IBSAT Data Adequacy & Data Interpretation

Sample Paper – 9

Duration: 26 Minutes **Maximum Marks: 30**

Instructions

- This paper contains **30** Multiple Choice Questions (Single Correct Answer), modelled on the Data Adequacy and Data Interpretation section of **IBSAT** (ICFAI Business School Aptitude Test).
- Each correct answer carries **+1 mark**. There is **no negative marking** for incorrect or unattempted answers, so attempt every question.
- Only **one** option is correct. Choose the most appropriate answer.
- IBSAT is a computer-based test with no sectional time limit; attempt this practice paper in one timed sitting of about **26 minutes**.
- Use of mobile phones, calculators, log tables, or electronic gadgets is strictly prohibited.

Part A: Table Interpretation

Directions (Q1–Q5): The table below shows the number of patients treated (in hundreds) in four departments across the five hospitals of the Medicare group in one month. Study it and answer the questions.

Hospital	Cardiology	Orthopedics	Pediatrics	Neurology	Total
Riverside	60	40	50	30	180
Hillcrest	55	45	40	50	190
Lakeview	70	30	45	35	180
Greenwood	45	55	60	40	200
Summit	50	35	55	30	170

Q1. What is the total number of patients treated at Greenwood across all four departments (in hundreds)?

(A) 200

(B) 190

(C) 210

(D) 180

Q2. Which hospital treated the highest total number of patients?

(A) Summit

(B) Hillcrest

(C) Greenwood

(D) Riverside

Q3. What is the total number of Pediatrics patients treated across all five hospitals (in hundreds)?

(A) 280

(B) 250

(C) 205

(D) 185

Q4. What is the ratio of Cardiology patients at Lakeview to Neurology patients at Hillcrest?

(A) 5 : 7

(B) 7 : 6

(C) 5 : 4

(D) 7 : 5

Q5. What is the average number of Neurology patients per hospital (in hundreds)?

(A) 40

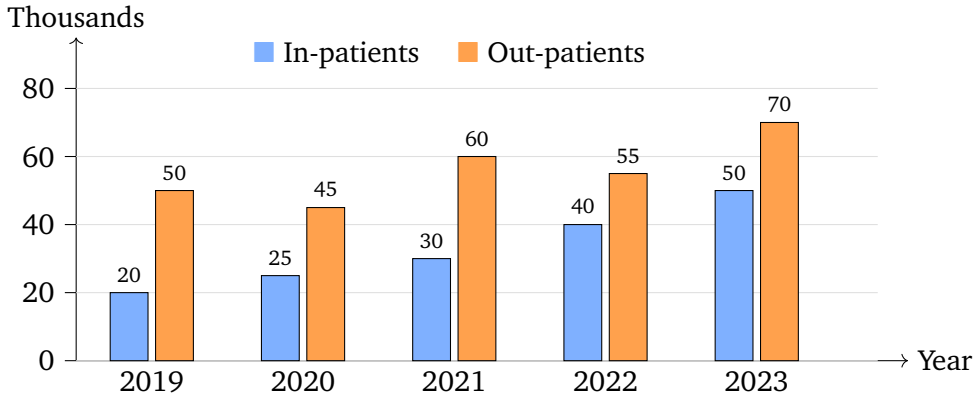
(B) 35

(C) 37

(D) 41

Part B: Bar Graph Interpretation

Directions (Q6–Q10): The bar graph shows the number of In-patients and Out-patients (in thousands) at City General Hospital over five years. Study it and answer the questions.



Q6. What was the total number of patients (In-patients + Out-patients) at City General Hospital in 2022 (in thousands)?

(A) 85

(B) 90

(C) 100

(D) 95

Q7. In which year was the number of Out-patients the highest?

(A) 2023

(B) 2022

(C) 2021

(D) 2020

Q8. What is the percentage increase in the number of In-patients from 2019 to 2023?

(A) 100%

(B) 150%

(C) 200%

(D) 250%

Q9. What is the total number of In-patients over the five years (in thousands)?

(A) 165

(B) 160

(C) 175

(D) 150

Q10. What is the ratio of In-patients to Out-patients in the year 2021?

