CONCEPT APPLICATION LEVEL - II

SECTION -A

➢ **FILL IN THE BLANKS**

Q.1 A cuboid is called a _____.

Q.2 A regular tetrahedron has _____ faces.

Q.3 A hexagonal prism has _____ edges.

Q.4 An octagon pyramid has _____ vertices.

Q.5 A regular octahedron is formed when _____ pyramid with _____ triangles as lateral faces are joined.

Q.6 A solid figure which has only one vertex is _____.

Q.7 An iron almirah looks like a _____.

Q.8 Total faces in a pyramid which has eight edges are _____.

Q.9 A solid whose surface is made up of polygonal faces is callled a _____.

Q.10 Name the solid figure which has 6 vertices, 12 edges and 8 triangular faces _____.

Q.11 Solids are shown on paper by their _____ representations.

Q.12 If all corners of a polygon are joined to a point not lying in its plane. We get a _____.

Q.13 The side faces of a pyramid form its _____.

Q.14 The end of which a prism may be supposed to stand is called _____ of the prism.

Q.15 The perpendicular distance between the ends of a prism is its _____.

Q.16 The straight line joining the centres of the ends of a prism is called the ____ of the prism.

Q.17 A pyramid is called a quadrilateral pyramid if its base is _____.

Q.18 A tetrahedron has _____ vertices.

Q.19 Each face of a tetrahedron is an _____ triangle.

Q.20 A cylinder has _____ faces.

Q.21 An octahedron has _____ faces _____ vertices _____ edges.

Q.22 A pyramid on n sided polygon has _____ faces _____ vertices _____ edges.

Q.23 A prism on n sides polygon has _____ faces _____ vertices _____ edges.

Q.24 A regular prism has all its _____ equal.

SECTION -B

➢ **MULTIPE CHOICE QUESTIONS**

Q.1 The top view of a cuboid is a :

(A) Square (B) Rectangle (C) Parallelogram (D) None of these

Q.2 A solid cone is a :

(A) 2-dimensional figure (B) 3-dimensional figure

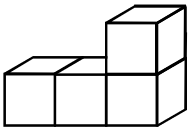
(C) Either 2-dimensional or 3-dimensional figure (D) None of these

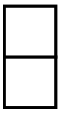
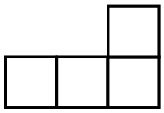
Q.3 The odd one in the following is :

(A) Sphere (B) Cylinder (C) Circle (D) Cone

Q.4 A 3-dimensional figure which does not have any vertex and any flat face is a :

(A) Sphere (B) Cylinder (C) Cone (D) None of these

Q.5 The top view of the given figure is : 

(A)  (B)  (C)  (D) None of these

Q.6 The name of the pyramid whose base is a polygon of five sides is a :
(A) Hexagonal pyramid (B) Tetrahedron (C) Pentagonal pyramid (D) None of these

Q.7 The solid which is not a polyhedron is :
(A) Pyramid (B) Prism (C) Cuboid (D) Cylinder

Q.8 If a polyhedron has 12 vertices and 8 faces, then the number of edges of the polyhedron is :
(A) 12 (B) 14 (C) 16 (D) 18

Q.9 The correct form of Euler's formula (where the symbols have their usual meanings) is :
(A) V + E – F = 2 (B) F + V – E = 2 (C) V + F – E = 1 (D) V + E – F = 1

Q.10 Which one of the following is the possible number of faces, edges and vertices respectively of a polyhedron?
(A) 5, 9, 7 (B) 8, 18, 12 (C) 8, 12, 7 (D) None of these

Q.11 The number of edge in a pyramid with square base is :
(A) 4 (B) 6 (C) 8 (D) 10

Q.12 Which is a two dimensional figure ?
(A) Circle (B) Cylinder (C) Sphere (D) Tetrahedron

Q.13 Which is a three dimensional figure ?
(A) Rhombus (B) Quadrilateral (C) Cone (D) A line segment

Q.14 How many plane faces does a cylinder has ?
(A) One (B) Two (C) Three (D) None

Q.15 Flat surface of a three dimensional figure is called :
(A) Edge (B) Vertex (C) Surface (D) Corner

Q.16 The number of vertices in a cone is :
(A) 1 (B) 2 (C) 6 (D) 8

Q.17 Solids with lines segments as their edges are called :
(A) Square (B) Polygons (C) Polyhedrons (D) Cylinders

Q.18 If E = 5, V = 3 then the value of F is :
(A) 6 (B) 4 (C) 7 (D) 2

Q.19 Which of the following solids has maximum number of vertices ?
(A) Cylinder (B) Cuboid (C) Cone (D)Tetrahedron

Q.20 If polyhedron has six faces and eight vertices, find the number of edges.
(A) 12 (B) 10 (C) 11 (D) 13

Q.21 A polyhedron has sixteen vertices and twenty four edges. How many faces does it have ?
(A) 12 (B) 10 (C) 11 (D) 13

Q.22 A polyhedron has seven vertices and ten faces. How many edges does it have ?
(A) 15 (B) 20 (C) 22 (D) 25

Q.23 A solid has forty faces, sixty edges. How many vertices does it have ?
(A) 15 (B) 20 (C) 22 (D) 25

Q.24 Which of the following is the number of faces of a hemisphere ?
(A) 1 (B) 2 (C) many (D) none of these

Q.25 Which of the following is a triangular pyramid having all faces as equilateral triangular ?
(A) Rectangular pyramid (B) Square pyramid
(C) Tetrahedron (D) None of these

