

S.No. : 1

AR 103

No. of Printed Pages : 03

Following Paper ID and Roll No. to be filled in your Answer Book.

PAPER ID : 0103

Roll
No.

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

B. Arch. Examination 2019-20

(Odd Semester)

ARCHITECTURAL STRUCTURES - I

Time : Three Hours

[Maximum Marks : 50

Note :- (i) Question No. 1 is compulsory. Attempt any four question out of remaining five question.

(ii) Credit shall be given to neat drawings.

(iii) Be precise in your answer.

1. Attempt all parts of the following : $2 \times 5 = 10$

(a) If eccentric load is applied at any section, what will be its effect

(b) Poission's ratio is

(c) Shape of B. M. D. is triangle for load.

[P. T. O.]

- (d) Shear force is maximum at end in
beam.
- (e) Coplanar con-current force system means
.....

2. Attempt any two parts of the following : $2 \times 5 = 10$

- (a) Find C. G. of tabular section.
- (b) What do you mean by Elastic Materials?
- (c) Discuss how you will calculate M. O. I by first principle?

3. Attempt any two parts of the following : $2 \times 5 = 10$

- (a) Explain Hook's law for mild steel.
- (b) Explain Lami's theorem. How the temperature stresses are introduced in any structure?
- (c) For the fixed support, what are the number of support reactions?

4. Attempt any one part of the following : $10 \times 1 = 10$

- (a) Find resultant at point A and define force system :



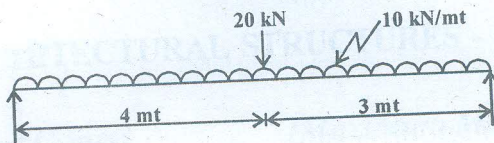
- (b) Find the theorem of couples.

5. Attempt any one part of the following : $10 \times 1 = 10$

(a) What are the various conditions of equilibrium for any structure?

(b) What is perpendicular axis theorem.

6. Draw the S. F. D. and B. M. D. diagram of following beam : 10



⌘⌘⌘