

Code No: **R31012****R10****Set No. 1****III B.Tech I Semester Supplementary Examinations, June – 2015****BUILDING PLANNING & DRAWING****(Civil Engineering)****Time: 3 hours****Max. Marks: 75****Answer any THREE Question from Part – A
and any ONE Question from Part – B*************PART - A**

- 1 a) State the objectives of building Byelaws. When do you apply them? [8]
b) Give the detailed classification of buildings. [7]
- 2 a) What are the standards on which different rooms are grouped? Explain briefly. [8]
b) Enumerate the difference between Floor area and Carpet area. [7]
- 3 Explain the factors responsible for site selection, its principles of planning and components of school along with the design of a classroom. [15]
- 4 a) What are the various stages of construction project? What type of construction management is required for them? [8]
b) Define CPM and PERT. Give the difference between them. [7]
- 5 a) Write a short note on building byelaw for frontage and open space in buildings. [8]
b) Enumerate the minimum size and other requirements of different rooms. [7]

PART – B

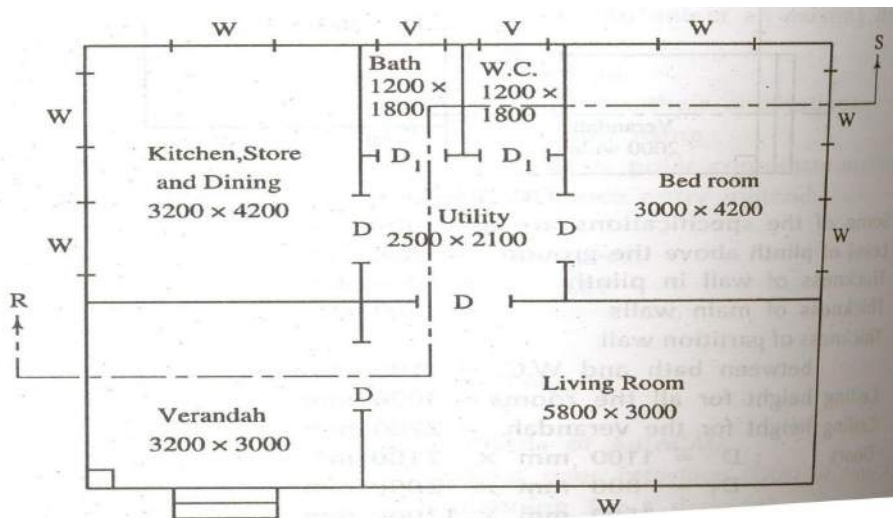
- 6 a) Draw the conventional sign for Floor Finish; Metal sections; Wood Across Grain. [15]
Also draw the Plan and Elevation of One and a Half Brick Wall.
- b) Draw to a suitable scale the elevation and details at junctions of a King Post Truss [15]
of effective span 8000mm.

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Set No. 1

- 7 Draw the Plan, section and elevation for the line diagram shown below in Fig. 1 to [30] scale. Assume $D_1 - 800 \times 2000$, $D - 1000 \times 2000$, W - window Glazed - 1500×1000 , W_1 - Window Glazed - 2000×1000 , V - Ventilator Glazed - 800×500 , wall thickness - 300mm



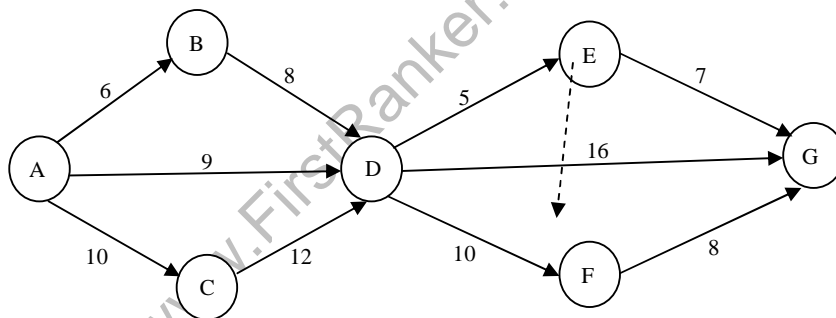
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R10**Set No. 2****III B.Tech I Semester Supplementary Examinations, June - 2015****BUILDING PLANNING & DRAWING****(Civil Engineering)****Time: 3 hours****Max. Marks: 75****Answer any THREE Question from Part – A
and any ONE Question from Part – B**