Q.26 Which of the following is the number of vertices of sphere ?
(A) 0 (B) 1 (C) 2 (D) 4

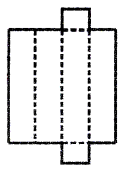
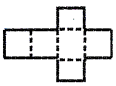
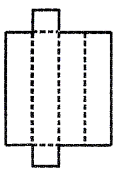
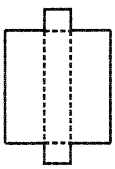
Q.27 Which of the following can be other name of a cylinder ?
(A) A triangular prism (B) A rectangular prism (C) A vertical prism (D) A circular prism

Q.28 If the base of a prism is a polygon of 'n' sides, then which of the following is the number of faces of the prism?
(A) n + 2 (B) n + 1 (C) n (D) n – 1

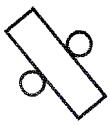
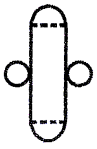
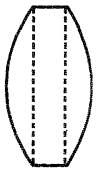
Q.29 Which of the following is the base of a tetrahedron ?
(A) a square (B) a rectangle (C) a square antiprism (D) a cuboctanedron

Q.30 Which of the following is the other name of a cube ?
(A) a tetrahedron (B) a regular hexahedron
(C) a squareantiprism (D) a cuboctanedron

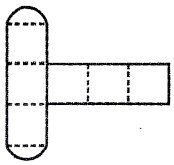
Q.31 Which of the following nets matches that of a cube ?

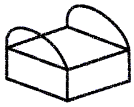
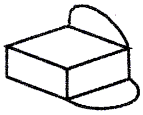
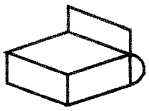
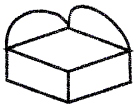
(A)  (B)  (C)  (D) 

Q.32 Which of these nets matches that of a cylinder ?

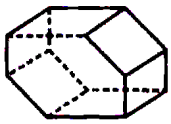
(A)  (B)  (C)  (D) 

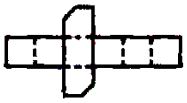
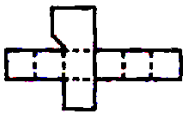
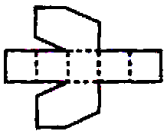
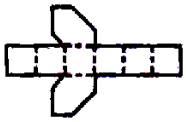
Q.33 Which of the following picture is the correct for the given net ?



(A)  (B)  (C)  (D) 

Q.34 Which of the following picture is the correct for the given net ?



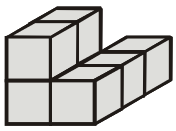
(A)  (B)  (C)  (D) 

Q.35 Which of the following solids has the least number of vertices ?
(A) Cone (B) Cylinder (C) Cube (D) Pyramid

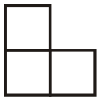
Q.36 Which of the following is a solid ?
(A) Triangle (B) Cone (C) Rhombus (D) Circle

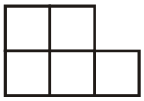
Q.37 How many faces a cube has ?
(A) 6 (B) 8 (C) 5 (D) 4

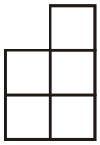
Q.38 Number of cubes in the adjoining figure :



(A) 9 (B) 10 (C) 7 (D) 8

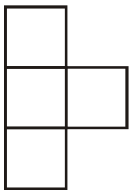
Q.39  is the _____ view of above solid.
(A) front (B) side (C) top

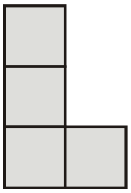
Q.40  is the _____ view of above solid.
(A) front (B) side (C) top

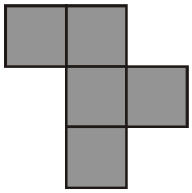
Q.41  is the _____ view of above solid.

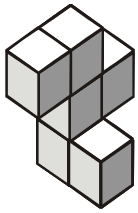
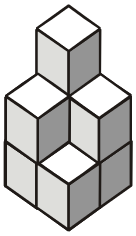
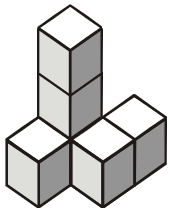
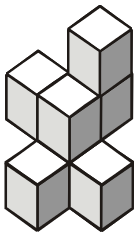
(A) front (B) side (C) top

Q.42 The given figure shows 3 different views of a three-dimensional figure constructed from cubes. Which could be the correct option? **[IMO-2016]**


Top


Front


Side

(A)  (B)  (C)  (D) 

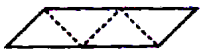
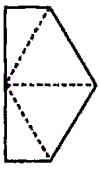
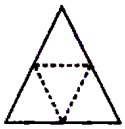
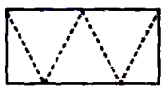
SECTION -C

➢ MORE THAN ONE CORRECT ANSWER

Q.1 Which of the following(s) represents the Euler's formula ?

(A) F + V – E = 2 (B) F + V = 2 + E (C) F + V – 2 = E (D) E + F = V

Q.2 Given below are 4 nets. Which of them is the correct net of an equilateral triangular pyramid ?

(A)  (B)  (C)  (D) 

SECTION -D

➢ MATCH THE COLUMN

Q.1 Match the following :

	Column A	**Column B**
(a)	Number of faces of a cuboid	(i) 2
(b)	Number of vertices in a tetrahedron	(ii) 6
(c)	Number of faces of a shape	(iii) 4
(d)	Number of faces of a hemisphere	(iv) 1