(A) 2 : 1

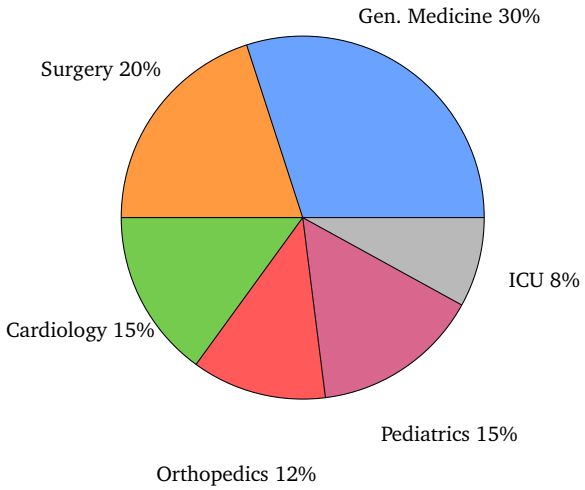
(B) 1 : 3

(C) 1 : 2

(D) 2 : 3

Part C: Pie Chart Interpretation

Directions (Q11–Q14): The pie chart shows the percentage distribution of the total **800** beds of Wellspring Hospital across its six departments. Study it and answer the questions.



Q11. How many beds does Wellspring Hospital allot to the Surgery department?

(A) 140

(B) 150

(C) 160

(D) 200

Q12. Which department has the second highest share of the total beds?

(A) Surgery

(B) Cardiology

(C) Pediatrics

(D) General Medicine

Q13. By how many beds does the General Medicine allotment exceed the Cardiology allotment?

(A) 100

(B) 120

(C) 150

(D) 90

Q14. What is the central angle of the ICU slice in the pie chart?

(A) 36°

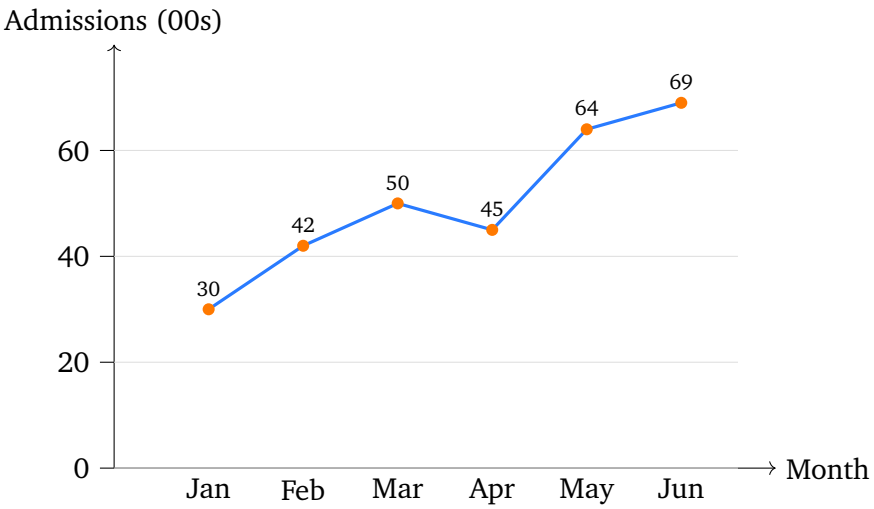
(B) 43.2°

(C) 30°

(D) 28.8°

Part D: Line Graph Interpretation

Directions (Q15–Q18): The line graph shows the monthly hospital admissions (in hundreds) at St. Mary's Hospital from January to June. Study it and answer the questions.



Q15. What is the total number of admissions over the six months (in hundreds)?

(A) 300

(B) 290

(C) 310

(D) 280

Q16. In which month was the increase in admissions over the previous month the highest?

(A) March

(B) June

(C) May

(D) February

Q17. What is the percentage drop in admissions from March to April?

(A) 8%

(B) 10%

(C) 12%

(D) 5%

Q18. What is the average monthly admissions over the six months (in hundreds)?

(A) 45

(B) 52

(C) 48

(D) 50

Part E: Caselet Interpretation

Directions (Q19–Q22): Read the caselet and answer the questions.

A city hospital admitted **1500** patients in a month. Of these, **40%** were emergency admissions and the rest were planned admissions. Among the emergency admissions, **30%** required surgery and the rest did not. Among the planned admissions, **60%** required surgery and the rest did not.

Q19. How many planned admissions did the hospital have?

(A) 600

(B) 900

(C) 750

(D) 540

Q20. How many emergency admissions did not require surgery?

(A) 420

(B) 180

(C) 360

(D) 540

Q21. What is the total number of patients who required surgery?

(A) 700

(B) 540

(C) 720

(D) 780

Q22. What is the ratio of emergency surgeries to planned surgeries?

