

Question 1: Sequence: 4, 9, 19, 39, 79, ... What is the next number?

- a) 138
- b) 159
- c) 149
- d) 1000

Question 2: Sequence: 2, 3, 5, 9, 17, ... What is the next term?

- a) 30
- b) 33
- c) 31
- d) 43

Question 3: Three consecutive odd numbers sum to 81. What is the middle number?

- a) 25
- b) 27
- c) 29
- d) 20

Question 4: A ribbon 2.5 m long is cut into pieces each 0.25 m long. How many pieces are made?

- a) 8
- b) 10
- c) 12
- d) 14

Question 5: Five children stand in a row. Tom is left of Sara but right of Mina. Raj is at one end and is right of Tom. Who is at the left end? (Children order left→right.)

- a) Raj
- b) Mina
- c) Sara
- d) Tom

Question 6: A bag has red and blue marbles. If the probability of picking a red marble is $\frac{1}{3}$ and there are 15 marbles total, how many red marbles?

- a) 5
- b) 4
- c) 6
- d) 8

Question 7: A shop gives 10% discount on a ₹250 toy. What is the sale price?

- a) ₹235
- b) ₹225
- c) ₹240
- d) ₹248

Question 8: Pattern 1, 4, 9, 16, 25, ... What is the 8th term?

- a) 49
- b) 64
- c) 36
- d) 38

Question 9: A ferry carries 12 people per trip. It makes 7 full trips and one half-full trip. How many people in total?

- a) 90
- b) 96
- c) 100
- d) 93

Question 10: A jar contains 60 candies. 25% are sour, $\frac{1}{3}$ are sweet, and rest are mint. How many mint candies?

- a) 20
- b) 15
- c) 25
- d) 35

Question 11: Four pets (cat, dog, rabbit, bird) each with different colours (brown, white, black, yellow). If the white pet is not the dog and the rabbit is black, which colour is the cat if the yellow pet is the bird?

- a) brown
- b) white
- c) black
- d) stone

Question 12: A baker makes 360 cookies equally packed into boxes of 15. How many boxes?

- a) 24
- b) 22
- c) 26
- d) 28

Question 13: Lisa reads 30 pages in 45 minutes. How many pages per hour?

- a) 40 pages/hour
- b) 50 pages/hour
- c) 60 pages/hour
- d) 62 pages/hour

Question 14: Pattern 5, 8, 14, 26, 50,...

rule: next = previous + (previous – one before)
× ? Find the next term (pattern: differences: 3, 6, 12, 24).

- a) 98
- b) 100
- c) 94
- d) 96

Question 15: A survey shows 12 students prefer cats, 9 prefer dogs, 4 prefer birds. What fraction prefer dogs?

- a) $\frac{3}{5}$
- b) $\frac{9}{24}$
- c) $\frac{9}{25}$
- d) $\frac{9}{28}$

Question 16: A 3×3 magic sum grid uses numbers 1–9. The centre must be which number?

- a) 5
- b) 6
- c) 4
- d) 9

Question 17: A train leaves at 09:20 and travels 125 km at 50 km/h. How long will it take (hours and minutes) to reach?

- a) 2 h 30 min
- b) 2 h 15 min
- c) 2 h 20 min
- d) 2 h 25 min

Question 18: If $\frac{3}{4}$ of a classroom of 28 students are present, how many are present?

- a) 20
- b) 21
- c) 22
- d) 26

Question 19: Letters: B, D, G, K, P, ... What is next?

- a) U
- b) V
- c) T
- d) Q

Question 20: A rectangular playground 30 m by 20 m. A 2 m wide path around inside reduces playable area. What is new area?

- a) 400 m²
- b) 324 m²
- c) 280 m²
- d) 416 m²

Question 21: A family of 6 sits around table. Each person shakes hands with every other person exactly once. How many handshakes?

- a) 15
- b) 12
- c) 18
- d) 16

Question 22: A small bar chart shows month sales (Jan–Mar): 20, 30, 50 books. What is the average monthly sales?

- a) 33.33
- b) 30
- c) 40
- d) 35

Question 23: A recipe needs $\frac{3}{8}$ cup sugar for one cake. To make 4 cakes, how many cups?

- a) $1\frac{1}{2}$ cups
- b) $1\frac{1}{4}$ cups
- c) 2 cups
- d) $1\frac{1}{6}$ cups

Question 24: Three boxes labelled APPLES, ORANGES, APPLES + ORANGES are all wrong. You pick one fruit from box labelled APPLES + ORANGES and find an apple. Which box actually contains only apples?

- a) Box labelled ORANGES
- b) Box labelled APPLES
- c) Box labelled APPLES + ORANGES
- d) Box labelled APPLES + BANANA

Question 25: A rectangle's length is twice its width. If perimeter is 90 cm, what is the width?

