



Low Cost Housing (1100)

P. Pages : 2

Time : Three Hours

Max. Marks : 100

Instructions to Candidates :

1. Do not write anything on question paper except Seat No.
 2. Answer sheet should be written with blue ink only. Graph or diagram should be drawn with the same pen being used for writing paper or black HB pencil.
 3. Students should note, no supplement will be provided.
 4. Attempt **any five** questions.
 5. Answer should be written in the same answer book.
 6. Illustrate your answer with suitable sketches.
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1. a) Discuss the role of developers in urban low cost housing development scheme. 7
 - b) What do you understand by planned development & explain the concept & features of low cost housing need in India. 7
 - c) Explain the role of housing & housing needs as described by National urban housing & habitat policy 2007. 6
 2. a) Explain in detail any two ad - hoc methods of cost reduction in Low cost housing. Enlist the methods for cost reduction. 10
 - b) Explain slum development scenario in India. Discuss the constraints in upgradation of slum in India. 10
 3. a) Explain the role of construction material, resulting in low cost housing & List out the various construction materials. What percentage cost reduction can be achieved by utilization of such material. 8
 - b) Discuss manufacturing process of fly ash brick & compare the advantages of fly ash brick over conventional bricks. 6
 - c) What is compressed stabilized earth block? Discuss the suitability of a particular stabilizer for a given type of soil. 6
 - 4 a) Explain in detail low cost & alternative construction material. 6
 - b) Discuss the initiative by state & central government towards housing development for poor. Explain Indira Awas Yojana. 8

- c) Explain Autoclaved cellular concrete & its application. Discuss how Autoclaved cellular concrete produced. **6**
5. a) Explain the physical & chemical properties of silica fume & discuss the effect of mixing silica fume on Mechanical property & ductility of concrete mix. **8**
- b) Explain the constituent, composite properties & construction of ferrocement structure. What are the advantages & disadvantages of such structure. **8**
- c) Explain in brief reuse & recycling of aggregate. **4**
6. a) Describe the process of recycling of concrete & what are the application of processed & un processed recycled material. **8**
- b) What is demolition waste & explain remodeling local & debris load. What are the different material available as a part of demolition waste. **8**
- c) Explain the conversion of waste biomass to materials of use in construction. **4**
7. a) Discuss the need of prefab housing in India & reasons for their slow growth. **6**
- b) Discuss the need of low cost technology in water supply & explain the application of Rainwater Harvesting & supply. **8**
- c) Explain low cost technology for a ferrocement 2 pit Latrine. **6**
8. a) What is Retrofitting & explain the difference between repair & retrofitting. Explain the necessity & scope of retrofitting. **6**
- b) What are the different factor affecting structural damage of building due to earthquake? Explain. **8**
- i) Strength of building
- ii) Ductility in context to structural damage of building.
- c) Explain the different repair material for damage, Repair works of a building. Discuss the use of epoxy resins & mortar for repair work of building. **6**
