GUJARAT TECHNOLOGICAL UNIVERSITY

B.ARCH. - SEMESTER-I EXAMINATION - WINTER 2015

Subject Code: 1015004 Date:19/12/2015

Subject Name: Structure - 1

Time: 10:30am to 12:30pm Total Marks: 50

Instructions:

- 1. Attempt all questions.
- 2. Make suitable assumptions wherever necessary.
- 3. Figures to the right indicate full marks.
- Q.1 (A) Prove law of parallelogram.

05

05

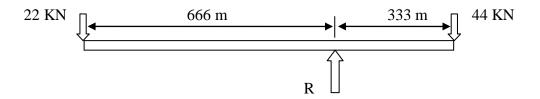
(B) Establish sine rule for forces.

05

(C) Importance of Structures in Architecture.

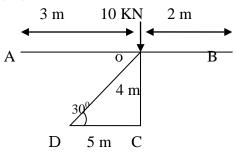
05

Q.2 (A) Find Reaction R from the following figure.



(B) Find the moment at A, B, C, D.

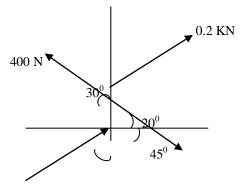
10



OR

(B) Find the magnitude of resultant and its direction.

10



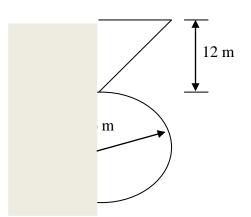
0.3 KN 500 N

PTO

10

10

Q.3 (A) Find CG of the following Figure.



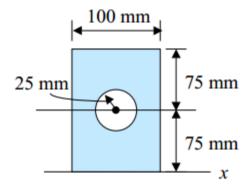
(B) Find Reactions and Tensions.

20 KN/m

T 600
T

OR

Q.3 (A) Find MI of the following Figure.



(B) Find Reactions. 10

