

CBSGS

80 Marks

3 Hours

N. B. 1. Question no. 1 **compulsory**.

2. Answer any three questions out of remaining
3. Assume any data, if required and state them clearly
4. Attempt sub questions in order
5. Illustrate answer with neat sketches wherever required
6. Figures to the right indicate full marks.

1 Write short notes on any four :- [20]

- a) Load Bearing and Frame Structure
- b) Grades of cement
- c) Properties of construction materials
- d) Pointing
- e) Water Proofing materials

2. a) Explain under reamed pile foundation with neat sketch. [5]
b) Explain manufacturing process of clay bricks [10]
c) Give the details of $2\frac{1}{2}$ wall constructed in Double Flemish Bond [5]
3. (a) Mention the experiments performed in laboratory on tiles and cement? Explain any one experiment (either of tile or of cement) in detail. [7]
(b) Compare paints & varnishes. [5]
(c) Enumerate (any ten) ferrous and non ferrous metals and alloys used in construction Explain the use of aluminium and steel as construction materials [08]
4. (a) List out the various types of glasses and state their properties & uses in construction. [7]
(b) What is form-work? Which are the forces acting on form-work? [5]
(c) Explain the defects in timber with neat sketches [8]
5. (a) Sketch the cross-section of lean to roof truss and name the various members in it. [6]
(b) Explain the field tests performed to find the quality of any two construction materials [6]
(c) Sketch the cross-sections and elevations of: [8]
(i) Needle or cantilever scaffolding (ii) Un-coursed Random Rubble Masonry.
6. (a) Define sound insulation. Explain acoustical defects [8]
(b) Write short notes on (any three): [12]
(i) Plastering
(ii) Ventilation
(iii) Flooring materials.
(iv) Hydraulic Lime