(A) 1 : 2

(B) 3 : 1

(C) 2 : 3

(D) 1 : 3

Part F: Data Sufficiency

Directions (Q23–Q30): Each question is followed by two statements, I and II. Decide whether the data given in the statements are sufficient to answer the question, and mark:

(A) if Statement I alone is sufficient, but Statement II alone is not;

(B) if Statement II alone is sufficient, but Statement I alone is not;

(C) if both statements together are sufficient, but neither alone is sufficient;

(D) if even both statements together are not sufficient.

Q23. What is the value of y?

I. $4y + 8 = 40$. **II.** y is a positive even number.

(A) Statement I alone is sufficient, but Statement II alone is not.

(B) Statement II alone is sufficient, but Statement I alone is not.

(C) Both statements together are sufficient, but neither alone is sufficient.

(D) Even both statements together are not sufficient.

Q24. What is the average age of the patients in a ward?

I. The oldest patient in the ward is 70 years old. **II.** The combined age of all 20 patients in the ward is 900 years.

(A) Statement I alone is sufficient, but Statement II alone is not.

(B) Statement II alone is sufficient, but Statement I alone is not.

(C) Both statements together are sufficient, but neither alone is sufficient.

(D) Even both statements together are not sufficient.

Q25. What is the total room charge for a patient's stay?

I. The room costs Rs. 2000 per day. **II.** The patient occupied the room for 5 days.

(A) Statement I alone is sufficient, but Statement II alone is not.

(B) Statement II alone is sufficient, but Statement I alone is not.

(C) Both statements together are sufficient, but neither alone is sufficient.

(D) Even both statements together are not sufficient.

Q26. What is the two-digit number?

I. Its tens digit is greater than its units digit. **II.** The sum of its digits is 10.

(A) Statement I alone is sufficient, but Statement II alone is not.

(B) Statement II alone is sufficient, but Statement I alone is not.

(C) Both statements together are sufficient, but neither alone is sufficient.

(D) Even both statements together are not sufficient.

Q27. What is the age of the senior consultant?

I. His age is a multiple of 5. **II.** His age is between 50 and 70 years.

(A) Statement I alone is sufficient, but Statement II alone is not.

(B) Statement II alone is sufficient, but Statement I alone is not.

(C) Both statements together are sufficient, but neither alone is sufficient.

(D) Even both statements together are not sufficient.

Q28. What is the discount percent offered on a health-checkup package?

I. The discount amount is Rs. 300. **II.** A package listed at Rs. 2000 is sold for Rs. 1500.

(A) Statement I alone is sufficient, but Statement II alone is not.

(B) Statement II alone is sufficient, but Statement I alone is not.

(C) Both statements together are sufficient, but neither alone is sufficient.

(D) Even both statements together are not sufficient.

Q29. How many male doctors are there in the hospital?

I. There are 120 doctors in total. **II.** The ratio of male to female doctors is $5 : 3$.

(A) Statement I alone is sufficient, but Statement II alone is not.

(B) Statement II alone is sufficient, but Statement I alone is not.

(C) Both statements together are sufficient, but neither alone is sufficient.

(D) Even both statements together are not sufficient.

Q30. By what percent did hospital admissions increase from 2022 to 2023?

I. Admissions were 5000 in 2022 and 6000 in 2023. **II.** Admissions increased by 1000.

(A) Statement I alone is sufficient, but Statement II alone is not.

(B) Statement II alone is sufficient, but Statement I alone is not.

(C) Both statements together are sufficient, but neither alone is sufficient.

(D) Even both statements together are not sufficient.

Detailed Solutions

Q1.

Solution

Concept — Table Reading: The total for a hospital is the sum of its four department values, which is already given in the last column.

Step 1 — Locate the Greenwood row:

$$\text{Cardiology} = 45,\ \text{Orthopedics} = 55,\ \text{Pediatrics} = 60,\ \text{Neurology} = 40.$$

Step 2 — Add the first two values:

$$45 + 55 = 100.$$

Step 3 — Continue the addition:

$$100 + 60 = 160, \qquad 160 + 40 = 200.$$

Why other options are wrong:

- Option B: 190 is the Hillcrest total.
- Option C: 210 exceeds the true row sum.
- Option D: 180 is the Riverside (and Lakeview) total.

Final Answer: Greenwood total $= 200$ (hundreds) $\Rightarrow \boxed{\text{A}}$

Answer: (A) Go Back to Q1

Q2.

Solution

Concept — Comparing Totals: Read the Total column and pick the largest value.

