



**DBX-1901390201020400** Seat No. \_\_\_\_\_

**First Year B. A. (ID)(Sem. II) Examination**

**July - 2022**

**Materials & Construction - II**

Time : 3 Hours]

[Total Marks : 50

**Instructions :**

- (1) All questions are compulsory.
- (2) Any ambiguity will be considered as a wrong answer.

1 (a) Choose the correct answer: 5

- (1) The most common type of door is \_\_\_\_\_.
  - (a) Double swing door
  - (b) Louvred door
  - (c) Single swing door
  - (d) Battened door
- (2) \_\_\_\_\_ arches can be constructed in rubble masonry or ashlar masonry.
  - (a) Stone arches
  - (b) Wooden arches
  - (c) Brick arches
  - (d) Concrete arches
- (3) Which of the following roofs slopes in two directions?
  - (a) lean-to-roof
  - (b) Gable roof
  - (c) Hip roof
  - (d) Mansard roof
- (4) The \_\_\_\_\_ stairs are useful where the space available is limited and where the traffic is less.
  - (a) Straight
  - (b) Turning
  - (c) Spiral
  - (d) Geometrical

(5) In \_\_\_\_\_ windows, the shutters are allowed to swing around the pivot.

- (a) Swing
- (b) Sliding
- (c) Pivoted
- (d) Glazed

(b) Mark the following true or false : 5

- (1) Aluminum is an example of ferrous metals.
- (2) Plywood is made of face veneer, coarse veneer and synthetic resins.
- (3) Shape, size, finish, color are mechanical properties of metals.
- (4) In semicircular arch rise is same of the span.
- (5) Lean to roof is considered suitable for a maximum span of 2.4 meters.

2 Write the short note of following : (any two) 10

- (1) Write short note on light weight concrete.
- (2) Write short notes on veneer.
- (3) Explain types of floor tiles.
- (4) Write short notes on laminates.

3 Design a stair for residence of following quarter turn stair 15  
with height is 3.0 meters from floor finish to floor finish and flight width is 1.2 meters. Dimension of space-is 6.0 mts x 3.0 mts. (Scale-1:20). Draw the plan and elevation for same. Stair should be with handrail and baluster.

OR

Design a stair for residence of following dogleg stair with semicircular landing (diameter 2.4 meters) height is 3.0 meters from floor finish to floor finish and flight width is 1.2 meters. Dimension of space is 5.0 mts x 2.5 mts. (Scale -1:20). Draw the plan and elevation for same. Stair should be with handrail and baluster.

- 4 Design a Panel door for office. The dimension of opening is  $1.2 \text{ m} \times 2.1 \text{ m}$ . Consider wall thickness is 0.23 mts. (Scale -1:20). Material for door shall be combination of wood and glass. Draw the plan and elevation for same. **15**

**OR**

Design a casement window for Residence. The dimension of opening is  $0.75 \text{ mts} \times 1.2 \text{ mts}$ . Consider wall thickness is 0.23 mts. (Scale -1:10). Material for window shall combination of wood and glass. Draw the plan and elevation for same.

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