NIPER JEE General Aptitude

Sample Paper – 9

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 **FRUGAL**.

(A) Wasteful

(B) Lavish

(C) Thrifty

(D) Generous

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

(A) Refined

(B) Raw

(C) Rough

(D) Coarse

Q3. Choose the **one word** for the expression: "A medicine that neutralises excess acid in the stomach".

(A) Analgesic

(B) Diuretic

(C) Sedative

(D) Antacid

Q4. What does the idiom "**the last straw**" mean?

(A) The first sign of trouble

(B) The final difficulty that makes a situation unbearable

(C) A small and harmless mistake

(D) A lucky escape from danger

Q5. Identify the part of the sentence that contains an **error**:
"Each of the samples (A)/ were tested (B)/ for purity (C)/ before release. (D)"

(A) Part A

(B) Part C

(C) Part B

(D) Part D

Q6. Choose the option that best **improves** the underlined part:
"If I would have known the dosage, I would have advised the patient."

(A) had known

(B) would have known (no improvement)

(C) have known

(D) was knowing

Q7. Fill in the blank with the **correct preposition**:
"The tablet should be stored away _____ direct sunlight."

(A) in

(B) from

(C) on

(D) to

Q8. Choose the option that best completes the analogy:
Thermometer : Temperature :: Lactometer : ?

(A) Wind

(B) Humidity

(C) Altitude

(D) Purity of milk

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

(A) Equilibrum

(B) Equillibrium

(C) Equilibrium

(D) Equilibirum

Q10. Read the passage and answer:
"An adverse drug reaction is any harmful and unintended response that occurs at doses normally used in humans. Reporting such reactions helps regulators identify safety problems with a medicine after it is marketed."
Which statement is best **inferred**?

(A) Reporting adverse reactions supports ongoing drug safety monitoring

(B) Adverse reactions occur only at very high overdoses

(C) An adverse drug reaction is always intended

(D) Adverse reactions stop being relevant once a drug is marketed

Q11. A solution contains 40% active ingredient by mass. How many grams of active ingredient are present in **350 g** of the solution?

(A) 210 g

(B) 70 g

(C) 175 g

(D) 140 g

Q12. A buffer is prepared by mixing acid and salt in the ratio $2 : 3$ (see the divided bar of 5 equal parts). If the total volume is 500 mL, what is the volume of **salt**?

(A) 200 mL

(B) 300 mL

(C) 250 mL

(D) 150 mL

Q13. The average of six readings is 48. If one reading of value 30 is removed, what is the **average of the remaining** five readings?

(A) 51.6

(B) 48

(C) 45

(D) 50

Q14. A wholesaler sells a carton for Rs. 540 at a **loss of 10%**. What was the **cost price**?

(A) Rs. 594

(B) Rs. 486

(C) Rs. 600

(D) Rs. 648

Q15. Find the **simple interest** on Rs. 8000 at 7.5% per annum for 2 years.

(A) Rs. 600

(B) Rs. 800

(C) Rs. 1000

(D) Rs. 1200

Q16. Three machines fill bottles in 10, 15 and 30 minutes respectively when working alone. Working **together**, how long do they take to do one filling cycle?

(A) 6 minutes

(B) 5 minutes

(C) 7.5 minutes

(D) 10 minutes

Q17. A train covers 240 km at a uniform speed. If the speed were increased by 20 km/h, it would take 1 hour less. What is the **original speed**?

(A) 60 km/h

(B) 80 km/h

(C) 48 km/h

(D) 40 km/h

Q18. The ratio of the present ages of A and B is $5 : 7$. After 6 years the ratio becomes $3 : 4$. What is **B's present age**?

(A) 30 years

(B) 35 years

(C) 42 years

(D) 49 years

Q19. In what **ratio** must rice at Rs. 30/kg be mixed with rice at Rs. 45/kg to get a mixture costing Rs. 40/kg?

(A) $2 : 1$

(B) $3 : 2$

(C) $1 : 1$

(D) $1 : 2$

Q20. Two fair coins are tossed together. What is the **probability** of getting **exactly one head**?

