SRI KRISHNA INSTITUTE OF TECHNOLOGY

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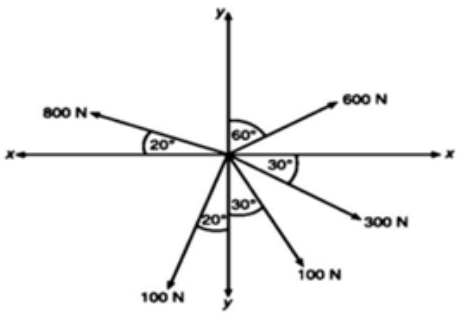
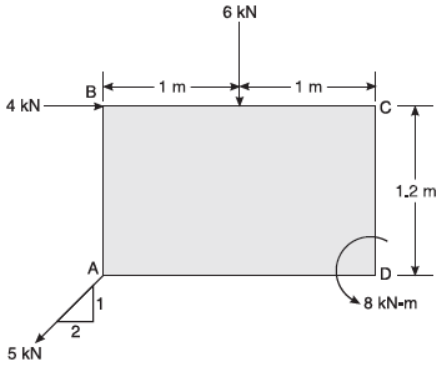
#29, Chimney Hills, Hesaraghatta Main Road, Chikkabanavara Post, Bengaluru- 560090

Department of Civil Engineering

Subject Name: Engineering Mechanics **Subject Code: BCIVC203**

SEM :DIV :B

Module-1 Question Bank

SL	Question	CO	Level	Marks
1	Define Force and Briefly Explain Classification of Force System	CO1	L2	10
2	Derive Law of parallelogram of forces	CO1	L2	10
3	State and prove Varignon's theorem.	CO1	L2	10
4	Determine the magnitude and direction of the resultant of the coplanar force system. shown in in Figure 	CO1	L3	10
5	Determine the magnitude, direction of the resultant force for the force system shown in Figure Locate the resultant force with respect to point D. 	CO1	L3	10

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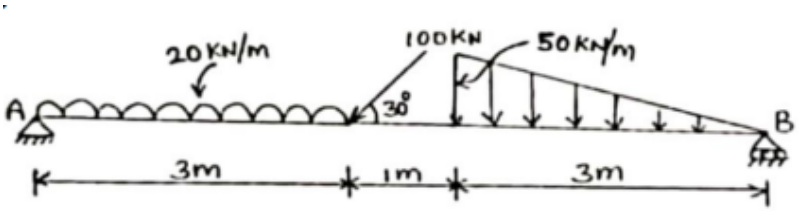
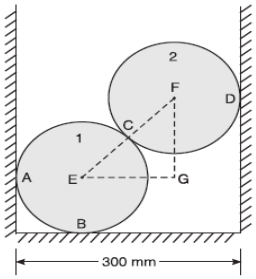
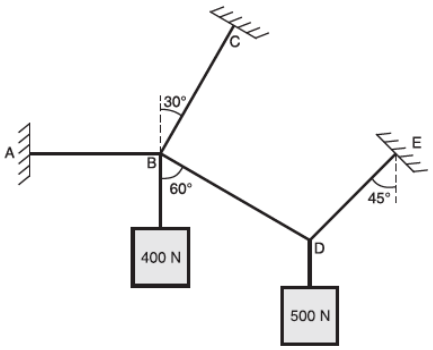
Module-2 Question Bank

SL	Question	CO	Level	Marks
1	Explain different types of Beams and loads with neat sketches.	CO2	L2	10
2	Determine the reactions at the supports for the beam shown in Figure 	CO2	L3	10
3	State and prove Lami's theorem and brief out the concept of free body diagram	CO2	L2	10
4	Two spheres each of radius 100 mm and weight 5 kN are in a rectangular box as shown in Figure Calculate the reactions at all the points of contact 	CO2	L3	10
5	The system of connected flexible cables shown in Figure 5.18 is supporting 2 loads of 400 N and 500 N at points B and D, respectively. Determine the tensions in the various segments of the cable. Figure 	CO2	L3	10

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Module-3 Question Bank

SL	Question	CO	Level	Marks
1	Outline the assumptions made in truss analysis.	CO3	L2	05
2	Classify the different types of trusses.	CO3	L2	05
3	Explain the different types of friction	CO3	L2	05
4	Outline the Analysis of Statically Determinate Trusses	CO3	L2	05
5	Briefly explain angle of friction and coefficient of friction	CO3	L2	05

Faculty Signature