NIPER JEE General Aptitude

Sample Paper – 4

M.S.(Pharm) / M.Pharm Joint Entrance Examination

Duration: 24 Minutes **Maximum Marks: 20**

Instructions

- This paper contains **40 single-correct Multiple Choice Questions**, modelled on the **General Aptitude, Reasoning & General Knowledge** section of the **NIPER Joint Entrance Examination**.
- Each correct answer carries **+0.5 marks**. **0.125 mark is deducted** for every wrong answer, and an unattempted question gets **0 marks**. Maximum marks: **20**.
- The section covers English, quantitative aptitude, logical reasoning, and general knowledge (including pharma-sector awareness).
- Only **one** option is correct. Personal calculators, mobile phones, and other electronic gadgets are strictly prohibited.

General Aptitude, Reasoning & General Knowledge

Q1. Choose the word most nearly **similar** in meaning to the word **BENEVOLENT**.

(A) Hostile

(B) Kind

(C) Selfish

(D) Cruel

Q2. Choose the word most nearly **opposite** in meaning to the word **SOLUBLE**.

(A) Dissolvable

(B) Miscible

(C) Insoluble

(D) Liquid

Q3. Choose the **one word** for the expression: "A substance that promotes the discharge of urine".

(A) Laxative

(B) Sedative

(C) Expectorant

(D) Diuretic

Q4. What does the idiom "**once in a blue moon**" mean?

(A) Very rarely

(B) Very often

(C) At night only

(D) All of a sudden

Q5. Identify the part of the sentence that contains an **error**:
"The committee (A)/ have decided (B)/ to postpone (C)/ the meeting. (D)"

(A) Part A

(B) Part B

(C) Part C

(D) Part D

Q6. Choose the option that best **improves** the underlined part:
"If I would have known the side effects, I would have refused the drug."

(A) would have known (no improvement)

(B) would know

(C) had known

(D) have known

Q7. Fill in the blank with the **correct preposition**:
"The patient was advised to abstain _____ alcohol during the course of treatment."

(A) of

(B) to

(C) with

(D) from

Q8. Choose the pair that best completes the analogy:
Thermometer : Temperature :: Hygrometer : ?

(A) Humidity

(B) Pressure

(C) Altitude

(D) Rainfall

Q9. Choose the **correctly spelt** word.

(A) Sterlisation

(B) Sterilisation

(C) Sterilization

(D) Steralisation

Q10. Read the passage and answer:
"Two drug products are said to be bioequivalent if they deliver the same amount of active ingredient into the bloodstream at the same rate. Bioequivalence is the basis on which a generic medicine is approved as a substitute for the branded original."
Which statement is best **inferred**?

(A) Bioequivalent products must have different active ingredients

(B) Bioequivalence compares the colour of two tablets

(C) A bioequivalent generic can be expected to act like the branded drug

(D) Bioequivalence is needed only for injections

Q11. A wholesaler stocks 1200 strips of a medicine. After supplying 35% of them to retailers, how many strips **remain** in stock?

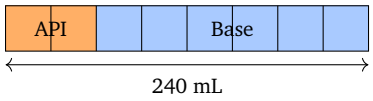
(A) 420

(B) 765

(C) 840

(D) 780

Q12. A syrup is prepared by mixing active ingredient and base in the ratio $2:6$ (see the divided bar of 8 equal parts). If the total volume is 240 mL, what is the volume of the **active ingredient**?



(A) 60 mL

(B) 180 mL

(C) 80 mL

(D) 90 mL

Q13. The average potency of 4 samples is 96%. A fifth sample of potency 86% is added. What is the **new average** potency?

(A) 96%

(B) 94%

(C) 92%

(D) 90%

Q14. A retailer buys a tonic for Rs. 180 and sells it at a **loss** of 10%. What is the **selling price**?

(A) Rs. 198

(B) Rs. 170

(C) Rs. 162

(D) Rs. 150

Q15. Find the **simple interest** on Rs. 15,000 at 8% per annum for 3 years.

(A) Rs. 1200

(B) Rs. 2400

(C) Rs. 4800

(D) Rs. 3600

Q16. A technician can label a batch in 10 hours and a machine can do it in 15 hours. Working **together**, in how many hours will they finish?

