

B.Arch. Fifth Semester (Architecture) (CGS)
10037 : Building Materials & Construction - V : 5 AR 01

P. Pages : 1

Time : Four Hours



AV - 2809

Max. Marks : 80

- Notes :
1. Question No. 1 is compulsory.
 2. Due credit will be given to neatness and adequate dimensions.
 3. Assume suitable data wherever necessary.
 4. Illustrate your answer necessary with the help of neat sketches.
 5. Use of pen Blue/Black ink/refill only for writing the answer book.

1. Draw slab reinforcement details for a room having clear size 3.0x6.0m supported on beam of 230x300mm.
 - i) Key plan with column positions. 5
 - ii) Sectional elevation showing reinforcement details along with beam reinforcement. 5
 - iii) Reinforcement details in plan at suitable scale. 10
2. What is ready-mix concrete? Explain the process of manufacturing of ready mix concrete. Also write its merit over ordinary concrete. 20

OR

3. Enlist various types of special concrete. Elaborate any three of them in detail. 20
4. Write short notes on 20
 - i) Grillage foundation.
 - ii) Combined footing.
 - iii) Raft foundation.
 - iv) Eccentric Footing.

OR

5. Design a R.C.C. Chajja for a window opening 1.2x1.2m. Assume suitable data wherever necessary. 20
 - i) Plan with reinforcement details showing Chajja & Beam.
 - ii) Sectional details of Chajja & beam.
6. Explain various components of 'Flat slab' with neat sketches. Also discuss merits & demerits of flat slab. 20

OR

7. A low income group family wants to build a house with cost effective materials & Technology to conserve energy. Suggest materials & techniques for the same with neat sketches. 20