(A) $\frac{1}{4}$

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

(C) $\frac{3}{4}$

(D) $\frac{1}{3}$

Q21. In how many ways can the letters of the word **DRUG** be arranged so that all four letters are used (no repetition)?

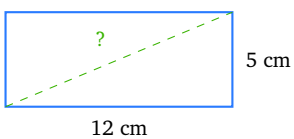
(A) 24

(B) 12

(C) 16

(D) 4

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



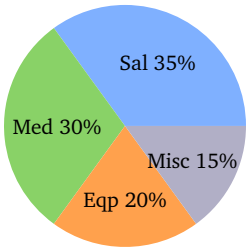
(A) 17 cm

(B) 7 cm

(C) 13 cm

(D) 15 cm

Q23. The pie chart shows how a hospital allocates its annual budget (total Rs. 600 crore). How much (in Rs. crore) is spent on **Medicines**?



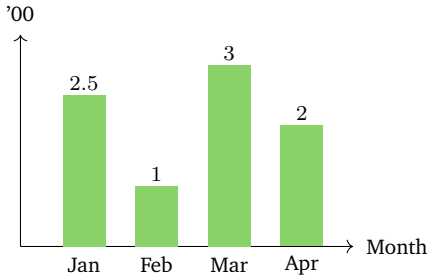
(A) 210

(B) 120

(C) 90

(D) 180

Q24. The bar graph shows the number of patients (in hundreds) admitted over four months. In which month were admissions the **lowest**?



(A) Jan

(B) Feb

(C) Mar

(D) Apr

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

(A) 37

(B) 35

(C) 36

(D) 40

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

(A) N

(B) O

(C) P

(D) Q

Q27. If **CARE** is coded as **ECTG**, then how is **DOSE** coded using the same rule?

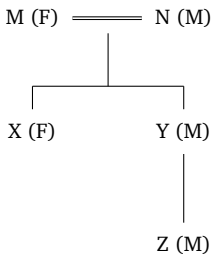
(A) FPUG

(B) EQUG

(C) FQTG

(D) FQUG

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



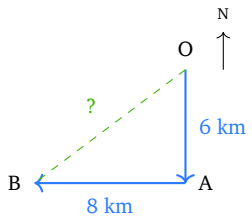
(A) Mother

(B) Aunt

(C) Sister

(D) Grandmother

Q29. A courier starts at O, walks 6 km South to A, then 8 km West to B (see path). What is the **shortest distance** from O to B?



(A) 14 km

(B) 12 km

(C) 10 km

(D) 11 km

Q30. Statements: **Some vaccines are proteins. All proteins are molecules.** Which conclusion **necessarily follows**?

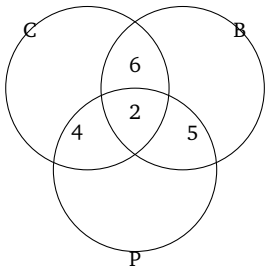
(A) Some vaccines are molecules

(B) All vaccines are molecules

(C) No vaccine is a molecule

(D) All molecules are vaccines

Q31. In the Venn diagram, the circles represent students who study Chemistry (C), Biology (B) and Physics (P). Using the numbers shown, how many students study **exactly two** subjects?



(A) 6

(B) 2

(C) 17

(D) 15

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

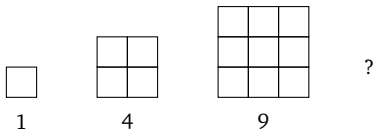
(A) Liver

(B) Insulin

(C) Kidney

(D) Heart

Q33. In the figure series the number of small squares grows in a fixed pattern $(1, 4, 9, \ldots)$. How many small squares should the **next figure** contain?



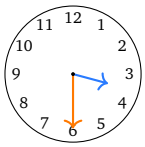
(A) 12

(B) 18

(C) 25

(D) 16

Q34. What is the **angle** between the hour and minute hands of a clock at exactly **3:30**?



(A) $75°$

(B) $90°$

(C) $80°$

(D) $60°$

Q35. On which date is **World Environment Day** observed worldwide every year?

(A) 22 April

(B) 16 September

(C) 5 June

(D) 22 March

Q36. The **Paris Agreement** of 2015 primarily aims to limit global average temperature rise to well below how many degrees Celsius above pre-industrial levels?