(A) 6 hours

(B) 12.5 hours

(C) 5 hours

(D) 25 hours

Q17. An ambulance covers 90 km in 1.5 hours. At the same speed, how far will it travel in **4 hours**?

(A) 180 km

(B) 240 km

(C) 200 km

(D) 360 km

Q18. A mother is four times as old as her daughter. After 5 years, she will be three times as old. What is the **daughter's present age**?

(A) 5 years

(B) 15 years

(C) 10 years

(D) 12 years

Q19. In what **ratio** must a 10% saline solution be mixed with a 40% saline solution to obtain a 20% solution?

(A) $1:2$

(B) $1:1$

(C) $3:2$

(D) $2:1$

Q20. A tray holds 5 green and 3 yellow tablets. If one tablet is drawn at random, what is the **probability** it is yellow?

(A) $\frac{3}{8}$

(B) $\frac{5}{8}$

(C) $\frac{3}{5}$

(D) $\frac{1}{2}$

Q21. In how many ways can 4 different medicines be **arranged** in a row on a shelf?

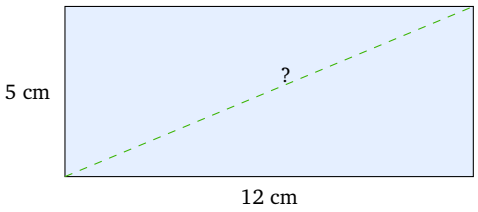
(A) 16

(B) 24

(C) 12

(D) 256

Q22. A rectangular label has length 12 cm and breadth 5 cm (figure). What is the length of its **diagonal**?



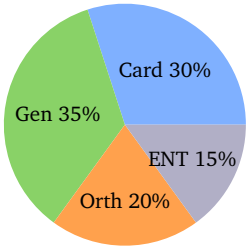
(A) 17 cm

(B) 7 cm

(C) 13 cm

(D) 15 cm

Q23. The pie chart shows how 1000 outpatients at a clinic are distributed by department. How many patients visited the **Cardiology** department?



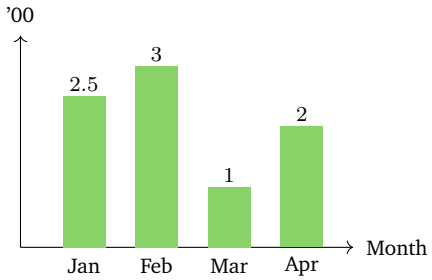
(A) 350

(B) 200

(C) 150

(D) 300

Q24. The bar graph shows the number of prescriptions (in hundreds) filled by a pharmacy over four months. In which month were the prescriptions the **lowest**?



(A) Feb

(B) Mar

(C) Jan

(D) Apr

Q25. Find the **next number** in the series: $2,\ 5,\ 10,\ 17,\ 26,\ ?$

(A) 35

(B) 33

(C) 37

(D) 36

Q26. Find the **next term** in the series: $B,\ E,\ H,\ K,\ ?$

(A) N

(B) M

(C) O

(D) L

Q27. If **CARE** is coded as **ECTG**, then how is **DOSE** coded?

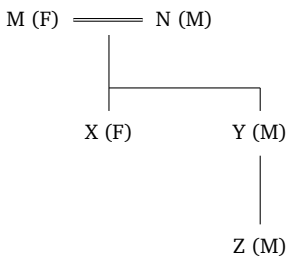
(A) FPUG

(B) EPUG

(C) FQTG

(D) FQUG

Q28. Study the family tree (double line = married couple, vertical line = parent–child). How is **X** related to **Z**?



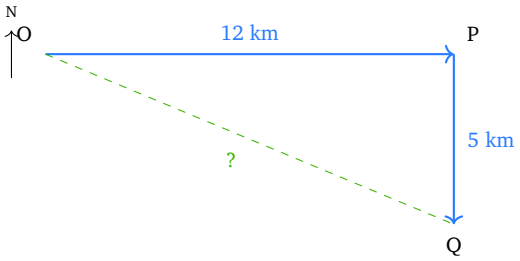
(A) Mother

(B) Aunt

(C) Sister

(D) Grandmother

Q29. A delivery rider starts at O, rides 12 km East to P, then 5 km South to Q (see path). What is the **shortest distance** from O to Q?



