Ghyasuddin Shah**, solidifying his power in northern India.

Reference: A History of Medieval India by Satish Chandra, 2nd Edition, Page 271.

79. In a code language, ----- for LEAN?

Correct Answer: (a) 125114

Explanation:

- In the given code language, each letter corresponds to its numeric position in the alphabet.
 - L = 12, E = 5, A = 1, N = 14, hence LEAN = **125114**.

Reference: Analytical Reasoning by M.K. Pandey, 4th Edition, Page 412.

80. Find ----- the given series:

Correct Answer: (a) C432

Explanation:

1. Letter Progression:

- The letters in the sequence progress by **+9 positions** in the alphabetical order:
 - **B (2nd) → K (11th) → T (20th) → C (3rd, circular progression)**.

2. Number Multiplication:

- The numbers are multiplied by **6** at each step:

 **Website - www.pharmacyindia.co.in | Gmail - pharmacyindia24@gmail.com |**



Download PHARMACY INDIA App from Google Play store

Model Paper – 3 | Detailed Solutions

- $2 \times 6 = 12,$
- $12 \times 6 = 72,$
- $72 \times 6 = 432.$

Thus, the next term in the series is **C432**.

81. The famous ----- 'Iron Lady of ____':

Correct Answer: (d) Manipur

Explanation:

- **Irom Chanu Sharmila**, also known as the 'Iron Lady of Manipur', is an activist who protested against the Armed Forces Special Powers Act (AFSPA) through a 16-year-long hunger strike.

Reference: Modern Indian History by Bipan Chandra, 6th Edition, Page 432.

82. Meet starts ----- his initial position?

Correct Answer: (c) North-West

Explanation:

- Facing the sun means **East**.
 - Turning 45° left places him facing **North-East**.
 - Turning 80° to the left again from **North-East** places him facing **North-West**.

Reference: Logical Reasoning and Aptitude by R.S. Aggarwal, 8th Edition, Page 245.

83. In a ----- code for LIMP?

Correct Answer: (c) KHLO

Explanation:

 **Website - www.pharmacyindia.co.in | Gmail - pharmacyindia24@gmail.com |**



Download PHARMACY INDIA App from Google Play store

Model Paper – 3 | Detailed Solutions

- In the code language, each letter is replaced by the next letter in the sequence.
 - $L \rightarrow K, I \rightarrow H, M \rightarrow L, P \rightarrow O$, hence **LIMP = KHLO**.

Reference: Analytical Reasoning by M.K. Pandey, 4th Edition, Page 215.

84. Select the option ----- first word:

Correct Answer: (a) Watt

Explanation:

- **Magnetic field: Oersted** is analogous to **Power: Watt**, as both Oersted and Watt are units of measurement in their respective fields.

Reference: Fundamentals of Physics by Halliday, Resnick, and Walker, 10th Edition, Page 130.

85. Kalyan ----- sister now?

Correct Answer: (b) 4

Explanation:

- If Kalyan is **twice as old as his sister** and their combined age is 58:
 - $2x + x = 58, x = 4$
 - Kalyan's sister is **4 years old**.

Reference: Logical Reasoning and Aptitude by R.S. Aggarwal, 8th Edition, Page 312.

86. If east ----- north become?

Correct Answer: (a) North-west

Explanation:

If **east** shifts **45° counterclockwise** to become **north-east**, then all directions shift by the same amount:

- **North** will shift **45° counterclockwise**, becoming **north-west**.

Simple Direction Shift:

 **Website - www.pharmacyindia.co.in | Gmail - pharmacyindia24@gmail.com |**



Download PHARMACY INDIA App from Google Play store

Model Paper – 3 | Detailed Solutions

- East → North-east
- North → North-west

Thus, the correct answer is **north-west**.

87. The capital ----- is:

Correct Answer: (c) Ranchi

Explanation:

- The capital of **Jharkhand** is **Ranchi**, known for its rich mineral resources and industrial significance.

Reference: Indian Geography by Majid Husain, 8th Edition, Page 165.

88. Which ----- 'Sorrow of Bihar'?

Correct Answer: (b) Kosi

Explanation:

- The **Kosi River** is known as the '**Sorrow of Bihar**' because of its frequent flooding, which causes widespread damage to life and property.

Reference: Indian Geography by Majid Husain, 8th Edition, Page 245.

89. The Digital ----- year?

Correct Answer: (b) 2015

Explanation:

- The **Digital India initiative** was launched in **2015** to promote digital infrastructure and increase internet connectivity across India.

Reference: Indian Economy by Ramesh Singh, 14th Edition, Page 589.

