## UCEED 2024 Memory Based Question Paper

1. A dice throw can result in the numbers $2,3,5$ or 6 . Every 4 th throw will result in 3 . What is the minimum number of times the dice has to be thrown for the pawn to move from zero to reach exactly at 100 ?

2. How many times does the shape sequence (shown on the top) appear in the grid below? The sequence may appear top-to-bottom, bottom-to-top, left-to-right, right-to-left or at an angle?

3. Draw a classroom view with a few students giving an exam and an invigilator observing the students. The drawing should also show the view of the classroom board and all.
4. You are standing in a park. It is 6 in the morning, and the sunlight streams through the long trees. A few dogs are resting on one of the bright patches. A person is standing next to you, watering plants. A few kids are playing Badminton on your left.

Make a freehand perspective drawing of this setup, showing all the elements listed above as seen from the point of view of a 5 feet tall person.
5. Cycle Gear question: For making the cycle stay while it is climbing a mountain, in which position must its front and back gear be? Perspective view given, find side view. Resultant of a folded image given. From the given options find how exactly to fold it to get this resultant?
6. If a normal football consists of 12 pentagons and 20 hexagons, how many vertices does it have?
7. Find direction of the ship when it malfunctions, when the captain turns the lever in a certain direction the ship moves in accordance to certain conditions.
8. Count the no. invisible sides from the stack of cubes?
9. Volume based questions. Tetrahedron - One side 120 cm , sphere radius 40 cm .
10. Find the exact lip movement animation for "Today is my day."
11. Saturn rotation: anticlockwise rotation, its ring-clockwise The image The image is undergoing certain transformation, you must find the correct top view from the options given.
12. Circles of the same thickness were given and we were asked to find the farthest/nearest.
13. Circle showing diameter is given, equilateral triangles are shown around it. Find the area of the equilateral triangle.

14. Image of a seal and the textual content in that seal is shown. What happens when the seal is punched (the resultant image)?
15. Box dimension: $12 \times 16 \times 6$. A paper cup is kept inside that of 4 cm ht. When we keep 1 more paper cup, the ht. increases by 0.5 cm . So how many paper cups are required to fill the box?

16. 8563 is written in a paper. It is cut and shuffled randomly like a jigsaw puzzle. If the cut pieces are combined-together, which will be the resultant image?
17. Identify the font.
18. Identify the no. of pair of shoes from the given image
19. 11 frames of a worm moving, 2 frames taken out, identify those 2 removed frames.
20. Paper in a word cut horizontally and strips are given. Find the right word.
21. Photography: shutter speed.
22. Coloured stripes pattern image is given. Finding base unit pattern.
23. Finding unit images which make Tessellation images.
24. Random shapes given (complex image). Find the number of triangles in the image.
25. Bee going in an infinity path (gif), speed varies. Find the correct sequential order.
26. Surface Counting: 3d object subjected to transformation, find surface of resultant.

27. Mirror question - animation figure was given, and we had to identify the mirror image.
28. Pen divided into 6 pieces. Find the resultant silhouette of this pen.
29. Shadow: Where/which is the correct shadow.