(A) 17 km

(B) 7 km

(C) 13 km

(D) 15 km

Q30. Statements: **Some tablets are capsules. All capsules are medicines.** Which conclusion **follows**?

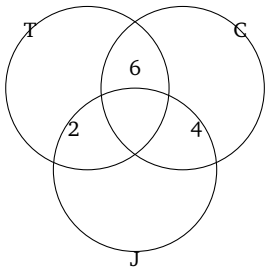
(A) Some tablets are medicines

(B) All tablets are medicines

(C) No tablet is a medicine

(D) All medicines are tablets

Q31. In the Venn diagram, the circles represent people who like Tea (T), Coffee (C) and Juice (J). The number in the central region is the count who like **all three**. What is that number?



(A) 2

(B) 6

(C) 4

(D) 12

Q32. Choose the **odd one out**.

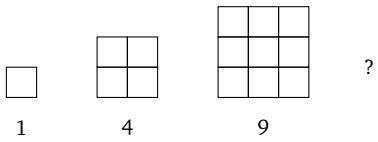
(A) Liver

(B) Kidney

(C) Scalpel

(D) Heart

Q33. In the figure series the number of squares increases by a fixed pattern. How many squares should the **next figure** contain?



(A) 12

(B) 14

(C) 18

(D) 16

Q34. If 15th August 2023 was a **Tuesday**, what day of the week was **15th August 2024**? (2024 is a leap year, so 366 days fall between the two dates.)

(A) Thursday

(B) Wednesday

(C) Tuesday

(D) Friday

Q35. The **Quit India Movement** was launched by the Indian National Congress in which year?

(A) 1930

(B) 1942

(C) 1947

(D) 1919

Q36. Sir **Ronald Ross**, who worked in India, won the Nobel Prize in Physiology or Medicine (1902) for his work on the transmission of which disease?

(A) Tuberculosis

(B) Cholera

(C) Malaria

(D) Plague

Q37. Which Indian-American scientist won the **Nobel Prize in Chemistry (2009)** for studies of the structure and function of the ribosome?

(A) Har Gobind Khorana

(B) C.V. Raman

(C) Subrahmanyan Chandrasekhar

(D) Venkatraman Ramakrishnan

Q38. Which scientist, often called the “Missile Man of India”, was awarded the **Bharat Ratna** in 1997 and later became President of India?

(A) A.P.J. Abdul Kalam

(B) Homi J. Bhabha

(C) Vikram Sarabhai

(D) Satyendra Nath Bose

Q39. Who gave the famous slogan "**Give me blood, and I shall give you freedom**" and founded the Azad Hind Fauj (Indian National Army)?

(A) Bhagat Singh

(B) Subhas Chandra Bose

(C) Lala Lajpat Rai

(D) Bal Gangadhar Tilak

Q40. Indian-American scientist **Har Gobind Khorana** shared the 1968 Nobel Prize in Physiology or Medicine for his work on which topic?

(A) Discovery of insulin

(B) Discovery of penicillin

(C) Interpretation of the genetic code and protein synthesis

(D) Discovery of the structure of DNA

Detailed Solutions

Q1.

Solution

Concept — Synonyms: "Benevolent" means well-meaning and kindly. **Reasoning:** A benevolent person wishes others well and acts generously. "Kind" carries this same caring sense. **Why the other options are wrong:**

- (A) Hostile means unfriendly, the opposite.
- (C) Selfish is the opposite of benevolent.
- (D) Cruel means causing pain, the opposite.

Final Answer: Kind $\Rightarrow$ B

Answer: (B) Go Back to Q1

Q2.

Solution

Concept — Antonyms: "Soluble" means able to be dissolved in a solvent. **Reasoning:** The direct opposite is "insoluble", meaning incapable of being dissolved. **Why the other options are wrong:**

- (A) Dissolvable is a synonym of soluble.
- (B) Miscible means able to mix, close in sense.
- (D) Liquid describes a state of matter, not the opposite of soluble.

Final Answer: Insoluble $\Rightarrow$ C

Answer: (C) Go Back to Q2

Q3.