Step 1 — List the hospital totals:

$$\text{Riverside} = 180,\ \text{Hillcrest} = 190,\ \text{Lakeview} = 180,\ \text{Greenwood} = 200,\ \text{Summit} = 170.$$

Step 2 — Compare the values:

$$200 > 190 > 180 = 180 > 170.$$

Step 3 — Identify the highest:

$$\text{Greenwood} = 200 \text{ is the maximum.}$$

Why other options are wrong:

- Option A: Summit is the lowest at 170.
- Option B: Hillcrest is second at 190.
- Option D: Riverside is 180.

Final Answer: Greenwood has the highest total $\Rightarrow$ $\boxed{\text{C}}$

Answer: (C) Go Back to Q2

Q3.

Solution

Concept — Column Sum: Add the Pediatrics value down every hospital row.

Step 1 — List the Pediatrics values:

$$50,\ 40,\ 45,\ 60,\ 55.$$

Step 2 — Add in pairs:

$$50 + 40 = 90, \qquad 45 + 55 = 100.$$

Step 3 — Combine the running totals:

$$90 + 100 = 190, \qquad 190 + 60 = 250.$$

Why other options are wrong:

- Option A: 280 is the Cardiology column total.
- Option C: 205 is the Orthopedics column total.
- Option D: 185 is the Neurology column total.

Final Answer: Total Pediatrics patients $= 250$ (hundreds) $\Rightarrow$ $\boxed{\text{B}}$

Answer: (B) Go Back to Q3

Q4.

Solution

Concept — Ratio: Write the two required values as a ratio, then divide both by their common factor.

Step 1 — Read the two values:

$$\text{Lakeview Cardiology} = 70, \qquad \text{Hillcrest Neurology} = 50.$$

Step 2 — Form the ratio:

$$70 : 50.$$

Step 3 — Divide both parts by 10:

$$70 : 50 = 7 : 5.$$

Why other options are wrong:

- Option A: $5 : 7$ inverts the ratio.
- Option B: $7 : 6$ misreads the Neurology value.
- Option C: $5 : 4$ uses the wrong values.

Final Answer: Ratio $= 70 : 50 = 7 : 5 \Rightarrow \boxed{\text{D}}$

Answer: (D) Go Back to Q4

Q5.

Solution

Concept — Average: Average $= \dfrac{\text{sum of the values}}{\text{number of values}}$.

Step 1 — List the Neurology values:

$$30,\ 50,\ 35,\ 40,\ 30.$$

Step 2 — Add them:

$$30 + 50 + 35 + 40 + 30 = 185.$$

Step 3 — Divide by the 5 hospitals:

$$\frac{185}{5} = 37.$$

Why other options are wrong:

- Option A: 40 divides a wrong total.
- Option B: 35 undercounts the sum.
- Option D: 41 rounds incorrectly.

Final Answer: Average Neurology patients $= \frac{185}{5} = 37$ (hundreds) $\Rightarrow$ C

Answer: (C) Go Back to Q5

Q6.

Solution

Concept — Reading Grouped Bars: For a single year, add the In-patient bar and the Out-patient bar.

Step 1 — Read the 2022 bars:

$$\text{In-patients} = 40, \qquad \text{Out-patients} = 55.$$

Step 2 — Add the two:

$$40 + 55 = 95.$$

Why other options are wrong:

- Option A: 85 reads one bar too low.
- Option B: 90 undercounts the Out-patient bar.
- Option C: 100 rounds both bars up.

Final Answer: Total 2022 patients $= 40 + 55 = 95$ thousand $\Rightarrow$ D

Answer: (D) Go Back to Q6

Q7.

Solution

Concept — Reading the Tallest Bar: Scan the Out-patient bars and find the year with the greatest height.

Step 1 — List the Out-patient values:

$$2019 : 50,\ 2020 : 45,\ 2021 : 60,\ 2022 : 55,\ 2023 : 70.$$

Step 2 — Compare the values:

$$70 > 60 > 55 > 50 > 45.$$

Step 3 — Identify the maximum year:

$$\text{Out-patients are highest in } 2023 \text{ at } 70.$$

Why other options are wrong:

- Option B: 2022 has 55 Out-patients.
- Option C: 2021 has 60, still below 2023.
- Option D: 2020 has the lowest at 45.

Final Answer: Out-patients are highest in 2023 $\Rightarrow$ $\boxed{\text{A}}$

Answer: (A) Go Back to Q7

Q8.

