

Total no. of printed pages = 2

CT-301/CM/3rd SEM/2021

## CONSTRUCTION MATERIALS

FULL MARKS – 70

PASS MARKS – 28

TIME – THREE HOURS

The figure in the margin indicate full marks for the questions



1 x 25 = 25

- 1 **Answer the following questions.**
- I. IS classification of bricks is based on  
(1) compressive strength  
(2) water absorption  
(3) dimensional tolerance, of the above  
(a) only (1) is correct (b) (1) and (2) are correct  
(c) (1) and (3) are correct (d) All are correct
- II. Efflorescence occurs in brick is due to the presence of  
(a) due to the presence of soluble salts (b) high porosity of bricks present in clay for making bricks  
(c) high silt content in brick earth (d) excessive burning of bricks
- III. A good brick when immersed in water bath for 24 hours, should not absorb water more than  
(a) 20% of its dry weight (b) 15% of its saturated weight  
(c) 10% of its saturated weight (d) 20% of its saturated weight
- IV. The innermost part of the tree is known as \_\_\_\_\_
- V. The age of the tree can be predicted by  
(a) length of medullary rays (b) counting number of rings  
(c) by measuring the diameter of stem (d) by the thickness of bark
- VI. Seasoning of timber is required to  
(a) soften the timber (b) harden the timber  
(c) straighten the timber (d) remove sap from the timber
- VII. Odd number of veneers are required to manufacture plywood. True/False
- VIII. Cracks that are caused on the exterior surface of the stem by shrinkage due to weathering effect is known as \_\_\_\_\_
- IX. The reaction between cement and water is known as \_\_\_\_\_
- X. Quick lime coming out of kiln is also known as  
(a) hydrated lime (b) lump lime  
(c) fat lime (d) hydraulic lime
- XI. Lime that sets on absorbing  $\text{CO}_2$  from atmosphere is  
(a) lean lime (b) feebly hydraulic lime  
(c) rich lime (d) fat lime
- XII. The crudest form of iron is  
(a) mild steel (b) pig iron  
(c) wrought iron (d) cast iron
- XIII. Cement paint can be applied on any surface. True/False
- XIV. The accelerator added for the fusion of glass is  
(a) soda (b) silica  
(c) lime (d) nikel
- XV. Plastics are examples of

- (a) ceramic materials (b) polymeric materials  
(c) anhydrides (d) elastomers
- XVI. Which of the following is not an example of thermoplastic?  
(a) polyethylene (b) nylon  
(c) PVC (d) bakelite
- XVII. Polyvinyl chlorides is an example of thermosetting plastic. True/False
- XVIII. Hydraulic lime is obtained by  
(a) Burning of kankar (b) Burning of lime stone  
(c) Adding water to quick lime (d) All of the above
- XIX. The function of base in paint is to make the paint film opaque. True/False
- XX. In paints, pigment is added for  
(a) Shining surface (b) Colour  
(c) Smoothing the surface (d) Easy drying
- XXI. The decay of timber caused by alternate wetting and drying is called  
(a) Dry rot (b) Wet rot  
(c) Foxiness (d) Dottiness
- XXII. Due to the presence of oil/grease on the surface, the paint film swells and this type of defect is known as \_\_\_\_\_
- XXIII. In PPC cement, PPC stands for \_\_\_\_\_
- XXIV. Cast iron can neither be riveted nor be welded. True/False
- XXV. The process of mixing quick lime with water is known as \_\_\_\_\_

**From Question 2 to 6 Answer Any Four**

- 2 (a) Write on classification of rocks and explain each of them. 07  
(b) What is boro-silicate glass? 03
- 3 (a) What are the various processes involved in manufacture of lime? 05  
(b) What are the characteristics of good timber? 05
- 4 (a) What are the characteristics of a good paint? 06  
(b) Write down the properties of cast-iron. 04
- 5 (a) With the help of flow chart explain manufacture of cement by wet process. 08  
(b) What is star shake in timber? 02
- 6 (a) What are the good engineering properties of burnt clay bricks? 07  
(b) Define: (i) Tar and (ii) Bitumen 03

**Answer Question No. 7 Compulsorily**

- 7 Write note on any one of the following: 05  
(a) Sheet glass  
(b) Distemper

