



MEGA
ResoFAST 2025

Resonance Future Achievers Scholarship Test

TEST PAPER

Duration
1 Hour

Currently Studying in
Class - V

Max. Marks
160

Important Instructions to the Students

1. The question paper contains a total of **40 Multiple Choice Questions**, numbered from **Q1 to Q40**.

2. **Pattern & Marking Scheme of each section:**

Parts	Subject	No. of questions	Questions Range	Marks
Part-A	Environmental Science	21	Q1 to Q21	84 M
Part-B	Mathematics	14	Q22 to Q35	56 M
Part-C	Mental Ability	05	Q36 to Q40	20 M
Total		40	Q1 to Q40	160 M

3. Attempt all questions, each having only one correct answer.

4. Each question carries **4 marks**.

5. Candidates must ensure that the **OMR Sheet is not folded or damaged** in any way. Avoid making any **stray marks** on the OMR sheet. **Do not** write your **Roll Number** anywhere except in the designated space provided in the OMR Sheet.

6. The use of **white correction fluid** is **strictly prohibited** on the OMR Sheet.

7. The use of **blank papers, clipboards, log tables, slide rules, calculators, mobile phones, or any other electronic gadgets** is **strictly not permitted** inside the examination hall.

8. There are empty pages left at the end of this question paper for **rough work**.

1. The Red Climber Mystery

In an experiment, a plant was placed in red coloured water as shown in figure 1. At the end of the day, the stem and a leaf were cut (as shown in figure 2), and the red colour was found inside them. Which of the following statements are **incorrect** regarding this observation?

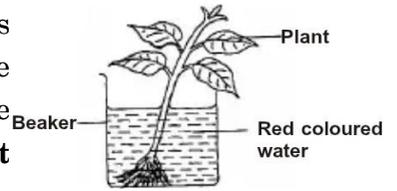


Figure 1

- (i) The stem stores water.
- (ii) The roots absorb water.
- (iii) The leaves use water to make food.
- (iv) The stem transports water from the roots to the leaves.

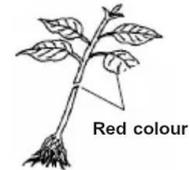
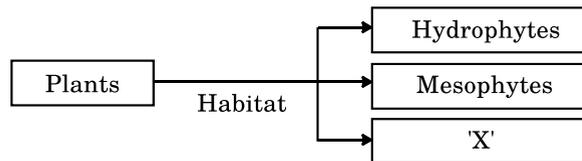


Figure 2

- (A) (iii) & (iv) (B) (i) & (iii) (C) (ii) & (iv) (D) (i) only

2. Meet the Thirst Masters!

The given figure represents the classification of plants based on their habitat. Identify 'X'.



- (A) Saprophytes (B) Xerophytes (C) Thallophytes (D) Bryophytes

3. Tracing the Hidden Root Clues

While observing a plant in the school garden, Rohan noticed certain features and concluded that the plant must have fibrous roots. Which combination of the following observations would most strongly support Rohan's conclusion?



- (i) Number of petals in the flower
 - (ii) Arrangement of branches on the stem
 - (iii) Number of fruits on the plant
 - (iv) Type of venation on the leaves
- (A) (i) & (ii) (B) (i) & (iv) (C) (ii) & (iii) (D) (iii) & (iv)

4. The Family Split Dilemma

Tanya lives in a joint family, where multiple generations share a common household. One day, her parents decide to move out to stay closer to their workplace, leading to a possible change in the family structure. What effect might this have on the family structure?

- (A) The joint family will become smaller but remain a joint family
- (B) The joint family may split into nuclear families
- (C) The joint family will become extended again
- (D) The whole family will live together even more closely

5. Modern Life, Modern Families

Consider the following statements:

- (i) Migration to urban areas can lead to separation of joint families.

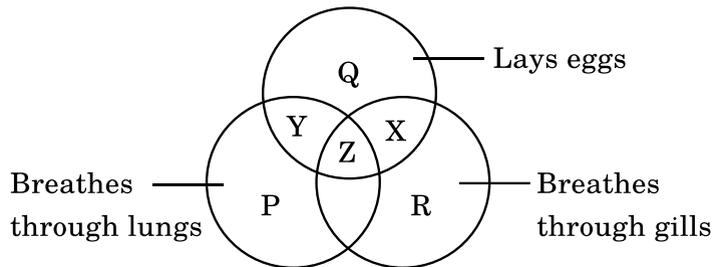
- (ii) Nuclear families depend more on elders for decision-making.
- (iii) Technological changes can influence family roles and responsibilities.
- (iv) Joint families always live in the different house.

