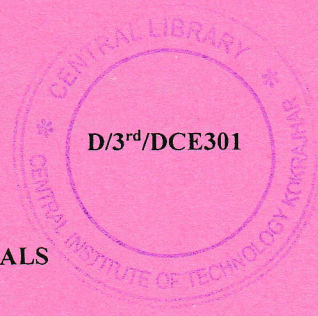


Total number of printed pages:2



D/3<sup>rd</sup>/DCE301

2021

**CONSTRUCTION MATERIALS**

Full Marks: 100

Time: Three hours

*The figures in the margin indicate full marks for the questions.*

*Answer any five questions.*

- |    |     |  |    |
|----|-----|--|----|
| 1. | (a) | How rocks are classified and explain each of them in details.  | 09 |
|    | (b) | Define: (i) Quarrying and (ii) Mining  | 04 |
|    | (c) | Define dressing of stone and write the objectives of dressing of stones.   | 07 |
| 2. | (a) | Explain the various processes involved in manufacture of lime?   | 09 |
|    | (b) | What are the general characteristics of lime?  | 05 |
|    | (c) | What is hydraulic lime and how hydraulic lime is classified?   | 06 |
| 3. | (a) | What are the good engineering properties of burnt clay bricks?   | 12 |
|    | (b) | Explain the process of manufacture of burnt clay bricks?   | 08 |
| 4. | (a) | With the help of flow chart, explain the process of manufacture of cement by dry process.                                      | 10 |
|    | (b) | What are the good properties cement mortar?  | 06 |
|    | (c) | What is the difference between OPC and PPC cement?   | 04 |
| 5. | (a) | What are the characteristics of good timber?   | 08 |
|    | (b) | What is seasoning of timber are what are its objectives?   | 06 |
|    | (c) | With a neat sketch, explain the following defects in timber:<br>(i) Star shakes (ii) Cup or ring shakes and (iii) Heart shakes | 06 |
| 6. | (a) | What are the characteristics of an ideal paint?  | 06 |
|    | (b) | What is varnish and list out the different types of varnishes?   | 06 |
|    | (c) | List out the defects noticed after painting and explain any two of them.   | 08 |
| 7. | (a) | What is tar and list out the different types of tar?   | 04 |
|    | (b) | What is glass and name the constituents used in manufacture of glass.  | 04 |

- (c) What is plastic and explain the different types of plastics?
- (d) Define: (i) Pig iron (ii) Cast iron and (iii) Wrought iron

06

06