(A) $2\,^{\circ}\text{C}$

(B) $5\,^{\circ}\text{C}$

(C) $8\,^{\circ}\text{C}$

(D) $10\,^{\circ}\text{C}$

Q37. Which atmospheric gas is chiefly responsible for the **depletion of the ozone layer** in the stratosphere?

(A) Carbon dioxide

(B) Chlorofluorocarbons (CFCs)

(C) Nitrogen

(D) Oxygen

Q38. In India, **Project Tiger** was launched to conserve the tiger population. The tiger is the **national animal** of India. Which body administers tiger reserves at the national level?

(A) FSSAI

(B) NPPA

(C) CDSCO

(D) National Tiger Conservation Authority (NTCA)

Q39. During **photosynthesis**, green plants take in carbon dioxide and release which gas as a by-product?

(A) Carbon dioxide

(B) Nitrogen

(C) Oxygen

(D) Methane

Q40. Which of the following is a major **greenhouse gas** emitted largely from paddy fields, livestock and landfills?

(A) Oxygen

(B) Methane

(C) Argon

(D) Helium

Detailed Solutions

Q1.

Solution

Concept — Synonyms: "Frugal" means careful with money or resources; economical. **Reasoning:** A frugal person avoids waste and spends sparingly. "Thrifty" carries the same sense. **Why the other options are wrong:**

- (A) Wasteful is the opposite of frugal.
- (B) Lavish means extravagant, the opposite.
- (D) Generous means free in giving, not the same as frugal.

Final Answer: Thrifty $\Rightarrow$ C

Answer: (C) Go Back to Q1

Q2.

Solution

Concept — Antonyms: "Crude" means in a raw or unprocessed state. **Reasoning:** The direct opposite of crude is "refined", meaning purified or processed. **Why the other options are wrong:**

- (B) Raw is a synonym of crude.
- (C) Rough is close in sense to crude.
- (D) Coarse is similar, not opposite.

Final Answer: Refined $\Rightarrow$ A

Answer: (A) Go Back to Q2

Q3.

Solution

Concept — One-word substitution: A medicine that neutralises excess stomach acid is an "antacid". **Reasoning:** Antacids contain basic salts that neutralise gastric acid, relieving heartburn and acidity. **Why the other options are wrong:**

- (A) Analgesic relieves pain.
- (B) Diuretic increases urine output.
- (C) Sedative calms or induces sleep.

Final Answer: Antacid $\Rightarrow$ $\boxed{D}$

Answer: (D) Go Back to Q3

Q4.

Solution

Concept — Idioms: "The last straw" is the final small problem that makes a situation no longer bearable. **Reasoning:** It comes from "the straw that breaks the camel's back", the final addition that tips things over the edge. **Why the other options are wrong:**

- (A) It is the final, not the first, difficulty.
- (C) It is not a harmless mistake; it has a large effect.
- (D) A lucky escape is unrelated.

Final Answer: The final difficulty that makes a situation unbearable $\Rightarrow$ $\boxed{B}$

Answer: (B) Go Back to Q4

Q5.

Solution

Concept — Subject–verb agreement ("each of"): "Each of" takes a *singular* verb. **Reasoning:** "Each of the samples" is singular, so the verb must be "was tested", not "were tested". The error is in Part B. **Why the other options are wrong:**

- (A) "Each of the samples" is correct usage.
- (B-text C) "for purity" is correct.
- (D) "before release" is correct.

Final Answer: Part B $\Rightarrow$ $\boxed{C}$

Answer: (C) Go Back to Q5

Q6.

Solution

Concept — Conditional sentences (third conditional): The "if" clause uses the past perfect, not "would have". **Reasoning:** The correct third-conditional form is "If I *had known* the dosage, I would have advised...". "Would have" belongs only in the main clause. **Why the other options are wrong:**

- (B) "would have known" in the if-clause is the classic error.
- (C) "have known" is present perfect, wrong tense.
- (D) "was knowing" is not standard English.

Final Answer: had known $\Rightarrow$ A

Answer: (A) Go Back to Q6

Q7.