Choose the option with correct statements.

- (A) (i) & (iii) (B) (ii) & (iv) (C) (i), (ii) & (iv) (D) (iii) & (iv)

6. The Animal Mystery Rings

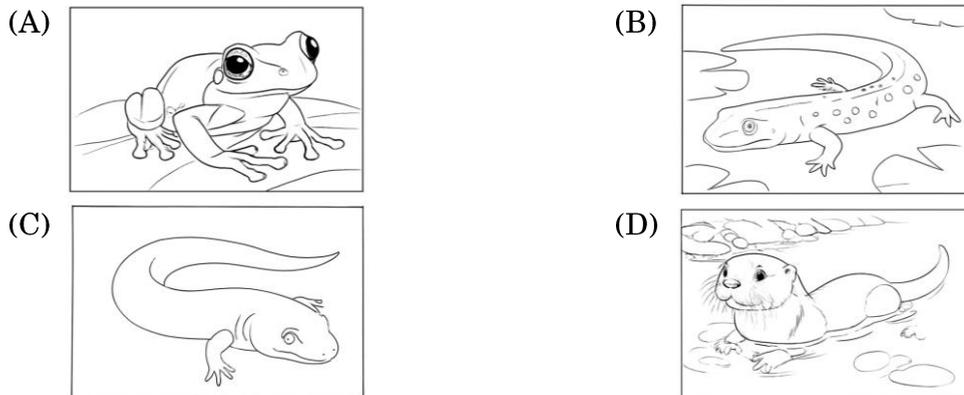
Observe the given Venn diagram and consider the following statements. Which of the following statements is incorrect.



- (A) Y could be a salamander or turtle (B) X could be a shark
 (C) P could be a lion. (D) R could be a whale.

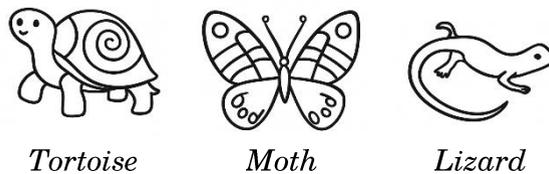
7. Who Doesn't Belong Here?

Which one of the following is not an amphibian?



8. A Secret They All Share

How are the following animals similar?



- (A) They can crawl (B) They can fly
 (C) They lay eggs (D) They have four legs.

9. The Great Animal Shuffle

Riya grouped animals based on their food habits, but each group contains one animal that does not belong. Rearrange the animals within the groups to ensure that each group contains only animals with the same food habits.

Group A: Cow, Deer, Bear

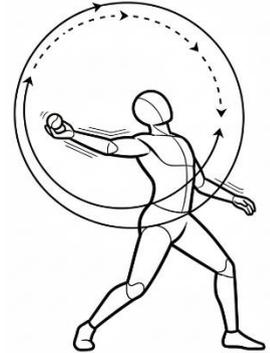
Group B: Tiger, Lion, Elephant

	(i)	(ii)	(iii)	(iv)	(v)	(vi)
(A)	F	T	T	F	T	F
(B)	T	T	F	T	F	F
(C)	T	T	T	F	T	F
(D)	T	T	T	T	F	T

14. The All-Round Arm Mystery

Venkat performs a physical exercise where he swings his arm in a complete circle, like throwing a ball overhand. Which joint allows this maximum range of movement, and what type of movement is it?

- (A) Elbow Joint: Hinge movement, allowing 360° rotation.
- (B) Shoulder Joint: Pivot movement, allowing only back-and-forth swing.
- (C) Shoulder Joint: Ball and socket movement, allowing rotation in all directions.
- (D) Knee Joint: Hinge movement, allowing movement in a circle.



15. The Tug-of-War Muscles

Match the muscle action in Column A with the correct description of its state in Column B.

	Column A (Muscle Action)		Column B (Muscle State)
i.	Bending the arm at the elbow	P.	Biceps muscle relaxes, Triceps muscle contracts
ii.	Straightening the arm	Q.	Biceps muscle contracts, Triceps muscle relaxes

Choose the option with the right match.

- (A) (i)-P; (ii)-Q
- (B) (i)-Q; (ii)-P
- (C) (i)-P; (ii)-P
- (D) (i)-Q; (ii)-Q

16. The Flight Secret

Observe the given figure and consider the following statements.