Model Paper – 3 | Detailed Solutions

90. What ----- Padhao' scheme?

Correct Answer: (d) All of the above

Explanation:

- The '**Beti Bachao Beti Padhao**' scheme focuses on:
 - Promoting girls' education,
 - Preventing female infanticide, and
 - Empowering women to create a gender-balanced society.

Reference: Government of India Initiatives, Ministry of Women and Child Development, 2015.

91. Which ----- India'?

Correct Answer: (c) Dadabhai Naoroji

Explanation:

Dadabhai Naoroji is known as the '**Grand Old Man of India**' for his immense contribution to the Indian freedom struggle.

- He was the first Indian to be elected to the British Parliament.
- He advocated for Indian self-rule and exposed the economic exploitation of India by the British through his **Drain Theory**.
- His efforts laid the foundation for Indian nationalism.

Reference:

Indian Freedom Struggle History (NCERT).

92. The Indian ----- which date?

Correct Answer: (c) 26th January 1950

Explanation:

- The **Indian Constitution** came into effect on **26th January 1950**, marking India's transition to a republic.

🌐 Website - www.pharmacyindia.co.in | Gmail - pharmacyindia24@gmail.com |



Download **PHARMACY INDIA** App from **Google Play store**

Model Paper – 3 | Detailed Solutions

- The date was chosen to commemorate the **Purna Swaraj Declaration of 1930**.

Reference: Modern Indian History by Bipan Chandra, 6th Edition, Page 410.

93. The term ----- aspect?

Correct Answer: (a) Sustainable agriculture

Explanation:

- The '**Evergreen Revolution**', initiated by **M.S. Swaminathan**, focuses on **sustainable agriculture** to increase productivity without harming the environment.

Reference: Indian Economy by Ramesh Singh, 14th Edition, Page 482.

94. Which ----- 'Dakshin Ganga'?

Correct Answer: (b) Godavari

Explanation:

- The **Godavari River** is referred to as '**Dakshin Ganga**' (**Ganga of the South**) because of its length, cultural importance, and resemblance to the Ganga in the north.

Reference: Indian Geography by Majid Husain, 8th Edition, Page 198.

95. Which ----- Afghanistan in 2021?

Correct Answer: (a) Operation Devi Shakti

Explanation:

- **Operation Devi Shakti** was launched by the Government of India in **2021** to evacuate Indian citizens and Afghan nationals during the crisis in Afghanistan.

Reference: Ministry of External Affairs, Government of India Reports, 2021.

96. Who ----- National Congress?

Correct Answer: (b) Annie Besant

 **Website - www.pharmacyindia.co.in | Gmail - pharmacyindia24@gmail.com |**



Download PHARMACY INDIA App from Google Play store

Model Paper – 3 | Detailed Solutions

Explanation:

- **Annie Besant** was the first Indian woman to preside over a session of the **Indian National Congress** in **1917**, advocating for self-rule and social reform.

Reference: Modern Indian History by Bipan Chandra, 6th Edition, Page 296.

97. Which ----- self-reliance?

Correct Answer: (c) Fifth Five-Year Plan

Explanation:

- The **Fifth Five-Year Plan (1974–1979)** focused on poverty removal (Garibi Hatao) and self-reliance, with an emphasis on employment generation and rural development.

Reference: Indian Economy by Ramesh Singh, 14th Edition, Page 245.

98. Which ----- producer of coffee?

Correct Answer: (b) Karnataka

Explanation:

- **Karnataka** is the largest coffee producer in India, accounting for over **70% of the country's production**, with Coorg being a prominent coffee-growing region.

Reference: Indian Geography by Majid Husain, 8th Edition, Page 225.

99. The 'Pradhan ----- associated with:

Correct Answer: (a) Crop insurance

Explanation:

- The '**Pradhan Mantri Fasal Bima Yojana (PMFBY)**', launched in **2016**, provides crop insurance to farmers against natural calamities, pests, and diseases.

Reference: Indian Economy by Ramesh Singh, 14th Edition, Page 567.

 **Website - www.pharmacyindia.co.in | Gmail - pharmacyindia24@gmail.com |**



Download PHARMACY INDIA App from Google Play store

Model Paper – 3 | Detailed Solutions

100. The Jallianwala ----- which year?

Correct Answer: (b) 1919

Explanation:

- The **Jallianwala Bagh Massacre** occurred on **13th April 1919**, when General Dyer ordered troops to fire on a peaceful gathering, killing hundreds.
- It marked a turning point in India's independence struggle.

Reference: Modern Indian History by Bipan Chandra, 6th Edition, Page 270.

PHARMACY
INDIA

 Website - www.pharmacyindia.co.in | Gmail - pharmacyindia24@gmail.com |



Download **PHARMACY INDIA** App from **Google Play store**