Solution

Concept — One-word substitution: A substance promoting urine output is a "diuretic". **Reasoning:** Diuretics increase the production and excretion of urine and are used to treat conditions such as hypertension and oedema. **Why the other options are wrong:**

- (A) A laxative promotes bowel movement.
- (B) A sedative calms or induces sleep.

- (C) An expectorant helps expel mucus from the airways.

Final Answer: Diuretic ⇒ D

Answer: (D) Go Back to Q3

Q4.

Solution

Concept — Idioms: "Once in a blue moon" means something that happens very rarely. **Reasoning:** A blue moon is an uncommon event, so the phrase describes an event occurring only on rare occasions. **Why the other options are wrong:**

- (B) "Very often" is the opposite of the idiom's meaning.
- (C) It has nothing to do with the time of day.
- (D) "All of a sudden" refers to suddenness, not rarity.

Final Answer: Very rarely ⇒ A

Answer: (A) Go Back to Q4

Q5.

Solution

Concept — Collective nouns and verb agreement: A collective noun acting as one unit takes a singular verb. **Reasoning:** "The committee" is treated as a single body deciding together, so the correct form is "has decided", not "have decided". The error is in Part B. **Why the other options are wrong:**

- (A) "The committee" is correct as a subject.
- (C) "to postpone" is correct.
- (D) "the meeting" is correct.

Final Answer: Part B ⇒ B

Answer: (B) Go Back to Q5

Q6.

Solution

Concept — Conditional sentences (third conditional): The "if" clause uses the past perfect, not "would have". **Reasoning:** The correct structure is "If I had known..., I would have refused". So "had known" replaces "would have known". **Why the other options are wrong:**

- (A) "would have known" in the if-clause is incorrect.
- (B) "would know" breaks the third-conditional form.
- (D) "have known" is the wrong tense here.

Final Answer: had known $\Rightarrow$ C

Answer: (C) Go Back to Q6

Q7.

Solution

Concept — Prepositions: "Abstain from" is the fixed collocation. **Reasoning:** To abstain from something means to refrain from it, so "abstain from alcohol" is correct. **Why the other options are wrong:**

- (A) "abstain of" is grammatically wrong.
- (B) "abstain to" is incorrect.
- (C) "abstain with" is incorrect.

Final Answer: from $\Rightarrow$ D

Answer: (D) Go Back to Q7

Q8.

Solution

Concept — Analogy (instrument : measured quantity): A thermometer measures temperature. **Reasoning:** The relationship is instrument to the quantity it measures. A hygrometer measures humidity. **Why the other options are wrong:**

- (B) Pressure is measured by a barometer.
- (C) Altitude is measured by an altimeter.
- (D) Rainfall is measured by a rain gauge.

Final Answer: Humidity $\Rightarrow$ A

Answer: (A) Go Back to Q8

Q9.

Solution

Concept — Spelling: The correct British spelling is "Sterilisation". **Reasoning:** It is built on "sterile" $\rightarrow$ "sterili-" plus "-sation": S-t-e-r-i-l-i-s-a-t-i-o-n. Option (B) matches. **Why the other options are wrong:**

- (A) "Sterlisation" drops an "i".
- (C) "Sterilization" is the US "z" spelling, not the British form sought here.
- (D) "Steralisation" uses "a" for "i".

Final Answer: Sterilisation $\Rightarrow$ B

Answer: (B) Go Back to Q9

Q10.

Solution

Concept — Inference from passage: Bioequivalence means the same active ingredient reaches the blood at the same amount and rate. **Reasoning:** Since bioequivalence is the basis for approving a generic as a substitute, a bioequivalent generic can be expected to behave in the body like the branded drug. **Why the other options are wrong:**

- (A) Bioequivalent products contain the same active ingredient.
- (B) The passage concerns blood levels, not colour.
- (D) Bioequivalence applies broadly, not only to injections.

Final Answer: A bioequivalent generic can be expected to act like the branded drug $\Rightarrow$ C

Answer: (C) Go Back to Q10

Q11.

Solution

Concept — Percentage: Remaining % $= 100\% - 35\% = 65\%$. **Reasoning:** 65% of $1200 = \dfrac{65}{100} \times 1200 = 780$ strips remain. **Why the other options are wrong:**

- (A) 420 is the number supplied (35% of 1200).
- (B) 765 is an arithmetic slip.
- (C) 840 uses 70% by mistake.