Which statement correctly explains how bones shown in the figure help in flying?

- (A) The hollow bones provide extra flexibility for the bird's neck.
- (B) The light, hollow bones help reduce the bird's body weight, essential for flying.
- (C) The hollow structure allows the bone marrow to produce more blood cells quickly.
- (D) The air in the bones helps the bird float when landing on water.



17. The Joint-Connection Confusion

Read the following statements.

Statement 1: Ligaments are strong, elastic tissues that connect two bones together at a joint.

Statement 2: Tendons are inelastic tissues that connect muscles to bones.

Choose the correct option:

- (A) Both Statement 1 and Statement 2 are incorrect.
- (B) Statement 1 is incorrect, but Statement 2 is correct.
- (C) Statement 1 is correct, but Statement 2 is incorrect.
- (D) Both Statement 1 and Statement 2 are correct.

18. Nature's Triple Action!

Read the following statements about the role of forests:

Statement 1: The roots of trees bind soil particles, which helps prevent soil erosion.

Statement 2: Forests use up carbon dioxide but release harmful gases like nitrogen, which contribute to global warming.

Statement 3: Forests help bring rainfall by releasing large amounts of water vapour into the atmosphere.

Choose the correct option:

- (A) Statements 1 and 3 are correct, but Statement 2 is incorrect.
- (B) All three statements (1, 2, and 3) are correct.
- (C) Only Statement 3 is correct, and Statements 1 and 2 are incorrect.
- (D) Statements 1 and 2 are correct, but Statement 3 is incorrect.

19. Unjumble the Hungry Hunter

Unscramble the letters and choose the option that represents a scavenger.

- (A) AAADLSRMEN
- (B) PNEETALH
- (C) HMLAECOEN
- (D) URUVTEL

20. Secrets Hidden in the Woods

Consider the following grid.

In the grid, we can find:

- (i) A hardwood tree commonly found in tropical forests.
- (ii) A herbivore animal.
- (iii) The collective plant life or vegetation of a particular region or environment.
- (iv) A grass species that grows very tall in forests.

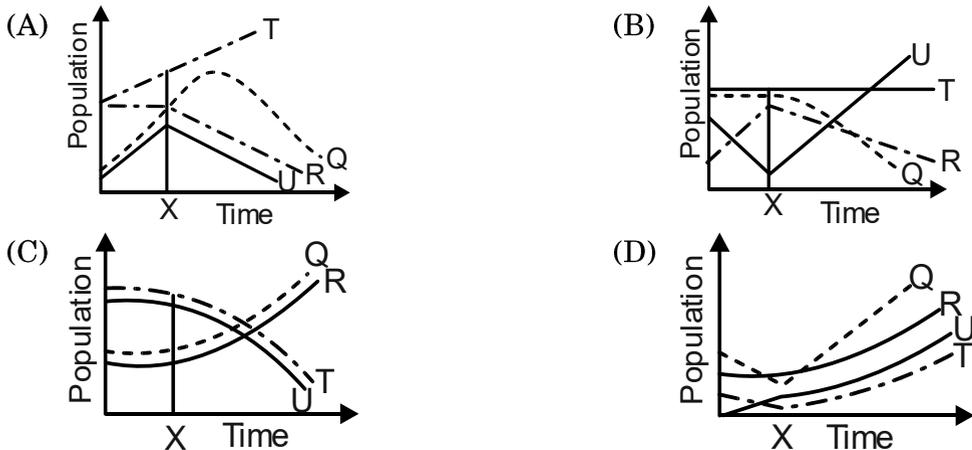
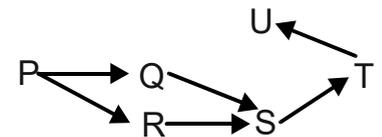
T	E	A	K	F	O	X
S	A	L	P	N	E	M
B	A	M	B	O	O	R
E	D	E	E	R	T	A
R	O	O	T	S	W	L
F	L	O	R	A	F	C
R	A	I	N	S	O	I

Choose the option with correct statement/s.

- (A) Only i & ii
- (B) Only ii & iii
- (C) Only i, ii & iii
- (D) All i, ii, iii & iv

21. When X Enters the Web!

Refer to the given food web. An organism 'X' is introduced in this community which exclusively feeds on S. Which of the following graphs best illustrates the changes in populations of Q, R, T and U over time?



