

GUJARAT TECHNOLOGICAL UNIVERSITY
Diploma Architecture – SEMESTER – II • EXAMINATION – WINTER 2016

Subject Code: 3326205

Date: 23/11/ 2016

Subject Name: Structure I

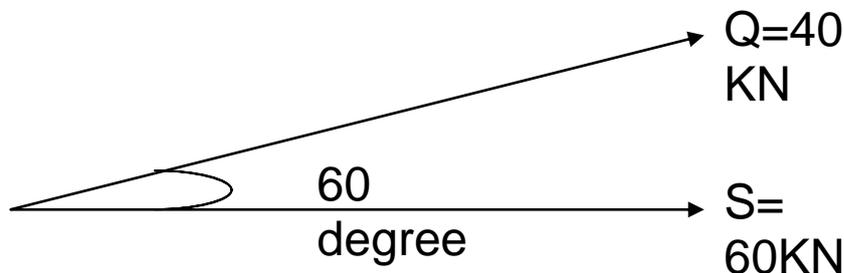
Time: 02:30 PM TO 04:30 PM

Total Marks: 50

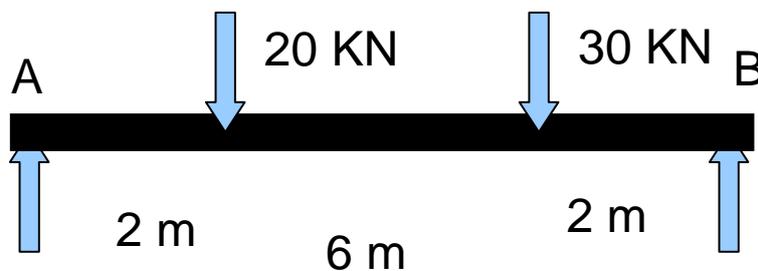
Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Use of programmable & Communication aids are strictly prohibited.
5. Use of only simple calculator is permitted in Mathematics.
6. English version is authentic.

- Q.1** (a) Describe Force system for a given body. **05**
 (b) Two forces, Q and S are acting on a bolt as shown in figure 1. Find the resultant in terms of magnitude and direction. **05**



- Q.2** (a) Difference between Moment and couple. **05**
 (b) Describe type of support and loads. **05**
Q.3 (a) **10**



Calculate Reaction for the beam for A and B. and also Draw SF and BM diagrams.

- (b) Define stress at a point and also elaborate tensile and compressive stress. **05**
Q.4 (a) Describe types of truss. **05**
 (b) Enlist all principles and describe law of parallelogram of forces. **05**
 (c) Methods of analysis for the truss. **05**