Solution

Concept — Prepositions: The fixed phrase is "away from". **Reasoning:** We store something "away from" a source of harm such as sunlight. "From" is the correct preposition. **Why the other options are wrong:**

- (A) "away in" is not idiomatic.
- (C) "away on" is incorrect.
- (D) "away to" is incorrect here.

Final Answer: from $\Rightarrow$ B

Answer: (B) Go Back to Q7

Q8.

Solution

Concept — Analogy (instrument : quantity measured): A thermometer measures temperature. **Reasoning:** The relation is instrument to the quantity it measures. A lactometer measures the purity (relative density) of milk. **Why the other options are wrong:**

- (A) Wind speed is measured by an anemometer.
- (B) Humidity is measured by a hygrometer.
- (C) Altitude is measured by an altimeter.

Final Answer: Purity of milk $\Rightarrow$ D

Answer: (D) Go Back to Q8

Q9.

Solution

Concept — Spelling: The correct spelling is "Equilibrium". **Reasoning:** It is spelt E-q-u-i-l-i-b-r-i-u-m, with one "l" and "-brium". Only option (C) matches. **Why the other options are wrong:**

- (A) "Equilibrum" drops an "i".
- (B) "Equillibrium" doubles the "l".
- (D) "Equilibirum" transposes letters in "brium".

Final Answer: Equilibrium $\Rightarrow$ C

Answer: (C) Go Back to Q9

Q10.

Solution

Concept — Inference from passage: Reporting adverse drug reactions helps regulators spot safety problems after marketing. **Reasoning:** Since reporting helps identify safety issues once a drug is on the market, it supports ongoing drug safety monitoring (pharmacovigilance). **Why the other options are wrong:**

- (B) The reactions occur at normally used doses, not only at overdoses.
- (C) An adverse reaction is unintended, by definition.
- (D) Monitoring continues after marketing; it does not stop.

Final Answer: Reporting adverse reactions supports ongoing drug safety monitoring $\Rightarrow$ A

Answer: (A) Go Back to Q10

Q11.

Solution

Concept — Percentage: Amount = percentage × whole. **Reasoning:** Active ingredient = 40% of 350 = $\frac{40}{100} \times 350 = 140$ g. **Why the other options are wrong:**

- (A) 210 g is 60% (the non-active part).
- (B) 70 g is 20% of 350.
- (C) 175 g is 50% of 350.

Final Answer: 140 g ⇒ D

Answer: (D) Go Back to Q11

Q12.

Solution

Concept — Ratio division: Total parts = $2+3=5$. **Reasoning:** Salt = $\frac{3}{5} \times 500 = 300$ mL. **Why the other options are wrong:**

- (A) 200 mL is the acid portion ($\frac{2}{5} \times 500$).
- (C) 250 mL is half, wrong ratio.
- (D) 150 mL uses the wrong fraction.

Final Answer: 300 mL ⇒ B

Answer: (B) Go Back to Q12

Q13.

Solution

Concept — Average after removing a value: New average = $\frac{\text{new total}}{\text{new count}}$. **Reasoning:** Total of six = $6 \times 48 = 288$. After removing 30, total = 258 over 5 readings, so average = $\frac{258}{5} = 51.6$. **Why the other options are wrong:**

- (B) 48 ignores the removal.
- (C) 45 is too low.
- (D) 50 is an estimate, not exact.

Final Answer: 51.6 ⇒ A

Answer: (A) Go Back to Q13

Q14.

Solution

Concept — Loss percentage: SP $=$ CP $\times(1-\text{loss}\%)$. **Reasoning:** $540 = \text{CP} \times 0.90$, so CP $= \dfrac{540}{0.90} = 600$. The cost price is Rs. 600. **Why the other options are wrong:**

- (A) Rs. 594 wrongly adds 10% to SP.
- (B) Rs. 486 subtracts 10% of SP.
- (D) Rs. 648 is incorrect.

Final Answer: Rs. 600 $\Rightarrow$ C

Answer: (C) Go Back to Q14

Q15.