- a) 15 cm
- b) 10 cm
- c) 18 cm
- d) 25 cm

Question 26: You have numbers 2,3,5,7,11 — how many primes are there that are odd?

- a) 4
- b) 5
- c) 3
- d) 2

Question 27: If every blue box contains two small red boxes, and each red box has 3 marbles, how many marbles in 4 blue boxes?

- a) 24
- b) 32
- c) 12
- d) 16

Question 28: A line graph shows temperature rising from 20°C to 26°C over 3 hours. What is the average increase per hour?

- a) 2°C/hr
- b) 3°C/hr
- c) 6°C/hr
- d) 4°C/hr

Question 29: A school plans three equal groups from 84 students. How many students per group?

- a) 28
- b) 26
- c) 24
- d) 18

Question 30: A four-digit number ABCD where A=1, B is double A, C is B+1, and D is sum of first three digits. What is the number?

- a) 1247
- b) 1224
- c) 1 2 3 6 (1236)
- d) 1258

Question 31: A shop sold pencils at ₹3 each. They made ₹540. How many pencils sold?

- a) 180
- b) 160
- c) 200
- d) 220

Question 32: If $A > B$ and $B = C + 2$ and $C = 5$, which is true?

- a) $A > 7$
- b) $A = 6$
- c) $A < 7$
- d) $A < 5$

Question 33: Pie shows quarters of 100 — if 25% are apples, 35% bananas, rest grapes — how many grapes?

- a) 40
- b) 30
- c) 50
- d) 45

Question 34: A recipe uses ratio flour: sugar = 3:1. If you need 600 g flour, how much sugar?

- a) 100 g
- b) 200 g
- c) 150 g
- d) 180 g

Question 35: A number when divided by 7 gives remainder 4. If you add 3, what is the new remainder when divided by 7?

- a) 0
- b) 7
- c) 3
- d) 4

Question 36: Five books cost ₹450 equally. What is price per book?

- a) ₹90
- b) ₹80
- c) ₹100
- d) ₹95

Question 37: Sequence: 3, 6, 12, 24, ... what is the next number?

- a) 36
- b) 48
- c) 46
- d) 50

Question 38: Class A has 20 students with 50% girls; Class B has 30 students with 40% girls; Class C has 10 students with 30% girls. How many girls in total?

- a) 25
- b) 27
- c) 30
- d) 22

Question 39: Which number is divisible by 3?

- a) 314
- b) 312
- c) 325
- d) 326

Question 40: Sam scored 72 marks which is 80% of total. What is the full marks?

- a) 90
- b) 80
- c) 100
- d) 96

Question 41: Sequence: 2, 5, 10, 17, 26, ... rule $n^2 + 1$? What is next term?

- a) 35
- b) 37
- c) 38
- d) 36

Question 42: A store marks price ₹600 and puts 20% off then adds 10% tax on sale price. What is the final price?

- a) 528
- b) 540
- c) 600
- d) 580

Question 43: Logical grid: Three friends each have a different hobby (painting, soccer, music). Maya doesn't like music and Ravi doesn't like painting. If Sita likes soccer, who likes music?

- a) Maya
- b) Ravi
- c) Sita
- d) none

Question 44: Data: A small box contains coins: 10 paise $\times$ 5, 25 paise $\times$ 8, 50 paise $\times$ 4. Total value?

- a) ₹4.50
- b) ₹5.00
- c) ₹3.50
- d) ₹2.50

Question 45: Word problem: A farmer sells $\frac{3}{5}$ of apples and has 120 left. How many started? If remaining = $\frac{2}{5}$ and that equals 120

- a) 300
- b) 250
- c) 200
- d) 280

Question 46: In the sequence 1, 1, 2, 3, 5, 8... Each term equals previous term + number of letters in writing previous term in English?

- a) 11
- b) 13
- c) 10
- d) 12

Question 47: Two trains 60 km apart approach each other at 15 km/h and 20 km/h. How long until they meet?

- a) 1 h 43 min
- b) 2 h
- c) 1 h 30 min
- d) 3 h

Question 48: You have digits 1,2,3,4. How many 3-digit numbers can be formed without repeating digits?

- a) 24
- b) 12
- c) 36
- d) 4

Question 49: A bar chart shows class test scores: 4 students scored 90, 6 scored 80, 10 scored 70. What is median? Total students 20.

- a) 75
- b) 80
- c) 70
- d) 25

Question 50: When you face a complex problem, the best first step is to:

- a) Understand and break it into smaller parts
- b) Give up immediately
- c) Do random steps with no plan
- d) Sleep

(NOT TO BE EVALUATED)

[illegible]

ROUGH WORK

(NOT TO BE EVALUATED)

DATE

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