PART - A

- 1 a) Discuss the limitations of built up area for various buildings. [8]
b) Define the terms: Floor Area ratio and Floor Space Index along with examples. [7]
- 2 a) State the minimum standards of Natural light and ventilation; sleeping rooms and kitchens in buildings. [8]
b) How are the houses categorized based on different income groups? Explain them in detail. [7]
- 3 A central library is to be designed for an engineering college. Briefly explain the principles and components involved in planning. [15]
- 4 a) State the significance of Times and Floats in construction management problem solving. [7]
b) Find the shortest path for the following network shown in the figure. [8]



- 5 Write a detailed note on the following: [15]
(i) Provision for safety from fire and explosions
(ii) Applicability of bye-laws
(iii) Factors affecting the selection of site for buildings.

PART – B

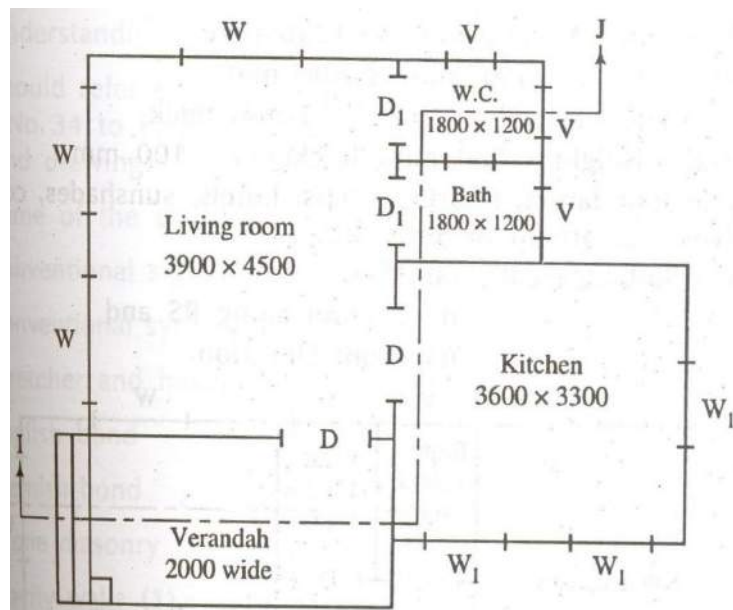
- 6 a) Draw the conventional sign and symbols for the following as per IS 962: Brick work; UCR Masonry; Concrete; Tile flooring; and Teak wood. [15]
b) Draw to a suitable scale the elevation and sectional plan of a fully glazed window with the following specifications. Assume any other data required suitably: Size of the window: 120cm x 200cm; opening in a brick wall of 300mm thick. [15]

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Set No. 2

- 7 Draw the Plan, section and elevation for the line diagram shown below in figure to scale. Assume $D_1 - 750 \times 1800$, $D - 900 \times 2100$, W - window Glazed - 1500×1000 , W_1 - Window Glazed - 1200×1000 , V - Ventilator Glazed - 750×450 mm, wall thickness - 300 mm [30]



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Set No. 3

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BUILDING PLANNING & DRAWING

(Civil Engineering)

Time: 3 hours

Max. Marks: 75

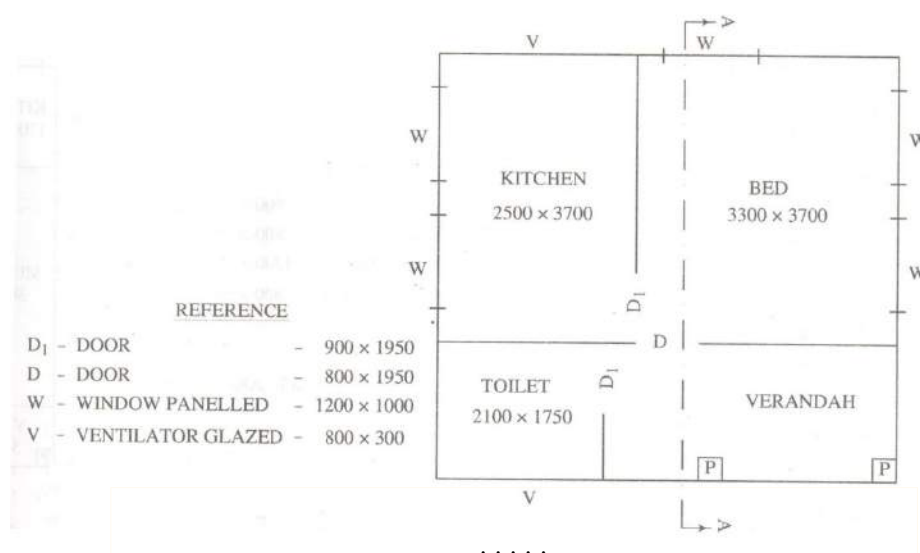
Answer any **THREE** Question from Part – A
and any **ONE** Question from Part – B