Solution

Concept — Percentage Increase: Percentage increase $= \dfrac{\text{final} - \text{initial}}{\text{initial}} \times 100.$

Step 1 — Read the two In-patient values:

$$2019 = 20, \qquad 2023 = 50.$$

Step 2 — Find the increase:

$$50 - 20 = 30.$$

Step 3 — Divide by the initial value and multiply by 100:

$$\frac{30}{20} \times 100 = 150\%.$$

Why other options are wrong:

- Option A: 100% uses an increase of 20.
- Option C: 200% uses an increase of 40.
- Option D: 250% divides by a wrong base.

Final Answer: Increase $= \frac{30}{20} \times 100 = 150\% \Rightarrow \boxed{\text{B}}$

Answer: (B) Go Back to Q8

Q9.

Solution

Concept — Series Sum: Add the In-patient value across all five years.

Step 1 — List the In-patient values:

$$20,\ 25,\ 30,\ 40,\ 50.$$

Step 2 — Add in stages:

$$20 + 25 = 45, \qquad 30 + 40 = 70.$$

Step 3 — Combine the partial sums:

$$45 + 70 = 115, \qquad 115 + 50 = 165.$$

Why other options are wrong:

- Option B: 160 drops 5 somewhere.
- Option C: 175 adds an extra 10.
- Option D: 150 undercounts the series.

Final Answer: Total In-patients $= 165$ thousand $\Rightarrow \boxed{\text{A}}$

Answer: (A) Go Back to Q9

Q10.

Solution

Concept — Ratio from a Bar Graph: Read both bars for the year and reduce the ratio.

Step 1 — Read the 2021 bars:

$$\text{In-patients} = 30, \qquad \text{Out-patients} = 60.$$

Step 2 — Form the ratio:

$$30 : 60.$$

Step 3 — Divide both parts by 30:

$$30 : 60 = 1 : 2.$$

Why other options are wrong:

- Option A: $2 : 1$ inverts the ratio.
- Option B: $1 : 3$ misreads the Out-patient bar.
- Option D: $2 : 3$ does not reduce from $30 : 60$.

Final Answer: Ratio $= 30 : 60 = 1 : 2 \Rightarrow$ C

Answer: (C) Go Back to Q10

Q11.

Solution

Concept — Percentage of a Total: A slice value = slice percent $\times$ total.

Step 1 — Read the Surgery share:

$$\text{Surgery} = 20\%.$$

Step 2 — Apply it to the 800 beds:

$$\frac{20}{100} \times 800.$$

Step 3 — Compute:

$$0.20 \times 800 = 160.$$

Why other options are wrong:

- Option A: 140 uses a 17.5% share.
- Option B: 150 has no valid basis.
- Option D: 200 uses a 25% share.

Final Answer: Surgery beds $= 20\%$ of $800 = 160 \Rightarrow \boxed{C}$

Answer: (C) Go Back to Q11

Q12.

Solution

Concept — Ranking Shares: Order the percentages and pick the second largest.

Step 1 — List the shares:

Gen. Med. $= 30$, Surgery $= 20$, Cardiology $= 15$, Pediatrics $= 15$, Orthopedics $= 12$, ICU $= 8$.

Step 2 — Identify the top two:

$$\text{Largest} = \text{Gen. Medicine } 30\%, \qquad \text{Second} = \text{Surgery } 20\%.$$

Why other options are wrong:

- Option B: Cardiology (15%) is tied for third.
- Option C: Pediatrics (15%) is tied for third.
- Option D: General Medicine is the largest, not the second.

Final Answer: Surgery (20%) is the second highest $\Rightarrow \boxed{A}$

Answer: (A) Go Back to Q12

Q13.

Solution

Concept — Difference of Two Shares: Convert the percentage gap into beds using the total.

Step 1 — Find the gap in percentage:

$$30\% - 15\% = 15\%.$$

Step 2 — Apply the gap to 800 beds:

$$\frac{15}{100} \times 800.$$

Step 3 — Compute:

$$0.15 \times 800 = 120.$$

Why other options are wrong:

- Option A: 100 uses a 12.5% gap.
- Option C: 150 uses an 18.75% gap.
- Option D: 90 uses an 11.25% gap.

Final Answer: Gap $= 15\%$ of $800 = 120$ beds $\Rightarrow \boxed{\text{B}}$

Answer: (B) Go Back to Q13

Q14.

Solution

Concept — Percentage to Angle: A full circle is $360°$, so a slice angle $=$ slice percent $\times 360°$.