Solution

Concept — Simple interest: $SI = \dfrac{P\,r\,t}{100}$. **Reasoning:** $SI = \dfrac{8000 \times 7.5 \times 2}{100} = \dfrac{120000}{100} = 1200$. So Rs. 1200. **Why the other options are wrong:**

- (A) Rs. 600 is one year at half rate.
- (B) Rs. 800 is incorrect.
- (C) Rs. 1000 is incorrect.

Final Answer: Rs. 1200 $\Rightarrow$ D

Answer: (D) Go Back to Q15

Q16.

Solution

Concept — Combined rate of work: Add the per-minute rates. **Reasoning:** Rates $= \frac{1}{10} + \frac{1}{15} + \frac{1}{30} = \frac{3+2+1}{30} = \frac{6}{30} = \frac{1}{5}$ per minute, so 5 minutes together. **Why the other options are wrong:**

- (A) 6 minutes is incorrect.
- (C) 7.5 minutes ignores the third machine.
- (D) 10 minutes is one machine's solo time.

Final Answer: 5 minutes $\Rightarrow$ B

Answer: (B) Go Back to Q16

Q17.

Solution

Concept — Speed–time relation: Time $= \dfrac{\text{distance}}{\text{speed}}$; set up the difference of 1 hour. **Reasoning:** $\dfrac{240}{x} - \dfrac{240}{x+20} = 1$. This gives $x^2 + 20x - 4800 = 0 \Rightarrow (x-60)(x+80) = 0$, so $x = 60$ km/h. **Why the other options are wrong:**

- (B) 80 km/h is the increased speed approximation, not original.
- (C) 48 km/h does not satisfy the equation.
- (D) 40 km/h does not give a 1-hour difference.

Final Answer: 60 km/h $\Rightarrow$ A

Answer: (A) Go Back to Q17

Q18.

Solution

Concept — Ratio of ages: Let ages be $5k$ and $7k$. **Reasoning:** $\dfrac{5k+6}{7k+6} = \dfrac{3}{4}$. Cross-multiplying: $20k + 24 = 21k + 18 \Rightarrow k = 6$. So B $= 7k = 42$ years. **Why the other options are wrong:**

- (A) 30 years is A's present age $(5k)$.
- (B) 35 years uses $k = 5$.
- (D) 49 years uses $k = 7$.

Final Answer: 42 years $\Rightarrow$ C

Answer: (C) Go Back to Q18

Q19.

Solution

Concept — Alligation: Ratio $=$ (dearer $-$ mean) : (mean $-$ cheaper). **Reasoning:** Mean $= 40$. Ratio (Rs. 30 : Rs. 45) $= (45-40) : (40-30) = 5 : 10 = 1 : 2$. **Why the other options are wrong:**

- (A) $2 : 1$ is the inverse.
- (B) $3 : 2$ is incorrect.
- (C) $1 : 1$ gives a mean of Rs. 37.5.

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

Answer: (D) Go Back to Q19

Q20.

Solution

Concept — Probability (two coins): Sample space $= \{HH, HT, TH, TT\}$. **Reasoning:** Exactly one head occurs in HT and TH, i.e. 2 of 4 outcomes, so $P = \frac{2}{4} = \frac{1}{2}$. **Why the other options are wrong:**

- (A) $\frac{1}{4}$ is the probability of two heads.
- (C) $\frac{3}{4}$ is for at least one head.
- (D) $\frac{1}{3}$ uses a wrong sample space.

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

Answer: (B) Go Back to Q20

Q21.

Solution

Concept — Permutations of distinct letters: Arrange n distinct items in $n!$ ways. **Reasoning:** DRUG has 4 distinct letters, so arrangements $= 4! = 4 \times 3 \times 2 \times 1 = 24$. **Why the other options are wrong:**

- (B) 12 is $4!/2$, used when a letter repeats.
- (C) 16 is 4^2, not relevant.
- (D) 4 counts only the letters.

Final Answer: $24 \Rightarrow \boxed{\text{A}}$

Answer: (A) Go Back to Q21

Q22.