Final Answer: 780 strips $\Rightarrow$ $\boxed{\text{D}}$

Answer: (D) Go Back to Q11

Q12.

Solution

Concept — Ratio division: Total parts $= 2+6 = 8$. **Reasoning:** Active ingredient $= \dfrac{2}{8} \times 240 = \dfrac{1}{4} \times 240 = 60$ mL. **Why the other options are wrong:**

- (B) 180 mL is the base portion ($\frac{6}{8} \times 240$).
- (C) 80 mL uses the wrong fraction.
- (D) 90 mL is incorrect.

Final Answer: 60 mL $\Rightarrow$ $\boxed{\text{A}}$

Answer: (A) Go Back to Q12

Q13.

Solution

Concept — Average: New average $= \dfrac{\text{new total}}{\text{new count}}$. **Reasoning:** Old total $= 4 \times 96 = 384$. New total $= 384 + 86 = 470$. New average $= \dfrac{470}{5} = 94\%$. **Why the other options are wrong:**

- (A) 96% ignores the fifth sample.
- (C) 92% is incorrect.
- (D) 90% is incorrect.

Final Answer: 94% $\Rightarrow$ $\boxed{\text{B}}$

Answer: (B) Go Back to Q13

Q14.

Solution

Concept — Loss percentage: $\text{SP} = \text{CP} \times \left(1 - \frac{\text{loss\%}}{100}\right)$. **Reasoning:** $\text{SP} = 180 \times (1 - 0.10) = 180 \times 0.90 = 162$. **Why the other options are wrong:**

- (A) Rs. 198 would be a 10% profit.
- (B) Rs. 170 is incorrect.
- (D) Rs. 150 is too low.

Final Answer: Rs. 162 $\Rightarrow$ C

Answer: (C) Go Back to Q14

Q15.

Solution

Concept — Simple interest: $SI = \frac{P \times R \times T}{100}$. **Reasoning:** $SI = \frac{15000 \times 8 \times 3}{100} = \frac{360000}{100} = 3600$. **Why the other options are wrong:**

- (A) Rs. 1200 is one year's interest.
- (B) Rs. 2400 covers only two years.
- (C) Rs. 4800 covers four years.

Final Answer: Rs. 3600 $\Rightarrow$ D

Answer: (D) Go Back to Q15

Q16.

Solution

Concept — Time & work (combined rate): Add the one-hour work rates. **Reasoning:** Technician's rate $= \frac{1}{10}$, machine's rate $= \frac{1}{15}$. Together $= \frac{3}{30} + \frac{2}{30} = \frac{5}{30} = \frac{1}{6}$. So 6 hours. **Why the other options are wrong:**

- (B) 12.5 hours averages the times wrongly.
- (C) 5 hours is too short.

- (D) 25 hours adds the times.

Final Answer: 6 hours $\Rightarrow$ A

Answer: (A) Go Back to Q16

Q17.

Solution

Concept — Speed–distance–time: Distance = speed $\times$ time. **Reasoning:** Speed $= \frac{90}{1.5} = 60$ km/h. Distance in 4 hours $= 60 \times 4 = 240$ km. **Why the other options are wrong:**

- (A) 180 km uses 3 hours.
- (C) 200 km is incorrect.
- (D) 360 km doubles the speed.

Final Answer: 240 km $\Rightarrow$ B

Answer: (B) Go Back to Q17

Q18.

Solution

Concept — Ages (linear equations): Let daughter $= x$, mother $= 4x$. **Reasoning:** After 5 years: $4x + 5 = 3(x + 5)$. So $4x + 5 = 3x + 15 \Rightarrow x = 10$. Daughter is 10 years old. **Why the other options are wrong:**

- (A) 5 years does not satisfy the condition.
- (B) 15 years is too large.
- (D) 12 years does not satisfy the equation.

Final Answer: 10 years $\Rightarrow$ C

Answer: (C) Go Back to Q18

Q19.

