B.E.All Branches Semester First (C.B.S.) / B.E. Semester First (Fire Engineering)

Basics of Civil Engineering Paper – V

P. Pages : 2 **KNT/KW/16/7200**

Time : Two Hours * 0 6 3 4 * Max. Marks : 40

Notes :
1. All questions carry marks as indicated.
2. Solve Question 1 OR Questions No. 2.
3. Solve Question 3 OR Questions No. 4.
4. Solve Question 5 OR Questions No. 6.
5. Solve Question 7 OR Questions No. 8.
6. Assume suitable data whenever necessary.
7. Illustrate your answers whenever necessary with the help of neat sketches.
8. Use of non programmable calculator is permitted.

1. a) Explain the scope of Civil engineering in various aspects. **2**

b) What are the various principles of planning.? **4**

c) A plot having size 20 m x 30 m. A building constructed on it occupies 500 m^2 on ground and 400 m^2 on first floor. If permissible F.S.I. is 0.9, How much area can be constructed on second floor? Assume margin of 3m on front side & 2m on all other side. **4**

OR

2. a) What are the various types of shallow foundations and explain any one with neat sketch. **3**

b) Differentiate between load Bearing and framed structures. **3**

c) What are the different grades of cement. Also enumerate the different types of cement. **4**

3. a) State various types of maps and their uses. **3**

b) Explain the Geographical Information System. (GIS). **3**

c) Explain the principles of surveying. **4**

OR

4. a) What are the different traffic signs and explain any three with neat sketches. **3**

b) What are the different causes of road accidents.? **3**

c) Differentiate between rigid pavement & flexible pavement. **4**

5. a) What are the requirements of whole some water? **3**

b) Draw the flow chart of water treatment process. and explain the function of any two units. **3**

c) Calculate per capita demand for the town having population of 8,000 and total quantity of water available for town per year is 350 million liters. **4**

OR

6.	a)	Differentiate between gravity Dam and Earthen Dam.	**3**
	b)	Write a brief note on rain water Harvesting?	**3**
	c)	Write and explain various methods of collections of solid waste?	**4**
7.	a)	Write and explain various excavating equipment's.	**5**
	b)	What is SCADA? Mention its significance.	**5**

OR

8.	a)	What is Telemetry? Mention its Applications.	**3**
	b)	Explain the concept of Green Building.	**3**
	c)	Explain the role of Engineers in sustainable Development.	**4**

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