Solution

Concept — Diagonal of a rectangle: $d = \sqrt{l^2 + b^2}$. **Reasoning:** $d = \sqrt{12^2 + 5^2} = \sqrt{144 + 25} = \sqrt{169} = 13$ 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 interpretation: Sector % of total gives the amount. **Reasoning:** Medicines $= 30\%$ of Rs. 600 crore $= \frac{30}{100} \times 600 = 180$ crore. **Why the other options are wrong:**

- (A) 210 is 35% (Salaries).
- (B) 120 is 20% (Equipment).
- (C) 90 is 15% (Misc).

Final Answer: Rs. 180 crore $\Rightarrow$ D

Answer: (D) Go Back to Q23

Q24.

Solution

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

- (A) Jan $= 2.5$ is higher.
- (C) Mar $= 3$ is the highest.

- (D) Apr $= 2$ is higher than Feb.

Final Answer: Feb $\Rightarrow$ B

Answer: (B) Go Back to Q24

Q25.

Solution

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

- (B) 35 breaks the pattern.
- (C) 36 is just 6^2 without the $+1$.
- (D) 40 is incorrect.

Final Answer: 37 $\Rightarrow$ A

Answer: (A) Go Back to Q25

Q26.

Solution

Concept — Letter series: Track gaps in alphabet positions. **Reasoning:** B(2), D(4), G(7), K(11): gaps are $+2, +3, +4$, so next gap $= +5$. $11+5=16=$ P. **Why the other options are wrong:**

- (A) N is position 14.
- (B) O is position 15.
- (D) Q is position 17.

Final Answer: P $\Rightarrow$ C

Answer: (C) 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) EQUG mis-shifts D.
- (C) FQTG mis-shifts S.

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

Answer: (D) Go Back to Q27

Q28.

Solution

Concept — Blood relations: Trace 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 Y's sister, which makes X the *aunt* of Z. **Why the other options are wrong:**

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

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

Answer: (B) Go Back to Q28

Q29.

Solution

Concept — Direction sense (Pythagoras): The displacement is the hypotenuse of the right triangle. **Reasoning:** South 6 km and West 8 km are perpendicular. Distance $= \sqrt{6^2 + 8^2} = \sqrt{36 + 64} = \sqrt{100} = 10$ km. **Why the other options are wrong:**

- (A) 14 km adds the legs $(6 + 8)$.
- (B) 12 km is incorrect.
- (D) 11 km is incorrect.

Final Answer: 10 km $\Rightarrow$ C

Answer: (C) Go Back to Q29

Q30.

Solution

Concept — Syllogism (particular + universal): "Some A are B" with "All B are C" gives "Some A are C". **Reasoning:** Some vaccines are proteins, and all proteins are molecules, so those vaccines that are proteins must also be molecules. Hence "some vaccines are molecules" follows. **Why the other options are wrong:**

- (B) "All vaccines are molecules" is not guaranteed (only some are proteins).
- (C) Contradicts the premises.
- (D) Reverses the relation.

Final Answer: Some vaccines are molecules $\Rightarrow$ A

Answer: (A) Go Back to Q30

Q31.

Solution

Concept — Venn diagram (exactly two): Sum the three pairwise-only overlap regions. **Reasoning:** The pairwise overlaps shown are C–B $= 6$, C–P $= 4$ and B–P $= 5$; the central all-three region is 2. "Exactly two" counts only the pairwise regions: $6 + 4 + 5 = 15$. **Why the other options are wrong:**

- (A) 6 is just one pair (C–B).
- (B) 2 is the all-three region.
- (C) 17 wrongly adds the central 2.

Final Answer: 15 $\Rightarrow$ D

Answer: (D) Go Back to Q31

Q32.

Solution

Concept — Classification (odd one out): Group items by common category. **Reasoning:** Liver, kidney and heart are all body *organs*. Insulin is a *hormone*, not an organ, so it is the odd one out. **Why the other options are wrong:**

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

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

Answer: (B) Go Back to Q32

Q33.

Solution

Concept — Figure series (perfect squares): Squares per figure are $1, 4, 9, \ldots = n^2$. **Reasoning:** $1^2 = 1,\ 2^2 = 4,\ 3^2 = 9$, so the next figure is $4^2 = 16$ small squares.

Why the other options are wrong:

- (A) 12 breaks the square pattern.
- (B) 18 is incorrect.
- (C) 25 is 5^2, one step too far.