22. The Smudged Number Mystery

During a monsoon evening in Hyderabad, a street vendor notes how many customers buy roasted corn every 10 minutes. He records the number of customers as:

5, 7, , 2, 6

A sudden gust of wind flips his page, and one of the groups gets smudged.

He remembers **only this clue**: “The frequency of the smudged group was exactly the average of the frequencies of all five groups.” What was the frequency of the smudged group?

- (A) 4 (B) 3 (C) 1 (D) 5

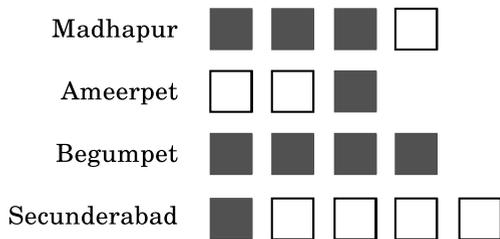
23. Battle of the Busy Stations

A futuristic Hyderabad Metro app displays “Crowd Levels” as grey and white boxes for four stations:

Grey box = 10 passengers

White box = 5 passengers

Station data:



Which station has the **second-highest** number of passengers?

- (A) Madhapur (B) Ameerpet (C) Begumpet (D) Secunderabad

24. Tick-Tock and Prime O’Clock

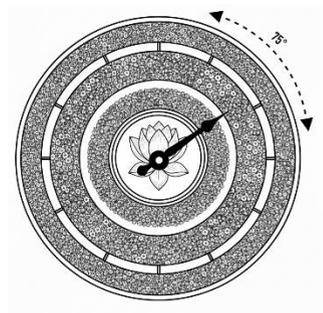
A clock tower at Secunderabad chimes whenever the **minute hand points exactly at a prime-numbered minute mark** (2, 3, 5, 7, 11...). At 4:00 PM, the minute hand starts moving. When will the **6th chime** occur?

- (A) 4:05 PM (B) 4:07 PM (C) 4:11 PM (D) 4:13 PM

25. Unlocking the 4th Blossom

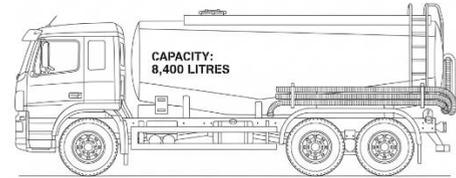
A giant floral clock in Hyderabad’s Botanical Garden opens a special lotus every time the **minute hand moves exactly 75°**. If the clock starts at **6:00**, how many minutes later does the **4th lotus** open?

- (A) 25 minutes (B) 50 minutes
 (C) 75 minutes (D) 100 minutes



26. The Vanishing Water Mystery

A water tanker in Gachibowli starts the morning with **8,400 litres**. By noon, **2,750 litres** were used for gardening and **150 litres** evaporated. A sudden rainstorm refills **half of the water lost** due to both activities. How much water is in the tank now?



- (A) 6,800 litres (B) 6,950 litres
(C) 7,000 litres (D) 7,200 litres

27. The Disappearing Coins Act!

At a weekend fair, a magician has 128 magic coins. He gives children **15 coins per performance**, and after every third performance, he donates **28 extra coins** to the charity box. How many performances can he complete before running out?



- (A) 5 (B) 6
(C) 7 (D) 8

28. The Secret Operation!

A puzzle board shows:

$$8 \rightarrow 15$$

$$12 \rightarrow 23$$

$$20 \rightarrow 39$$

$$? \rightarrow 67$$

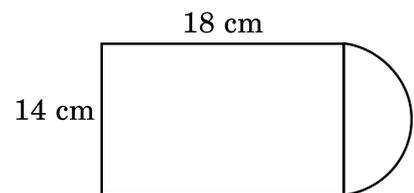
The rule is the same in all rows and involves **one addition and one subtraction**.

Which number replaces ' ? ' so that the pattern holds?

- (A) 30 (B) 32 (C) 34 (D) 36

29. The Charminar Challenge

An artisan in Charminar is designing a wooden frame shaped like this unusual outline. A rectangle of length **18 cm** and breadth **14 cm**. On its right side, a **semicircular arc** is attached whose diameter is equal to the breadth of the rectangle.



What is the **total perimeter** of this composite frame? (Use $\pi = 22/7$)

- (A) 86 cm (B) 72 cm (C) 94 cm (D) 66 cm

30. The Matchstick Growth Riddle

A metal craftsman creates triangular lamp shades using match-stick frames:

Stage 1 uses **4 sticks**

Stage 2 uses **9 sticks**

Stage 3 uses **16 sticks**

Stage 4 uses **25 sticks**

How many sticks will Stage 7 require?

