



**MBT-1601390101021000** Seat No. \_\_\_\_\_

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

**April / May- 2018**

**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) Fill in the blanks : 5

- (1) Column is theoretically \_\_\_\_\_ member.  
(compressive, tensile)
- (2) In simply supported beam bending is \_\_\_\_\_  
at the center and \_\_\_\_\_ at the end.  
(maximum, minimum, zero)
- (3) Hardness of a material \_\_\_\_\_ on heating.  
(Reduces, Increases)
- (4) Medium carbon steels are \_\_\_\_\_  
(Toughest, Softest)
- (5) \_\_\_\_\_ of a material refers to its stiffness in  
the elastic range.  
(Modulus of Elasticity, Tensile strength)

(b) Mark the following true or false : 5

- (1) Phenol formaldehyde is an example of non-ferrous metals.
- (2) British standards are used for grading marine ply.
- (3) Plywood is made of face veneer, coarse veneer and synthetic resins.
- (4) Non-metals like Iodine and Graphite have also a Metallic luster.
- (5) Flexi ply is widely used in the construction of bridges and high rise buildings.

- 2** Describe the following : (any **two**) **10**
- (1) Which are the wooden products available in market for interior work ? Where are these product used ?
  - (2) Explain different types of paints and varnishes
  - (3) Types of doors and windows.
- 3** Write the short note of the following : (any **two**) **10**
- (1) Write name of different types of roof and draw the sketches.
  - (2) Describe the mechanical properties of metal.
  - (3) Describe the terms of stair with help of sketches.
- 4** Design a stair for a Community Hall. The dimension of the space is 4.5m (L), 3.5m (B), 3.6m (H). Scale of the drawing is 1:20. Draw plan and elevation of the stair. Minimum flight width is 1.2m and minimum landing width is 1.2m. Stair should be with handrail and baluster. **10**

**OR**

- 4** Design a door for a Community Hall. The dimension of the door is 1500mm × 2100mm. Consider wall thickness 230mm. Scale of the drawing is 1:20. Draw plan and elevation of the door. **10**
- 5** Draw the details of the Q.4 (minimum 4 details) scale 1 : 5 or 1 : 2. **10**
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