

(3 Hours)

[Total Marks:80]

- Note:-
1. Question no. 1 compulsory.
 2. Answer any three questions out of remaining
 3. If required, assume data but state them clearly
 4. Attempt sub questions in order
 5. Illustrate with neat sketches wherever required
 6. Figures to right indicate full marks.

- 1 (a) You are the site in-charge of a quarry, where blasting operation is to be carried out as a pre-requisite for removing stones. Formulate a list of instructions to be given, while dealing with explosives; to your supervisors, labours and public in proximity of the site. [8]
(b) Enlist the ideal requirements of a formwork. Discuss slip form-work. [6]
(c) Define building. Explain the functions of foundation. [6]
- 2 (a) Explain with neat sketches:
(i) Under-reamed pile foundation. [3]
(ii) Flemish bond. [3]
(b) Write short notes on:
(i) Uses of non-ferrous alloys in construction. [4]
(ii) Form-work for beam. [4]
(c) Enlist various materials used for damp-proofing. Discuss methods of water proofing. [6]
- 3 (a) State functional requirements of flooring. State four market names of flooring tiles. [6]
(b) Write short notes on:
(i) Prevention of accidents on site [4]
(ii) Storage of materials at site. [4]
(c) Write down the ideal requirements of a scaffold. Explain any one type of scaffolding in detail. [6]
- 4 (a) Define seasoning of timber. Explain, with neat sketches, defects in timber. [8]
(b) Write short notes on:
(i) Design and materials used to overcome Acoustical Defects. [4]
(ii) Glass fibre reinforced Plastics. [4]
(iii) Construction requirement in Air Conditioning systems. [4]
- 5 (a) Write down engineering properties of:
(i) Glass [3]
(ii) Ceramic products [2]
(iii) POP [2]
(b) Explain the following with neat sketches
(i) Beaded pointing [2]
(ii) Queen-post truss [5]
(iii) Dots and screeds in plastering [4]
(iv) Blistering. [2]
- 6 (a) Write what you mean by dressing of stones? Explain with neat sketch "Reticulated Finish" [6]
(b) You are the building materials supervisor of a mass housing project. Discuss, in brief, various field tests you will perform to investigate the desirable qualities of basic materials which are being supplied to your site. [9]
(c) Compare hollow and solid concrete blocks w.r.t size, shape, laying and suitability. [5]