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CT-405/BC&MCED/4th Sem/2014/N

**BUILDING CONSTRUCTION,  
MAINTENANCE AND CIVIL  
ENGINEERING DRAWING**

Full Marks – 70

Pass Marks – 28

Time – Three hours

The figures in the margin indicate full marks  
for the questions.

Answer question No.1 and any *four* from the rest.

1. Answer the following questions : 10

- (i) For what purpose trestle scaffolding is used ?
- (ii) At what circumstances combined footing of trapezoidal shape is constructed ?
- (iii) Name the arch which comes under three centred arch.
- (iv) What are the two different stairs used for emergency purpose ?

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- (v) On which part of the building dormer window is provided ?
- (vi) What is newel stair ?
- (vii) For what purpose retaining walls are constructed ?
- (viii) For what kind of structures well foundation is provided ?
- (ix) Upto what span length stone arches can be used effectively ?
- (x) Which one of the two is considered to be shallower, pier foundation or well foundation ?
2. (i) Define substructure and superstructure. 4
- (ii) Explain trapezoidal combined footing and mat footing with neat sketches. 5
- (iii) What are the basic functions of foundation ? 6
3. (i) What do you understand by bonds in brick work ? 2

- (ii) What are the various rules adopted in brick bonding ? 8
- (iii) With the help of a suitable diagram, show the following : 5
- (a) Stretcher
  - (b) Header
  - (c) Lap
  - (d) Perpend.
4. (i) Define arch. Classify arch according to shape. 10
- (ii) With the help of a suitable diagram, show the various elements of an arch. 5
5. (i) Classify doors on the basis of arrangement of components. Describe any two with neat sketches. 9
- (ii) Define roofs and what are the basic requirements of a good roof ? 6
6. Write short notes on : 15
- (a) Pitched roof
  - (b) Combined king post and queen post truss