- (A) 36 (B) 42 (C) 49 (D) 64

31. Two Wednesdays Ahead!

In a particular month with maximum number of days, dates that fall on **Wednesdays** form this pattern:

3, 10, 17, 24, ____

A festival is planned exactly **two Wednesdays after the last one listed**. On which date will the festival fall?

- (A) 31 (B) 7 (C) 1 (D) 14

32. Where do Extra Packs Go?

A volunteer group collects **427 food packets** to distribute equally among **18 shelters**. Each shelter must receive the **same number of packets**, and the leftover packets will go to a “Free for All” counter. How many packets go to the counter?

- (A) 11 (B) 13 (C) 15 (D) 17

33. The Digital Artist’s Number Trick

A digital artist generates number-grids where each row is formed by multiplying a starting number by an increasing sequence:

Row 1: start \times 3

Row 2: start \times 5

Row 3: start \times 7

Row 4: start \times 9

If the starting number is **12**, what is the **sum of all outputs** in the four rows?

- (A) 264 (B) 276 (C) 288 (D) 300

34. The Turn-Turn-Turn Puzzle

A delivery robot in a Hyderabad mall follows a programmed route. It starts facing **East**.

It then turns:

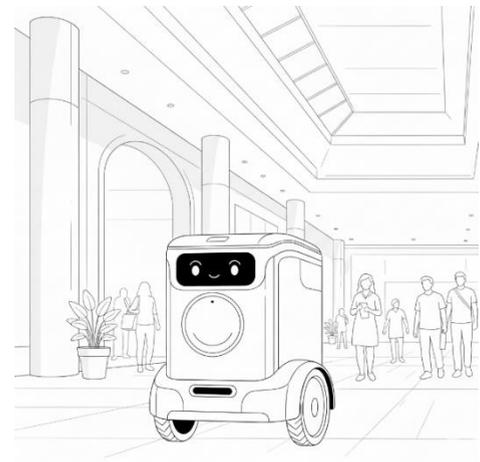
1: $\frac{1}{4}$ **turn clockwise**

2: $\frac{1}{2}$ **turn anticlockwise**

3: $\frac{1}{4}$ **turn clockwise**

Which direction is the robot facing at the end?

- (A) North (B) East
(C) South (D) West

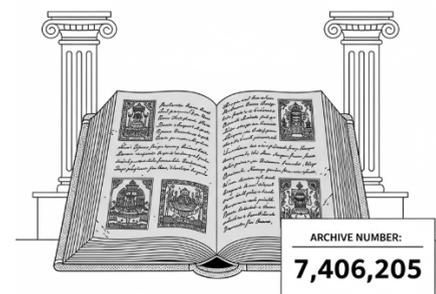


35. The Mystery of the Digit 6

A rare manuscript in the Salarjung Museum is tagged with an archive number: **7,406,205**

A student claims the digit **6** “represents sixty thousand”. Which of the following **BEST** explains what the digit **6** actually represents?

- (A) 6 hundreds (B) 6 thousands
(C) 6 ten-thousands (D) 6 hundred-thousands



Salarjung Museum, Hyderabad

PART C – MENTAL ABILITY

36. Next Stop in the Series?

Select the letter -cluster from among the given options that can replace the question mark (?) in the following series:

HJA, EMX, BPU, YSR, ?

- (A) WQK (B) VOV (C) VVO (D) XQL

37. From Beginning to Becoming

Which one of the given options would be a meaningful order of the following words in ascending order?

1. Foetus	2. Child	3. Baby	4. Adult	5. Youth
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- (A) 1, 3, 2, 5, 4 (B) 1, 3, 4, 5, 2 (C) 1, 2, 3, 5, 4 (D) 3, 1, 2, 5, 4

38. The Word Hunt

How many meaningful words of three letters can be formed by using the fifth, seventh and last letter of the word “MISFORTUNE” using each letter only once?

- (A) One (B) Two (C) Three (D) None of these

39. One Number Breaks the Pattern

Find the wrong number in the given series:

87, 116, 174, 261, 397, 522

- (A) 116 (B) 174 (C) 397 (D) 522

40. Find the Hidden Jump!

Find the next term in the series:

13, 14, 23, 48, 97, 178, ?

- (A) 251 (B) 201 (C) 284 (D) 299