

AV – 2729

Fourth Semester B. Arch. (CGS) Examination

BUILDING MATERIALS AND CONSTRUCTION – III

Paper – 04 AR 02

(USC – 10029)

P. Pages : 2

Time : Four Hours]

[Max. Marks : 80

- Note :** (1) All questions carry marks as indicated.
(2) Answer **Four** questions.
(3) Question No. **One** and **Three** is compulsory.
(4) Due credit will be given to neatness and adequate dimensions.
(5) Illustrate your answer wherever necessary with the help of neat sketches.
(6) Use pen of Blue/Black ink/refill only for writing the answer book.

1. (a) Design a mild steel fully glazed casement window for a Drawing hall having dimension 1.80 M x 1.20 M. Use proper transom and mullion for a meeting shutter. Draw to a suitable scale plan, Elevation Section and important details to an enlarged scale ? 15
(b) State the various uses of steel. 5

OR

2. (a) Describe the ferrous and non – ferrous metals. 6
(b) Describe with neat sketches the various types of mild steel doors used in building industries. 8
(c) What are steel ventilators ? How they are classified ? 6

3. Design and Draw to a suitable scale plan, Elevation section and important fixing details to an enlarged scale of a metal partition for an Architect cabin having dimension 4.0 M x 8.50 M. Design a partition in a given space in such a way that it will divide the space in two parts, one of them act as a Architect cabin and remaining area is used as a waiting space, locate door in the partition for easy circulation. (Assume suitable dimension of door and M. S. Section wherever necessary) 20

AV-2729

P.T.O.

4. Describe with neat sketches any **Four** of the following :—

- (1) Manufacturing of steel by cupola furnace
- (2) Architectural uses of plastic.
- (3) Distinguish between cast iron and wrought iron
- (4) Manufacturing process of glass
- (5) Process involved in the fabrication of plastic articles.
- (6) Advantages of steel construction
- (7) Various treatment for glass
- (8) Market Firms of steel. 20

5. (a) Distinguish between mild steel casement window and Aluminium sliding window state their merits and demerits. 7

- (b) Design and Draw to a suitable scale plan Elevation section and important fixing details of a mild steel Rolling shutter door for a ware – House having dimension — 2.00 M x 2.50 M (Assume suitable dimensions wherever necessary) 13

6. Solve any **Three** of the following :—

- (a) State the general properties of plastic
- (b) Manufacturing of pig – iron by blast furnace
- (c) Describe the various uses of laminates in interior
- (d) State the different varieties of glass available in market explain any two of them.
- (e) Anti corrosive treatment for steel. 20

