



Seat No. _____

HAF-161001010502

B. Architecture (Sem. III) Examination

May - 2023

Building Material & Construction - V

Time : 2 Hours / Total Marks : 50

1 Explain the followings with examples : (any 5) 15

- (1) Thermosetting Plastics and Thermoplastics.
- (2) Cast Iron and Wrought Iron.
- (3) Laminated Glass and Toughened Glass.
- (4) Solar Reflective Glass and Tinted Glass.
- (5) Aluminum and Stainless Steel.
- (6) Synthetic Fiber and Natural Fiber.
- (7) Enamel Paint and Emulsion Paint.
- (8) Cement Paint and Anti-Corrosive Paint.

2 Draw with the neat diagrams : (any 3) 15

- (1) Details of M.S. Safety Grill in the Window.
- (2) Lattice Column and Battened Column.
- (3) Bolted Connection Steel column with I-Beam.
- (4) Connection of Tread and riser with glass Railing.
- (5) Fixing of Glass railing in the Balcony.

3 Explain with neat sketches and appropriate details, in suitable scale : 10

Fixing of Stainless steel hand rail with Glass panels without any vertical posts to a Cantilever porch of a residential building.

OR

Glass door with fixed glass partition separating office space.

4 Multiple Choice : (any 10)

10

(1) Metallic alloy, compared to their pure metal components is _____.

(more corrosion resistant / having higher melting point /
having lower hardness / reactivity and fusibility / having
lower electrical conductivity)

(2) Cast iron is _____.

(shock resisting / brittle / having compressive strength
more than its tensile strength / all)

(3) _____ is helpful to increase the depth of hardness in
steel.

(Vanadium / Tungsten / Sulphur / Chromium)

(4) _____ provides ductility to aluminum alloy.

(Zinc / Tin / Iron /Copper)

(5) _____ fibers is used for making parachutes.

(Rayon / Nylon / Polyester / All of them)

(6) Paint normally consists of _____ components.

(3 / 4 / 5 / 6)

(7) _____ paint is cheaper.

(Plastic / Enamel / Distemper / Acrylic)

(8) _____ is used for making gunny bags.

(Wool / Jute / Flax / Cotton)

(9) _____ is not a natural fiber.

(Wool / Nylon / Flax / Cotton)

(10) Epoxy adhesives are used in the manufacturing of
_____.

(Plywood / Plastic / Fabric / Glass)

(11) _____ glue is used to join light metal.

(Rubber / PVC / Metal / Araldite)

- (12) _____ glass is ideal for skylight.
(Tempered / Float / Laminated / Wired)
- (13) Bolts are most suitable to carry _____.
(Shear / Bending / Axial Tension / Shear and Bending)
- (14) _____ is best arrangement to provide unified behavior and axial compression in built-up steel column.
(Lacing / Battening / Tie-plates / All of them)
- (15) _____ is the correct statement amongst all.
- (1) Riveting is less noisy than bolting.
 - (2) Material cost of a rivet is higher than that of a bolt.
 - (3) Tensile strength of a bolt is lesser than that of a rivet.
 - (4) Bolts are used as temporary fastening but rivet are used as permanent fastening.
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