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2582

Reg. No. : .....

Name : .....

**Combined First and Second Semester B.Tech. Degree Examination, May 2009**  
**(2003 Scheme)**  
**BASIC CIVIL ENGINEERING (CMNPHERARUFB)**

Time: 3 Hours

Max. Marks: 100

**PART – A**

Answer **all** questions, **each** question carries **4** marks.

1. What are the duties of the leader and follower in chaining a line ?
2. What are the common errors that may occurs in chaining ?
3. The length of a survey line measured with a 30 m chain was found to be 631.5 m, when the chain was compared with a standard chain, it was found to be 0.10 m too long. Find the true length of the survey line.
4. Define contour. What do you understand by contour interval and on what factors does it depend ?
5. What are the requirements of partition walls ?
6. Define a flat roof and mention its advantages and disadvantages.
7. Write a short notes on pile foundations.
8. Name the different methods used for proportioning of concrete.
9. Write short note on water cement ratio as applied to concrete.
10. What is slump test of concrete ? How is it carried out ? **(10×4=40 Marks)**

**P.T.O.**



## PART – B

## MODULE – I

**Each** question carries **20** marks.

11. a) Explain the principle of levelling. **5**
- b) Briefly describe the temporary adjustments of dumpy level. **7**
- c) Define the following terms :
- i) Height of instrument
  - ii) Change point
  - iii) Back sight and fore sight
  - iv) Reduced level and line of collimation. **8**

OR

12. a) What is Simpson's rule in computation of areas ? **4**
- b) The following offsets were taken from a chain line to hedge :
- |                           |     |      |      |      |      |     |     |
|---------------------------|-----|------|------|------|------|-----|-----|
| <b>Distance in meters</b> | 0   | 30   | 60   | 90   | 120  | 150 | 180 |
| <b>Offsets in meters</b>  | 9.4 | 10.8 | 12.5 | 10.5 | 14.5 | 13  | 7.5 |
- Compute the area included between the chain line, hedge and the end offsets by Simpson's rule. **8**
- c) Explain the methods adopted for chaining on sloping grounds. **8**

## MODULE – II

13. a) What are the various methods used for determining the bearing capacity of soil ? Explain any one of them in detail. **10**
- b) Distinguish between brick masonry and stone masonry. **4**
- c) What is composite masonry ? Mention the advantages of the same. **6**

OR



14. a) Explain the requirements of a good plaster and the types of mortars used for plastering ? **7**
- b) Draw the plan and elevation of  $1\frac{1}{2}$  brick thick wall in English and Flemish bond. **6**
- c) Mention the common materials used for flooring. Describe any three in detail. **7**

MODULE – III

15. a) Write short note on : Soundness of cement. **6**
- b) Explain the properties of cement concrete. **7**
- c) Explain briefly the different methods adopted for mixing of concrete. **7**

OR

16. a) Describe the properties of mild steel and HYSD steel. **8**
- b) List the advantages and disadvantages of reinforced cement concrete. **4**
- c) Define prestressing. What are the methods used for the same. Explain briefly any one. **8**
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