

- 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. Explain with sketches (any **four** questions)
- a Combine footing [5M]  
 b King closer, queen closer and bevelled closer [5M]  
 c Putlog Scaffolding [5M]  
 d Stone finishes (any three) [5M]  
 e Load Bearing Structure [5M]
2. a Differentiate between [8M]  
 i) Plastering and Painting  
 ii) Damp proofing and water proofing  
 b Explain jack arch floors? [6M]  
 c Mention the experiments performed in laboratory on tiles and cement? Explain field test performed on brick to check the quality of brick at site. [6M]
3. a What is form-work? Explain the advantages of steel formwork over timber formwork? [4M]  
 b Sketch the cross-sections and elevations of: [8M]  
 (i)  $2^{1/2}$  Single Flemish bond  
 (ii) Random Rubble Masonry.  
 c What do you mean by seasoning of timber? Explain the defects in timber caused due to external natural forces with neat sketches? [8M]
4. a List out the various types of glasses and state their uses in construction? [8M]  
 b Explain briefly manufacturing process of brick? [6M]  
 c Sketch the cross-section of Queen post roof truss and name the various members in it? [6M]
5. a Explain the properties of hydraulic lime? [4M]  
 b What is Plaster of Paris? Explain the properties of Plaster of Paris. [4M]  
 c Explain the use of aluminium and steel as construction materials. [6M]  
 d Enumerate the methods of preservation of timber and explain the method of preservation of stones? [6M]
6. a Define sound insulation. What is the unit of measurement of sound? Explain acoustical defects. [8M]  
 b Write short notes on: [12]  
 (i) Plastering (ii) Ventilation (iii) Flooring materials.