Final Answer: 16 $\Rightarrow$ $\boxed{\text{D}}$

Answer: (D) Go Back to Q33

Q34.

Solution

Concept — Clock angle: Angle $= |30H - 5.5M|$ degrees. **Reasoning:** At 3:30, $H = 3$, $M = 30$. Angle $= |30(3) - 5.5(30)| = |90 - 165| = 75^\circ$. **Why the other options are wrong:**

- (B) 90° ignores that the hour hand has moved to mid-position.
- (C) 80° is incorrect.
- (D) 60° is incorrect.

Final Answer: 75° $\Rightarrow$ $\boxed{\text{A}}$

Answer: (A) Go Back to Q34

Q35.

Solution

Concept — Environmental observances: World Environment Day raises awareness on environmental protection. **Reasoning:** It is observed on 5 June every year, led by the United Nations Environment Programme since 1974. **Why the other options are wrong:**

- (A) 22 April is Earth Day.
- (B) 16 September is World Ozone Day.
- (D) 22 March is World Water Day.

Final Answer: 5 June $\Rightarrow$ C

Answer: (C) Go Back to Q35

Q36.

Solution

Concept — Climate accords: The Paris Agreement is a 2015 UNFCCC treaty on climate change. **Reasoning:** It aims to hold the rise in global average temperature to well below $2\,^{\circ}$C above pre-industrial levels, and to pursue efforts to limit it to $1.5\,^{\circ}$C. **Why the other options are wrong:**

- (B) $5\,^{\circ}$C far exceeds the treaty target.
- (C) $8\,^{\circ}$C is not a target.
- (D) $10\,^{\circ}$C is not a target.

Final Answer: $2\,^{\circ}$C $\Rightarrow$ A

Answer: (A) Go Back to Q36

Q37.

Solution

Concept — Ozone-layer depletion: Certain man-made gases break down stratospheric ozone. **Reasoning:** Chlorofluorocarbons (CFCs) release chlorine atoms in the stratosphere that catalytically destroy ozone, which is why they were phased out under the Montreal Protocol. **Why the other options are wrong:**

- (A) Carbon dioxide is a greenhouse gas, not the main ozone destroyer.
- (C) Nitrogen is inert and harmless to ozone.
- (D) Oxygen actually forms ozone, not depletes it.

Final Answer: Chlorofluorocarbons (CFCs) $\Rightarrow$ B

Answer: (B) Go Back to Q37

Q38.

Solution

Concept — Biodiversity conservation: India runs dedicated programmes to protect flagship species. **Reasoning:** The National Tiger Conservation Authority (NTCA), a statutory body under the Ministry of Environment, oversees Project Tiger and the country's tiger reserves. **Why the other options are wrong:**

- (A) FSSAI regulates food safety.
- (B) NPPA controls drug prices.
- (C) CDSCO regulates drugs.

Final Answer: National Tiger Conservation Authority (NTCA) $\Rightarrow$ D

Answer: (D) Go Back to Q38

Q39.

Solution

Concept — Photosynthesis: Plants convert CO_2 and water into glucose using sunlight. **Reasoning:** The overall reaction releases oxygen as a by-product: $6\,CO_2 + 6\,H_2O \rightarrow C_6H_{12}O_6 + 6\,O_2$. **Why the other options are wrong:**

- (A) Carbon dioxide is absorbed, not released.
- (B) Nitrogen is not a product of photosynthesis.
- (D) Methane is unrelated to photosynthesis.

Final Answer: Oxygen $\Rightarrow$ C

Answer: (C) Go Back to Q39

Q40.

Solution

Concept — Greenhouse gases: Some gases trap heat and contribute to global warming. **Reasoning:** Methane (CH_4) is a potent greenhouse gas emitted from paddy fields, livestock digestion and decomposing waste in landfills. **Why the other options are wrong:**

- (A) Oxygen is not a greenhouse gas.
- (C) Argon is an inert gas, not a greenhouse gas.
- (D) Helium is inert and not a greenhouse gas.

Final Answer: Methane $\Rightarrow$ B

Answer: (B) Go Back to Q40

Answer Key

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