Solution

Concept — Alligation: Ratio $= \dfrac{(\text{higher} - \text{mean})}{(\text{mean} - \text{lower})}$. **Reasoning:** Mean $= 20$. Ratio (10% sol : 40% sol) $= (40 - 20) : (20 - 10) = 20 : 10 = 2 : 1$. **Why the other options are wrong:**

- (A) $1 : 2$ is the inverse.
- (B) $1 : 1$ would give a 25% mean.
- (C) $3 : 2$ is incorrect.

Final Answer: $2 : 1 \Rightarrow \boxed{\text{D}}$

Answer: (D) Go Back to Q19

Q20.

Solution

Concept — Probability: $P = \dfrac{\text{favourable}}{\text{total}}$. **Reasoning:** Total $= 5 + 3 = 8$. $P(\text{yellow}) = \dfrac{3}{8}$. **Why the other options are wrong:**

- (B) $\frac{5}{8}$ is the probability of green.
- (C) $\frac{3}{5}$ uses the wrong denominator.
- (D) $\frac{1}{2}$ assumes equal counts.

Final Answer: $\dfrac{3}{8} \Rightarrow \boxed{\text{A}}$

Answer: (A) Go Back to Q20

Q21.

Solution

Concept — Permutations (arrangement): Arranging n distinct items uses $n!$. **Reasoning:** $4! = 4 \times 3 \times 2 \times 1 = 24$ arrangements. **Why the other options are wrong:**

- (A) 16 is 4^2.
- (C) 12 is incorrect.
- (D) 256 is 4^4.

Final Answer: 24 $\Rightarrow$ B

Answer: (B) Go Back to Q21

Q22.

Solution

Concept — Diagonal of a rectangle: Diagonal $= \sqrt{l^2 + b^2}$ (Pythagoras). **Reasoning:** Diagonal $= \sqrt{12^2 + 5^2} = \sqrt{144 + 25} = \sqrt{169} = 13$ cm. **Why the other options are wrong:**

- (A) 17 cm adds the sides $(12 + 5)$.
- (B) 7 cm subtracts the sides.
- (D) 15 cm is incorrect.

Final Answer: 13 cm $\Rightarrow$ C

Answer: (C) Go Back to Q22

Q23.

Solution

Concept — Pie-chart data interpretation: Each sector % of the total gives the count. **Reasoning:** Cardiology $= 30\%$ of $1000 = \frac{30}{100} \times 1000 = 300$ patients. **Why the other options are wrong:**

- (A) 350 is 35% (General).
- (B) 200 is 20% (Orthopaedics).
- (C) 150 is 15% (ENT).

Final Answer: 300 patients $\Rightarrow$ D

Answer: (D) Go Back to Q23

Q24.

Solution

Concept — Bar-graph data interpretation: The shortest bar is the lowest value. **Reasoning:** Heights (in hundreds) are Jan $= 2.5$, Feb $= 3$, Mar $= 1$, Apr $= 2$. March has the shortest bar, so it is the lowest. **Why the other options are wrong:**

- (A) Feb $= 3$ is the highest.
- (C) Jan $= 2.5$ is higher than March.
- (D) Apr $= 2$ is higher than March.

Final Answer: Mar $\Rightarrow$ B

Answer: (B) Go Back to Q24

Q25.

Solution

Concept — Number series (n^2+1): The terms follow squares plus one. **Reasoning:** $1^2{+}1{=}2,\ 2^2{+}1{=}5,\ 3^2{+}1{=}10,\ 4^2{+}1{=}17,\ 5^2{+}1{=}26,\ 6^2{+}1{=}37$. The next term is 37. **Why the other options are wrong:**

- (A) 35 breaks the pattern.
- (B) 33 is incorrect.
- (D) 36 is 6^2 without the $+1$.

Final Answer: 37 $\Rightarrow$ C

Answer: (C) Go Back to Q25

Q26.

Solution

Concept — Letter series: Track the gap in alphabet positions. **Reasoning:** B(2), E(5), H(8), K(11): each term increases by $+3$. $11 + 3 = 14 =$ N. **Why the other options are wrong:**

- (B) M is position 13.
- (C) O is position 15.
- (D) L is position 12.

Final Answer: N $\Rightarrow$ A

Answer: (A) Go Back to Q26

Q27.