Step 1 — Read the ICU share:

$$\text{ICU} = 8\%.$$

Step 2 — Multiply by $360°$:

$$\frac{8}{100} \times 360.$$

Step 3 — Compute:

$$0.08 \times 360 = 28.8°.$$

Why other options are wrong:

- Option A: $36°$ uses a 10% share.
- Option B: $43.2°$ is the Orthopedics (12%) angle.
- Option C: $30°$ uses an 8.33% share.

Final Answer: ICU angle $= 8\%$ of $360° = 28.8° \Rightarrow \boxed{\text{D}}$

Answer: (D) Go Back to Q14

Q15.

Solution

Concept — Series Sum: Add the admissions value read at each of the six points.

Step 1 — List the monthly values:

$$30,\ 42,\ 50,\ 45,\ 64,\ 69.$$

Step 2 — Add in convenient pairs:

$$30 + 50 = 80, \qquad 42 + 69 = 111, \qquad 45 + 64 = 109.$$

Step 3 — Combine the partial sums:

$$80 + 111 = 191, \qquad 191 + 109 = 300.$$

Why other options are wrong:

- Option B: 290 drops 10 from the total.
- Option C: 310 adds an extra 10.
- Option D: 280 undercounts.

Final Answer: Total admissions $= 300$ (hundreds) $\Rightarrow \boxed{\text{A}}$

Answer: (A) Go Back to Q15

Q16.

Solution

Concept — Month-on-Month Change: Subtract each month's value from the previous month and find the largest positive jump.

Step 1 — Compute the early changes:

$$\text{Feb} : 42 - 30 = +12, \quad \text{Mar} : 50 - 42 = +8, \quad \text{Apr} : 45 - 50 = -5.$$

Step 2 — Continue for the last two months:

$$\text{May} : 64 - 45 = +19, \qquad \text{Jun} : 69 - 64 = +5.$$

Step 3 — Pick the largest rise:

$$+19 \text{ in May is the highest.}$$

Why other options are wrong:

- Option A: March rose only 8.
- Option B: June rose 5.
- Option D: February rose 12.

Final Answer: The largest rise ($+19$) occurs in May $\Rightarrow$ $\boxed{\text{C}}$

Answer: (C) Go Back to Q16

Q17.

Solution

Concept — Percentage Drop: Percentage drop $= \dfrac{\text{fall}}{\text{original}} \times 100$, where the original is the earlier value.

Step 1 — Read March and April:

$$\text{March} = 50, \qquad \text{April} = 45.$$

Step 2 — Find the fall:

$$50 - 45 = 5.$$

Step 3 — Divide by March and multiply by 100:

$$\frac{5}{50} \times 100 = 10\%.$$

Why other options are wrong:

- Option A: 8% understates the fall.
- Option C: 12% overstates the fall.
- Option D: 5% divides by 100 instead of 50.

Final Answer: Drop $= \frac{5}{50} \times 100 = 10\% \Rightarrow \boxed{\text{B}}$

Answer: (B) Go Back to Q17

Q18.

Solution

Concept — Average of a Series: $\text{Average} = \dfrac{\text{total}}{\text{number of months}}$.

Step 1 — Use the total from Q15:

$$\text{Total} = 300.$$

Step 2 — Divide by the 6 months:

$$\frac{300}{6} = 50.$$

Why other options are wrong:

- Option A: 45 divides a smaller total.
- Option B: 52 divides a larger total.
- Option C: 48 rounds incorrectly.

Final Answer: Average admissions $= \frac{300}{6} = 50$ (hundreds) $\Rightarrow \boxed{\text{D}}$

Answer: (D) Go Back to Q18

Q19.

Solution

Concept — Percentage of a Whole: The planned admissions are the part left after removing the emergency share.

Step 1 — Planned are $100\% - 40\% = 60\%$ of the admissions:

$$\text{Planned} = 60\% \text{ of } 1500.$$

Step 2 — Compute the value:

$$\frac{60}{100} \times 1500 = 900.$$

Why other options are wrong:

- Option A: 600 is the number of emergency admissions (40%).
- Option C: 750 is half the total, not 60%.
- Option D: 540 is the planned surgeries.

Final Answer: Planned admissions $= 60\%$ of $1500 = 900 \Rightarrow \boxed{B}$

Answer: (B) Go Back to Q19

Q20.

Solution

Concept — Successive Percentages: First find the emergency admissions, then the share of them that did not need surgery.

