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D – 5369

Reg. No. :

Name :

**Combined First and Second Semester B.Tech. Degree
Examination, March 2018
(2008 Scheme)**

08-106 : BASIC CIVIL ENGINEERING (CMNPHERUFBS)

Time : 3 Hours

Max. Marks : 100

PART – A

Answer **all** questions, **each** question carries **5** marks.

1. What is parallax error ? How can it be eliminated ?
2. What are offsets ? List the different types of offset.
3. What are contour lines ? Elaborate on their uses.
4. What are the desirable qualities of a good building stone ?
5. What is meant by curing of concrete ? What are the different methods adopted for it ?
6. What is meant by raft or mat foundation ? What are the situations under which raft foundations are preferred ?
7. What is “bulking of sand” ?
8. What are the requirements of a good stair ?

(8×5=40 Marks)

P.T.O.



PART – B

Module – I

Each question carries 20 marks.

9. a) Explain Simpson's rule and Trapezoidal rule ? 5

b) The following offsets were taken from a survey line to a boundary :

Chainage : 0 15 30 50 70 90 110 120 130

Offset : 4.6 3.8 2.9 4.2 5.2 6.1 5.8 4.5 3.6

Calculate the area between the survey line, boundary and the first and last offset by

i) Trapezoidal rule ii) Simpson's rule. 15

OR

10. a) Briefly explain :

i) Total station

ii) GPS. 8

b) Fill the missing figures and complete the level of book page. Apply usual arithmetic check :

Station	BS	IS	FS	HI	RL	Remarks
BM	1.175			X	100.000	BM
1		X			98.975	Point 1
2		1.470			X	2
CP1	2.000		X	X	98.100	CP1
3		1.900			X	3
4		X			97.200	4
CP2	3.5		2.5	101.10	97.600	CP2
5			2.650		X	5 12



Module – II

11. a) What are the ingredients of a paint ? Explain the method of painting a new plastered surface. 8
- b) Draw the plan and elevation of a two thick brickwall in English and Flemish bond. 12

OR

12. a) What are the different types of roof covering materials used in building construction ? Explain. 8
- b) Draw the sectional elevation of a King Post timber truss and mark the salient features. 12

Module – III

13. a) Explain the different methods adopted for proportioning of concrete. 8
- b) What is meant by M20 concrete. How will you determine the strength of concrete in the laboratory ? 12

OR

14. a) Write short notes on :
- i) Septic tank
 - ii) Sock pit. 6
- b) What are the different types of stairs ? Draw the plan and sectional elevation of a stair and mark the salient features. 14
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