



COLLEGE OF TECHNOLOGY AND ENGINEERING

DEPARTMENT OF CIVIL ENGINEERING
2 YEAR BE I SEMESTER SESSION 2015-16

1. Course Code : **CE 213**
2. Course Title : **BUILDING CONSTRUCTION**
3. Credit : 4(3+1)
4. Theory Lecture Outlines :
 1. Components of a building & their function.
 2. *Foundation:* Objectives
 3. shallow foundation
 4. grillage, raft, inverteal arches
 5. pile foundation.
 6. Causes of failure of foundation & remedial measures
 7. *Dewatering:* Dewatering of the foundation trenches (Pumping providing sumps & side drains, cement grouting chemical grouting).
 8. *Damp Proofing:* Objective
 9. materials used for damp proofing
 10. General principles of damp proofing methods.
 11. *Stone Masonry:* Materials required for stone masonry
 12. Types of stone masonry (rubble & Ashlar masonry)
 13. Essentials of good stone masonry
 14. *Brick Masonry:* Types of brick masonry
 15. English and Flemish bond (for 1 and 1 ½ bricks)
 16. Essentials of good brick masonry.
 17. *Shoring, Underpinning and Scaffolding*
 18. Horizontal & vertical shores
 19. Purpose and methods of under- pinning. Different types of scaffolding
 20. *Floors:* Various Types (stone patti, timber and R.C.C. floors).
 21. details of construction. Floor finishes (Lime, Cement concrete, terrazzo, marble and P.V.C. tiles).
 22. assumptions in Bernoulli's equation *Roofs:* Simple roof trusses, lean to verandah roof
 23. king post roof truss

24. queen post roof truss, North light truss.
25. *Timber: Defects in timber*
26. properties of good quality timber and their uses
27. Decay of timber, preservation of timber:
28. Decay of timber, preservation of timber:
29. Laminates and composites.
30. Laminates and composites.
31. *Doors: Paneled door, Glazed door*
32. Flush door, Collapsible steel door, Rolling steel shutter door.
33. . Flush door, Collapsible steel door, Rolling steel shutter door
34. Flush door, Collapsible steel door, Rolling steel shutter door
35. *Windows: Casement windows, Sash window, Skylight window*
36. *Windows: Casement windows, Sash window, Skylight window*
37. *Staircase: Dog-legged Staircase*
38. *Staircase: Dog-legged Staircase*
39. Requirement of a good Staircase
40. Proportioning rules of a Staircase.
41. Proportioning rules of a Staircase
42. Revision
43. Revision
44. Revision
45. Revision

Suggested Books & References

1. Rangwala, S.C., 'Engineering Materials', Charotar Book Stall, Anand.
2. Arora, S.P. and Bindra, 'Building Construction', Dhanpat Rai & Sons, New Delhi.
3. Awaasthy, S.N., 'Building Construction', Publishing House, Bhopal.

(Dr. B.S.. Singvi)
Prof.& Head (Civil Engg)