

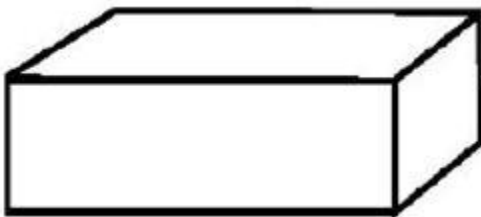
Class: VII  
Subject: Math's  
Topic: Representing 3-D in 2-D geometry  
No. of Questions: 25

Q1. Name of the solid given below:



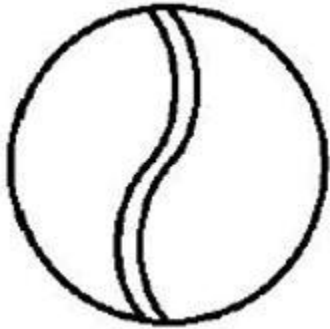
Sol: Cylinder (A cylinder is one of the most basic curvilinear geometric shapes, the surface formed by the points at a fixed distance from a given line segment, the axis of the cylinder.)

Q2. Name of the solid given below.



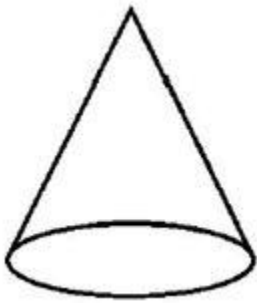
Sol: Cuboid (In geometry, a **cuboid** is a convex polyhedron bounded by six quadrilateral faces, whose polyhedral graph is the same as that of a cube)

Q3. Name of the solid given below.



Sol: Sphere (A sphere is a perfectly round geometrical object in three-dimensional space that forms the surface of a completely round ball.)

Q4. Name of the solid given below.



Sol: Cone [A cone is a three-dimensional geometric shape that tapers smoothly from a flat base (frequently, though not necessarily, circular) to a point called the apex or vertex]

Q5. The base of a prism is an octagon. Find the total number of edges on the prism?

Sol: 24 edges (Fact : Bounded by 2 octagonal faces , and 8 faces).

Q6. The number of faces of a triangular pyramid or tetrahedron is \_\_\_\_\_.

Sol: 4 (Fact : 1 base and three faces combined)

Q7. The number of triangular faces of a triangular prism is \_\_\_\_\_.

Sol: 5 (Bounded by 2 triangular bases and 3 adjoining faces.)

Q8. The number of rectangular faces of a triangular prism is \_\_\_\_\_.

Sol: 3 (Adjoining 3 rectangular faces with triangular base.)

Q9. The number of triangular faces of a rectangular pyramid is \_\_\_\_\_.

Sol: 4 (4 adjoining triangles to a rectangular base.)

Q10. The number of rectangular faces of a rectangular pyramid is \_\_\_\_\_.

Sol: 1 (Adjoining base to the 4 triangles.)

Q11. The number of edges of a triangular prism is \_\_\_\_\_.

Sol: 9 (Bounded by 3 triangular bases and 3 squares.)

Q12. The number of edges of a square pyramid is \_\_\_\_\_.

Sol: 8 (Bounded by square base and 4 triangles.)

Q13. The number of edges of a triangular pyramid is \_\_\_\_\_.

Sol: 6 (One triangular base and 3 triangles.)

Q14. The number of edges of a rectangular pyramid is \_\_\_\_\_.

Sol: 8 (Bounded by one rectangular base and 4 triangles)

Q15. The number of faces of a triangular prism is \_\_\_\_\_.

Sol: 5 (Bounded by 2 triangular bases and 3 adjoining rectangles.)

Q16. The number of faces of a triangular pyramid is \_\_\_\_\_.

Sol: 4(1 triangular base and 3 adjoining triangles)

Q17. The number of faces of a square pyramid is \_\_\_\_\_.

Sol: 5(1 square base and 4 adjoining triangles.)

Q18. The number of faces of a rectangular prism is \_\_\_\_\_.

Sol: 6 (2 rectangular bases with adjoining 4 rectangles.)

Q19. The corners of a solid shape are called its \_\_\_\_\_.

Sol: Edge (By fact)

Q20. A \_\_\_\_\_ is a skeleton-outline of a solid that can be folded to make it.

Sol: Net (By definition)

Q21. What will be the number of faces if there are 6 vertices and 12 edges?

Sol: 8 (By formula :  $V - E + F = 2$ )

Q22. What will be the number of edges if there are 12 vertices and 20 faces?

Sol: 30 (By formula :  $V - E + F = 2$ )

Q23. Which of the following is Euler's Formula:

(i)  $V - E + F = 2$

(ii)  $V + E + F = 3$

(iii)  $V - E + F = 3$

(iv)  $V + E - F = 2$

sol: (i) (By fact)

Q24. What will happen to volume of a cube of side 10 cm, if its each side is tripled?

Sol: volume will become 27 times. (By calculation.)

Q25. How many circular bases does a sphere have?

Sol: None (By definition)

askITians