Step 1 — Number of emergency admissions:

$$40\% \text{ of } 1500 = 600.$$

Step 2 — Non-surgery emergencies are the $100\% - 30\% = 70\%$ share:

$$70\% \text{ of } 600.$$

Step 3 — Compute:

$$\frac{70}{100} \times 600 = 420.$$

Why other options are wrong:

- Option B: 180 is the emergency admissions that required surgery (30%).
- Option C: 360 is the planned admissions that did not need surgery.
- Option D: 540 is the planned surgeries.

Final Answer: Emergency non-surgery $= 70\%$ of $600 = 420 \Rightarrow \boxed{A}$

Answer: (A) Go Back to Q20

Q21.

Solution

Concept — Combining Two Groups: Add the emergency surgeries and the planned surgeries.

Step 1 — Emergency surgeries:

$$30\% \text{ of } 600 = 180.$$

Step 2 — Planned surgeries:

$$60\% \text{ of } 900 = 540.$$

Step 3 — Add the two:

$$180 + 540 = 720.$$

Why other options are wrong:

- Option A: 700 rounds the figures down.
- Option B: 540 counts only the planned surgeries.
- Option D: 780 overcounts by 60.

Final Answer: Total surgeries $= 180 + 540 = 720 \Rightarrow \boxed{C}$

Answer: (C) Go Back to Q21

Q22.

Solution

Concept — Ratio of Two Counts: Form the ratio of the two surgery figures and reduce it.

Step 1 — Recall the two counts:

$$\text{Emergency surgeries} = 180, \qquad \text{Planned surgeries} = 540.$$

Step 2 — Form the ratio:

$$180 : 540.$$

Step 3 — Divide both parts by 180:

$$180 : 540 = 1 : 3.$$

Why other options are wrong:

- Option A: $1 : 2$ misreads the planned figure.
- Option B: $3 : 1$ inverts the ratio.
- Option C: $2 : 3$ does not reduce from $180 : 540$.

Final Answer: Ratio $= 180 : 540 = 1 : 3 \Rightarrow \boxed{D}$

Answer: (D) Go Back to Q22

Q23.

Solution

Concept — Data Sufficiency: A statement is sufficient if it fixes a single value of y.

Step 1 — Test Statement I:

$$4y + 8 = 40 \Rightarrow 4y = 32 \Rightarrow y = 8.$$

This gives one value, so I alone is sufficient.

Step 2 — Test Statement II:

$$y \text{ a positive even number allows } 2, 4, 6, 8, \ldots \text{ (many values).}$$

So II alone is not sufficient.

Step 3 — Conclusion:

$$\text{I alone works, II alone does not} \Rightarrow \text{answer (A).}$$

Final Answer: Statement I alone is sufficient $\Rightarrow \boxed{\text{A}}$

Answer: (A) Go Back to Q23

Q24.

Solution

Concept — Average Needs a Total and a Count: The average age is the total age divided by the number of patients.

Step 1 — Test Statement I:

$$\text{Oldest patient} = 70 \text{ tells nothing about the sum or the count} \Rightarrow \text{not sufficient.}$$

Step 2 — Test Statement II:

$$\text{Total age} = 900, \ \text{count} = 20 \Rightarrow \text{Average} = \frac{900}{20} = 45.$$

So II alone is sufficient.

Step 3 — Conclusion:

$$\text{Only II settles it} \Rightarrow \text{answer (B)}.$$

Final Answer: Statement II alone is sufficient $\Rightarrow$ $\boxed{\text{B}}$

Answer: (B) Go Back to Q24

Q25.

Solution

Concept — Combining Statements: The total room charge is the daily rate times the number of days; check if either alone can give it.

Step 1 — Test Statement I:

$$\text{Rate} = \text{Rs. } 2000/\text{day only; days unknown} \Rightarrow \text{not sufficient}.$$

Step 2 — Test Statement II:

$$\text{Days} = 5 \text{ only; rate unknown} \Rightarrow \text{not sufficient}.$$

Step 3 — Combine I and II:

$$2000 \times 5 = 10000.$$

Together they give a unique charge.

Step 4 — Conclusion:

$$\text{Both needed, neither alone} \Rightarrow \text{answer (C)}.$$

Final Answer: Both statements together are needed $\Rightarrow$ $\boxed{\text{C}}$

Answer: (C) Go Back to Q25

Q26.

Solution

Concept — Multiple Solutions: If the two conditions allow more than one number, the data is not sufficient.

