B.E. (Civil Engineering) Fourth Semester (C.B.S.)

Building Construction & Material

Paper – V

P. Pages : 2 **TKN/KS/16/7355**

Time : Three Hours * 0 7 6 7 * Max. Marks : 80

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. Solve Question 9 OR Questions No. 10.
7. Solve Question 11 OR Questions No. 12.
8. Due credit will be given to neatness and adequate dimensions.
9. Assume suitable data whenever necessary.
10. Illustrate your answers whenever necessary with the help of neat sketches.
11. Use of non programmable calculator is permitted.

1. a) What is foundation? State the essential requirements of good foundation. **6**

b) What are the causes of failure of foundation? What measures are to be taken to prevent such failures? **7**

OR

2. a) Explain the necessity of timbering to the trenches. **6**

b) Describe with sketches the method of setting out foundation trenches. **7**

3. a) What are the points to be observed while supervising the brick work? Explain in detail. **7**

b) What is reinforced brick masonry? Explain its construction. **6**

OR

4. a) Write a short note on : **6**
i) Stretcher bond. ii) Header bond. iii) Closer bricks.

b) What are the causes of providing a cavity wall? Explain the details of its construction with neat sketches. **7**

5. a) Explain with neat sketches different forms of rubble masonry? **7**

b) Enumerate the functional difference and structural difference between Arches and Lintel. **7**

OR

6. a) What are the different methods of damp proofing? Explain in brief. **7**

b) What are the appliances used for lifting heavy stones? Explain with sketches. **7**

7. a) What are the ideal requirements of a floor? **6**

b) What are the advantages and disadvantages of pitched and flat roofs? **7**

OR

8. a) What are the various types of roof covering materials commonly used for pitched roof? Explain briefly. **7**

b) Explain with the help of sketches, the IPS flooring. **6**

9. a) Design a dog legged stair case for a room size of 2.5 x 5.0 m. The height of floor is 3.60 m. Assume suitable data. **8**

b) What are the different types of doors? Explain any one. **6**

OR

10. a) Explain with sketches. **7**
i) Casement windows. ii) Dormer windows

b) Discuss the factors to be considered regarding doors and windows : **7**
i) Purpose ii) Location and iii) Size

11. a) What are the different types of scaffolding used. Explain any one in detail. **7**

b) What are the good requirements of paints. **6**

OR

12. a) What are the objects of plastering? Describe the procedure for carrying out the plastering to brick wall in c.m 1 : 4 in two coats. **7**

b) Enumerate various types of pointing. **6**

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