

- b. A sphere of weight 100N rests against a vertical wall as shown in Fig.Q.4(b). If the sphere is 100mm radius and the rope RS is 400mm length, find the minimum horizontal force 'P' necessary to move the sphere free from the wall. (04 Marks)

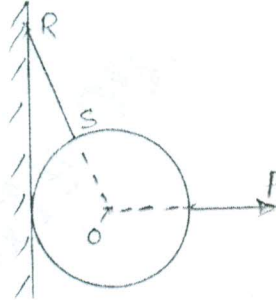


Fig.Q.4(b)

- c. Determine the value of W_1 and W_2 shown in Fig.Q.5(c) to keep BC horizontal. (04 Marks)

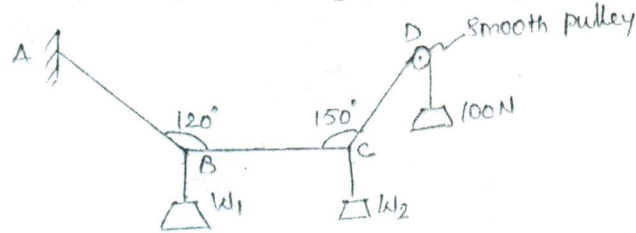


Fig.Q.5(c)

Module-3

- 5 a. State and prove Varignon's theorem. (08 Marks)
 b. Determine the support reactions at A and B for the beam shown in Fig.Q.5(b) (08 Marks)

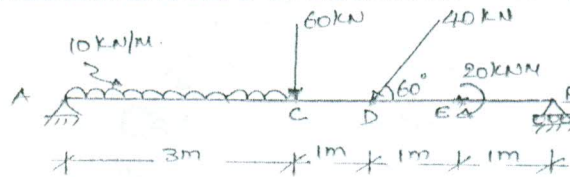


Fig.Q.5(b)

OR

- 6 a. Explain the different types of supports for beams. (08 Marks)
 b. Find the resultant of the system of coplanar forces acting on a lamina as shown in Fig.Q.6(b). Each square has a side of 10mm. (08 Marks)

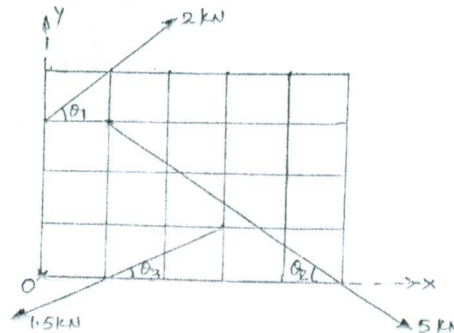


Fig.Q.6(b)