Step 1 — Test Statement I:

$$\text{Tens digit} > \text{units digit: many numbers } (21, 31, 54, \ldots).$$

Step 2 — Test Statement II:

$$\text{Digit sum} = 10: \text{ many numbers } (19, 28, 37, 46, 55, \ldots).$$

Step 3 — Combine I and II:

$$\text{Sum } 10 \text{ with tens} > \text{units: } 91, 82, 73, 64.$$

The number is still not unique.

Step 4 — Conclusion:

$$\text{Even together, several numbers} \Rightarrow \text{answer (D)}.$$

Final Answer: Even both statements together are not sufficient $\Rightarrow \boxed{\text{D}}$

Answer: (D) Go Back to Q26

Q27.

Solution

Concept — Range with Several Candidates: If the two conditions still allow more than one age, the data is not sufficient.

Step 1 — Test Statement I:

$$\text{Age a multiple of } 5: \text{ many values } (50, 55, 60, \ldots).$$

Step 2 — Test Statement II:

$$\text{Age between } 50 \text{ and } 70: \text{ many values } (51, 52, \ldots, 69).$$

Step 3 — Combine I and II:

$$\text{Multiples of } 5 \text{ strictly between } 50 \text{ and } 70 : \{55, 60, 65\}.$$

The age is still not unique.

Step 4 — Conclusion:

$$\text{Even together, three possible ages} \Rightarrow \text{answer (D)}.$$

Final Answer: Even both statements together are not sufficient $\Rightarrow$ $\boxed{\text{D}}$

Answer: (D) Go Back to Q27

Q28.

Solution

Concept — Discount Percent Needs List Price and Discount: The discount percent is the discount amount divided by the list price.

Step 1 — Test Statement I:

$$\text{Discount} = \text{Rs. } 300 \text{ only; list price unknown} \Rightarrow \text{not sufficient}.$$

Step 2 — Test Statement II:

$$\text{List} = 2000,\ \text{sold} = 1500 \ \Rightarrow\ \text{discount} = 500 \ \Rightarrow\ \frac{500}{2000} \times 100 = 25\%.$$

So II alone is sufficient.

Step 3 — Conclusion:

$$\text{Only II fixes the percent} \Rightarrow \text{answer (B)}.$$

Final Answer: Statement II alone is sufficient $\Rightarrow$ $\boxed{\text{B}}$

Answer: (B) Go Back to Q28

Q29.

Solution

Concept — Ratio Needs a Total: A ratio gives the count of male doctors only when the overall total is also known.

Step 1 — Test Statement I:

$$\text{Total} = 120 \text{ only; male–female split unknown} \Rightarrow \text{not sufficient.}$$

Step 2 — Test Statement II:

$$\text{Male} : \text{Female} = 5 : 3 \text{ only; total unknown} \Rightarrow \text{not sufficient.}$$

Step 3 — Combine I and II:

$$\text{Male} = \frac{5}{5+3} \times 120 = \frac{5}{8} \times 120 = 75.$$

Together they give a unique count.

Step 4 — Conclusion:

$$\text{Both needed, neither alone} \Rightarrow \text{answer (C).}$$

Final Answer: Both statements together are needed $\Rightarrow$ $\boxed{\text{C}}$

Answer: (C) Go Back to Q29

Q30.

Solution

Concept — Percentage Change Needs Base and Change: The percent rise is the increase divided by the starting value.

Step 1 — Test Statement I:

$$2022 = 5000,\ 2023 = 6000 \ \Rightarrow\ \frac{6000 - 5000}{5000} \times 100 = 20\%.$$

So I alone is sufficient.

Step 2 — Test Statement II:

$$\text{Increase} = 1000 \text{ only; the 2022 base is unknown} \Rightarrow \text{not sufficient.}$$

Step 3 — Conclusion:

$$\text{Only I fixes the percent} \Rightarrow \text{answer (A)}.$$

Final Answer: Statement I alone is sufficient $\Rightarrow$ $\boxed{\text{A}}$

Answer: (A) Go Back to Q30

Answer Key

IBSAT Data Adequacy & Data Interpretation – Sample Paper 9									
Q	**Ans**	**Q**	**Ans**	**Q**	**Ans**	**Q**	**Ans**	**Q**	**Ans**
1	A	2	C	3	B	4	D	5	C
6	D	7	A	8	B	9	A	10	C
11	C	12	A	13	B	14	D	15	A
16	C	17	B	18	D	19	B	20	A
21	C	22	D	23	A	24	B	25	C
26	D	27	D	28	B	29	C	30	A