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B.Arch. Fourth Semester (Architecture) (CGS)

10029: Building Materials and Construction - III: Paper - 04 AR 02

AU - 2613 P. Pages: 2 Max. Marks: 80 Time: Four Hours Notes: All question carry as indicated marks. Answer Four question. 2. 3. Question No. 1 & 3 is compulsory. 4. Due credit will be given to neatness and adequate dimensions. Illustrate your answer necessary with the help of neat sketches. 5. Use of pen Blue/Black ink/refill only for writing the answer book. 6. 1. Design a fully glazed six Shutter steel casement window for a class room. The width of 20 window is 2.00 M and height is 1.20M. Use proper transom and mullion for a meeting Shutter and Draw to a suitable scale plan, Elevation section and important fixing details to an enlarged scale? Describe with neat sketches the various market form of steel? State the anticorrosive 2. a) 7 treatment to steel? Distinguish between cast iron and wrought iron. b) 6 7 c) What are different types of glasses available in market? Explain any two of them? 3. Design a mild steel partly glazed and partly paneled partition for a manager cabin. The space 20 available is 3,60m x 8.0 m. Provide a partition in a given space in such a way that the partition will divide the space in two parts one of them will be manager cabin and remaining space will be for waiting, Locate the position of door in a partition and Draw to a suitable scale key plan, Sectional plan, Elevation, Section and important Fixing details to an enlarged scale (Assume suitable dimension for door opening and height of partition). 4. Describe with neat sketches any four of the following. 20 Different varieties of steel ventilators. Construction methods of Aluminium section sliding Doors and windows and their ii) advantages. Structural plastic and reinforced plastic. iv) What are "Glass block" Safety glass. v) vi) Plastic product for roof and partition. vii) Advantages of steel construction.

viii) Ferrous and non ferrous metal.

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- 5. a) Describe with neat sketches the construction method, advantages and disadvantages of a steel Revolving door?
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 - b) Design a Rolling steel shutter door for a work-shop the width of R.S. door is 2.00M and height is 2.50M. Draw to a suitable scale plan, elevation, section and important fixing details to an enlarged scale?
- 6. Solve any three of the following.
 - a) Manufacturing of Pig iron by blast furnace.
 - b) The construction of mild steel collapsible door their merits and demerits.
 - c) Describe the various uses of Laminates in interior.
 - d) Explain the various process involved in the fabrication of plastic articles.
 - e) Various uses of glass in building industry.

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