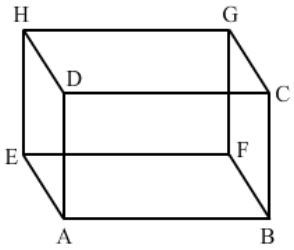
Three Dimensional Shapes Ex 19A

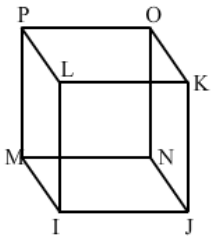
Q1.

Answer :

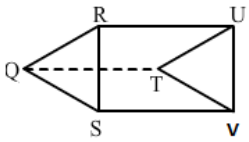
(i) A cuboid has 6 faces, namely *ABCD, EFGH, HDAE, GCBF, HDCG* and *EABF.*



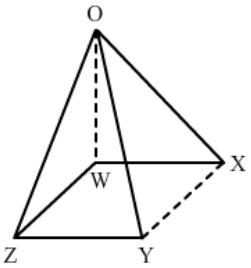
(ii) A cube has 6 faces, namely *IJKL, MNOP, PLIM, OKJN, LKOP* and *IJNM.*



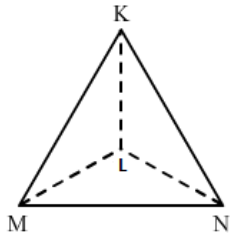
(iii) A triangular prism has 5 faces (3 rectangular faces and 2 triangular faces), namely *QRUT, QTVS, RUVS, QRS* and *TUV.*



(iv) A square pyramid has 5 faces (4 triangular faces and 1 square face), namely *OWZ, OWX, OXY, OYZ* and *WXYZ.*



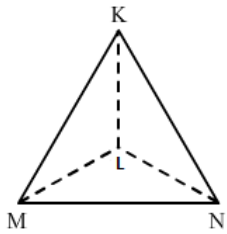
(v) A tetrahedron has 4 triangular faces, namely *KLM, KLN, LMN* and *KMN*.



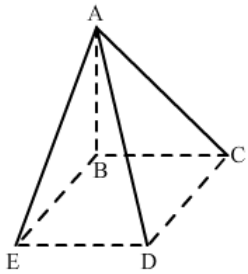
Q2.

Answer :

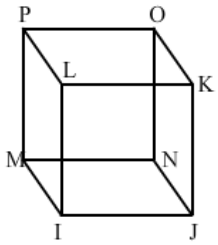
(i) A tetrahedron has 6 edges, namely *KL, LM, LN, MN, KN* and *KM*.



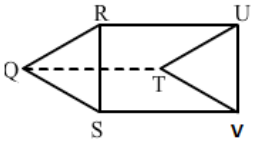
(ii) A rectangular pyramid has 8 edges, namely *AB, AE, AD, AC, EB, ED, DC* and *CB*.



(iii) A cube has 12 edges, namely *PL, LK, KO, OP, MN, NJ, JI, IM, PM, LI, ON* and *KJ*.



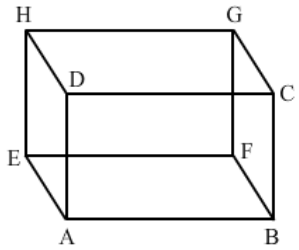
(iv) A triangular prism has 9 edges, namely *QR, RS, QS, TU, TV, UV, QT, RU*, and *SV*.



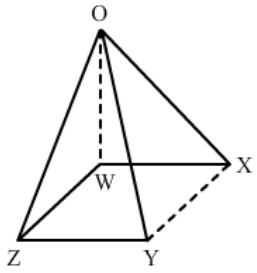
Q3.

Answer :

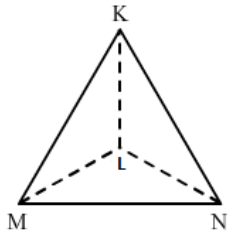
(i) A cuboid has 8 vertices, namely *A, B, C, D, E, F, G* and *H.*



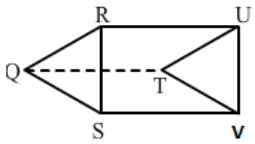
(ii) A square pyramid has 5 vertices, namely *O, W, X, Y* and *Z.*



(iii)A tertrahedron has 4 vertices, namely *K, L, M* and *N.*



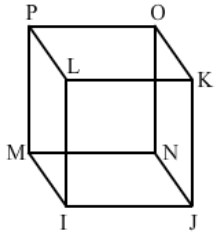
(iv) A triangular prism has 6 vertices, namely *Q, R, S, T, U* and *V.*



Q4.

Answer :

(i) A cube has 8 vertices, 12 edges and 6 faces.
Vertices: *I, J, K, L, M, N, O* and *P*
Edges : *IJ, JN, NM, MI, PL, LK, KO, OP, PM, LI, KJ,* and *ON*
Faces : *MNJI, POKL, PLIM, OKJN, PONM* and *LKJI*



(ii) The point at which the three faces of a figure meet is known as its vertex.
(iii) A cuboid is also known as a rectangular cube.
(iv) A triangular pyramid is called a tetrahedraon.