Solution

Concept — Coding by shifting letters: Each letter moves $+2$ in the alphabet. **Reasoning:** CARE $\rightarrow$ ECTG (each $+2$). Apply $+2$ to DOSE: D$\rightarrow$F, O$\rightarrow$Q, S$\rightarrow$U, E$\rightarrow$G, giving FQUG. **Why the other options are wrong:**

- (A) FPUG mis-shifts O.
- (B) EPUG mis-shifts D and O.
- (C) FQTG mis-shifts S.

Final Answer: FQUG $\Rightarrow$ $\boxed{\text{D}}$

Answer: (D) Go Back to Q27

Q28.

Solution

Concept — Blood relations: Trace the tree from parents to children to grandchild. **Reasoning:** M and N are a married couple; X and Y are their children. Y is the parent of Z. So X is the sister of Y, making X the *aunt* of Z. **Why the other options are wrong:**

- (A) Y, not X, is Z's parent.
- (C) X is Y's sister, not Z's sister.
- (D) M, not X, is Z's grandmother.

Final Answer: Aunt $\Rightarrow$ $\boxed{\text{B}}$

Answer: (B) Go Back to Q28

Q29.

Solution

Concept — Direction sense (Pythagoras): Net displacement is the hypotenuse of the right triangle. **Reasoning:** East 12 km and South 5 km are perpendicular. Distance $= \sqrt{12^2 + 5^2} = \sqrt{144 + 25} = \sqrt{169} = 13$ km. **Why the other options are wrong:**

- (A) 17 km adds the legs $(12 + 5)$.
- (B) 7 km subtracts the legs.
- (D) 15 km is incorrect.

Final Answer: 13 km $\Rightarrow$ C

Answer: (C) Go Back to Q29

Q30.

Solution

Concept — Syllogism: "Some A are B" with "All B are C" gives "Some A are C". **Reasoning:** Some tablets are capsules, and all capsules are medicines, so those tablets that are capsules must be medicines. Hence "Some tablets are medicines" follows. **Why the other options are wrong:**

- (B) "All tablets are medicines" is not guaranteed.
- (C) Contradicts the given statements.
- (D) "All medicines are tablets" reverses the relation.

Final Answer: Some tablets are medicines $\Rightarrow$ A

Answer: (A) Go Back to Q30

Q31.

Solution

Concept — Venn diagram (central region): The central overlap belongs to all three sets. **Reasoning:** The number where all three circles (T, C, J) overlap is 6, so 6 people like tea, coffee and juice at once. **Why the other options are wrong:**

- (A) 2 lies in the T–J overlap only.
- (C) 4 lies in the C–J overlap only.
- (D) 12 is the sum of all labelled regions.

Final Answer: 6 $\Rightarrow$ B

Answer: (B) Go Back to Q31

Q32.

Solution

Concept — Classification (odd one out): Group items by common category. **Reasoning:** Liver, kidney and heart are internal organs of the body. A scalpel is a surgical instrument, so it is the odd one out. **Why the other options are wrong:**

- (A) Liver is an organ, fits the group.
- (B) Kidney is an organ, fits the group.
- (D) Heart is an organ, fits the group.

Final Answer: Scalpel $\Rightarrow$ C

Answer: (C) Go Back to Q32

Q33.

Solution

Concept — Figure series (perfect squares): The square count follows $1, 4, 9, \ldots = n^2$. **Reasoning:** $1^2{=}1,\ 2^2{=}4,\ 3^2{=}9,\ 4^2{=}16$. The next figure should contain 16 squares. **Why the other options are wrong:**

- (A) 12 breaks the pattern.
- (B) 14 is incorrect.
- (C) 18 overshoots.

Final Answer: 16 squares $\Rightarrow$ D

Answer: (D) Go Back to Q33

Q34.

Solution

Concept — Calendar (odd days): The span from 15 Aug 2023 to 15 Aug 2024 includes 29 Feb 2024, so it is 366 days $= 2$ odd days. **Reasoning:** 366 days $= 52$ weeks $+2$ odd days, so the day advances by 2. Tuesday $+2$ = Thursday. **Why the other options are wrong:**

- (B) Wednesday uses only 1 odd day.
- (C) Tuesday ignores the shift.
- (D) Friday overshoots by one.

Final Answer: Thursday $\Rightarrow$ A

Answer: (A) Go Back to Q34

Q35.

