MANIPAL UNIVERSITY

SECOND SEMESTER B. DES. (ID) DEGREE EXAMINATION – MAY 2016

SUBJECT: BID 110 – BUILDING CONSTRUCTION & MATERIALS II
(2015 SCHEME)

Saturday, May 28, 2016

Time: 10:00 – 14:00 Hrs.

Max. Marks: 50

✍ **Question-1 is compulsory.**
✍ **Answer any TWO questions from PART-A.**
✍ **Answer any ONE question from PART-B**

1. **Draw in detail a timber door for an opening of size 1.2m × 2.1m height and furnish the following:**

1A. Plan showing all fixing detail-1:10

1B. Elevation showing the members of the window-1:10

1C. Section showing all joinery- 1:10

1D. Isometric view of any one joinery detail in suitable scale.

(3+4+3+2½ = 12½ marks)

PART – A

2. **Explain with neat sketches:**

2A. Lean to roof

2B. King post roof truss

2C. Tile fixing detail

(3+6½+3 = 12½ marks)

3. **Sketch and label the following:**

3A. Lap joint

3B. Dado joint

3C. Batten rafter joint

3D. Mitre Joint

(3+3+3½+3 = 12½ marks)

4. Sketch and label to distinguish between a dog-legged staircase, an open well staircase, quarter turn staircase and spiral staircase. (Plan, Elevation, Section)

(3½+3+3+3 = 12½ marks)

PART – B

5A. What is a tinted/colored glass? Where are they used? Mention the pigments used for a blue and red color in glass.

5B. What are the defects in wood caused by fungi? Explain each with supporting sketches.

(6+6½ = 12½ marks)

6A. What are ceramics? What are its properties? List the applications of Ceramics in the interiors.

6B. Explain the process of artificial seasoning of timber.

(6+6½ = 12½ marks)

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