USN | | | | | | | | | | |

14ARC2.2

Second Semester B.Arch. Degree Examination, Dec.2016/Jan.2017
Materials and Methods in Building Construction – II

Time: 4 hrs. Max. Marks: 100

Note: *1. Answer FIVE questions, choosing one question from each module.*
2. Assume suitable scale and data for drawing.

Module-1

1 Draw the sections elevation of a typical king post roof truss to a span of 6m for a building. Show the joinery details of truss components to enlarged size. **(20 Marks)**

OR

2 Draw the sectional elevation of a typical queen post roof truss to a span of 7.5m for a workshop. Show the joinery details of roof truss components to enlarged size. **(20 Marks)**

Module-2

3 Describe the different grades of concrete with their ingredients and explain their properties and usage is construction works. **(20 Marks)**

OR

4 Explain the different types of cement with their properties and architectural applications. **(20 Marks)**

Module-3

5 Explain the following through sketches:
a. Expansion joint
b. Construction joint
c. Finishes in concrete
d. Form work for RCC. **(20 Marks)**

OR

6 Draw the cross section of a typical combined raft footing foundation, assuming all the required dimensions. **(20 Marks)**

Module-4

7 Draw the plan and section of a typical RCC folded plate stair case of width 1.2m and to reach a height of 3m with a mid landing, to a suitable scale and explain the component. **(20 Marks)**

OR

8 Draw the plan with section and enlarged details of joints of a typical timber roof truss of width 1.2m and to reach a height of 3m with a mid landing, to a suitable scale and explain the components. **(20 Marks)**

Module-5

9 Draw the plan and section with enlarged details of joints of a typical steel spiral staircase of radius 0.9m and to reach a height of 3m to a suitable scale and explain the components. **(20 Marks)**

OR

10 A composite staircase of width 1.2m has to be designed, to reach a height of 3m for a school building. Draw the plan, section and enlarged details of joints to any suitable scale and explain. **(20 Marks)**

* * * * *