Solution

Concept — Freedom struggle (Quit India): The Quit India Movement demanded an end to British rule. **Reasoning:** Launched on 8 August 1942 at the Bombay session of the Congress, Gandhi gave the call "Do or Die". The year is 1942. **Why the other options are wrong:**

- (A) 1930 was the Civil Disobedience/Dandi March year.
- (C) 1947 was the year of Independence.
- (D) 1919 saw the Jallianwala Bagh massacre and Rowlatt Act.

Final Answer: 1942 $\Rightarrow$ B

Answer: (B) Go Back to Q35

Q36.

Solution

Concept — Nobel Prize in Medicine (1902): Ronald Ross worked in India on mosquito-borne disease. **Reasoning:** Ross demonstrated that the malaria parasite is transmitted by the Anopheles mosquito, earning the 1902 Nobel Prize for his work on malaria. **Why the other options are wrong:**

- (A) Tuberculosis work is linked to Robert Koch.
- (B) Cholera was studied by Robert Koch and John Snow.
- (D) Plague is unrelated to Ross's Nobel work.

Final Answer: Malaria $\Rightarrow$ C

Answer: (C) Go Back to Q36

Q37.

Solution

Concept — Nobel Prize in Chemistry (2009): The prize recognised studies of the ribosome. **Reasoning:** Venkatraman Ramakrishnan, an Indian-born American structural biologist, shared the 2009 Chemistry Nobel for mapping the structure and function of the ribosome. **Why the other options are wrong:**

- (A) Khorana won in Medicine (1968) for the genetic code.
- (B) C.V. Raman won the 1930 Physics Nobel.
- (C) Chandrasekhar won the 1983 Physics Nobel.

Final Answer: Venkatraman Ramakrishnan $\Rightarrow$ $\boxed{D}$

Answer: (D) Go Back to Q37

Q38.

Solution

Concept — Bharat Ratna scientists: The "Missile Man" led India's missile programme. **Reasoning:** A.P.J. Abdul Kalam received the Bharat Ratna in 1997 and served as the 11th President of India (2002–2007). **Why the other options are wrong:**

- (B) Homi Bhabha was the father of India's nuclear programme but was not President.
- (C) Vikram Sarabhai pioneered the space programme but was not President.
- (D) Satyendra Nath Bose is known for Bose–Einstein statistics, not the presidency.

Final Answer: A.P.J. Abdul Kalam $\Rightarrow$ $\boxed{A}$

Answer: (A) Go Back to Q38

Q39.

Solution

Concept — Freedom struggle leaders: The INA fought for India's freedom from abroad. **Reasoning:** Subhas Chandra Bose (Netaji) gave the slogan "Give me blood, and I shall give you freedom" and reorganised the Azad Hind Fauj (Indian National Army). **Why the other options are wrong:**

- (A) Bhagat Singh was a revolutionary martyr, not the INA founder.
- (C) Lala Lajpat Rai led the Punjab against the Simon Commission.
- (D) Tilak gave “Swaraj is my birthright”.

Final Answer: Subhas Chandra Bose $\Rightarrow$ B

Answer: (B) Go Back to Q39

Q40.

Solution

Concept — Nobel Prize in Medicine (1968): The prize honoured work on how genes direct protein synthesis. **Reasoning:** Har Gobind Khorana shared the 1968 Medicine Nobel for interpreting the genetic code and its function in protein synthesis. **Why the other options are wrong:**

- (A) Insulin’s discovery is credited to Banting and Macleod.
- (B) Penicillin was discovered by Alexander Fleming.
- (D) The DNA double-helix structure was credited to Watson, Crick and Wilkins.

Final Answer: Interpretation of the genetic code and protein synthesis $\Rightarrow$ C

Answer: (C) Go Back to Q40

Answer Key

Q	Ans	Q	Ans	Q	Ans	Q	Ans	Q	Ans
1	B	2	C	3	D	4	A	5	B
6	C	7	D	8	A	9	B	10	C
11	D	12	A	13	B	14	C	15	D
16	A	17	B	18	C	19	D	20	A
21	B	22	C	23	D	24	B	25	C
26	A	27	D	28	B	29	C	30	A
31	B	32	C	33	D	34	A	35	B
36	C	37	D	38	A	39	B	40	C