PART - A

- 1 a) Explain the various principles and regulations of building byelaws. [8]
b) Write a detailed note on Wall thickness and Height of buildings. [7]
- 2 What are the factors to be considered by planner prior to planning of a residential building? Explain them in detail. [15]
- 3 a) Describe the important departments and facilities to be provided in the layout of a general hospital. [7]
b) What are the points to be considered in the design of Industrial buildings? Explain. [8]
- 4 a) Explain the process of numbering of the events in CPM network. Also explain about Dummy activity. [8]
b) Discuss in detail the various time estimates adopted for PERT networks. Also state the equation for calculating standard deviation and variance. [7]
- 5 What are various building elements? Explain each in detail along with the minimum standards of them. [15]

PART - B

- 6 a) Draw the isometric view of a right angle junction of a one and half brick wall in English bond, showing at least four consecutive layers. [15]
b) Draw to a suitable scale the elevation and section of a partly paneled and partly glazed door for an opening of 2000mm height and 1000mm width in a 300mm thick brick wall. [15]
- 7 Draw the Plan, section and elevation for the line diagram shown in Figure below to scale. [30]

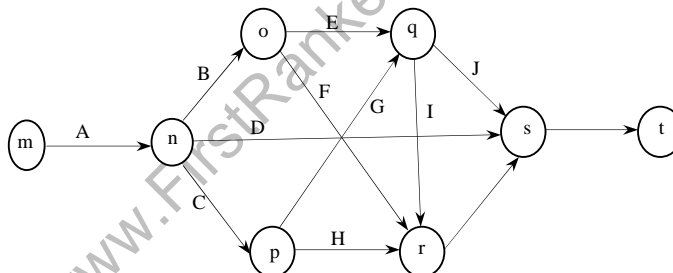




Code No: **R31012****R10****Set No. 4****III B. Tech I Semester Supplementary Examinations, June - 2015****BUILDING PLANNING & DRAWING****(Civil Engineering)****Time: 3 hours****Max. Marks: 75****Answer any THREE Question from Part – A
and any ONE Question from Part – B**

PART - A

- 1 a) How the horizontal and vertical development of buildings is controlled in building rules? [7]
b) What is Floor Area Ratio? Calculate number of storey if the FAR is 160% and ground coverage is 30%. [8]
- 2 a) Explain the general requirements in the planning of a normal residential building. [7]
b) Give the standard dimensions for the following rooms of a residential building: [8]
(i) Verandah (ii) Garage and (iii) Drawing Room.
- 3 Explain the planning process from site selection to the design of various components of a recreation building with the help of a line diagram. [15]
- 4 a) Using Fulkerson rule, number the events of the network shown below: [8]



- b) Define PERT. State the significance of Expected time in PERT analysis and how do you estimate the same. [7]
- 5 Write a detailed note on the following: [15]
(i) Requirements for green belt and landscaping
(ii) Building byelaws

PART – B

- 6 a) Represent the following neatly: Partition blocks; Fiber building boards and insulation boards; alternate course of one and half brick wall at a right angle corner in Flemish bond [15]
b) Draw the front elevation of a paneled and half glazed door with a frame of size 1200 x 2100mm showing the various components. [15]

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Set No. 4

- 7 Draw the Plan, section and elevation for the line diagram shown in figure below to scale. Assume D_1 – 900 x 2000, D – 1000 x 2000, W – window paneled – 900 x 1200, W_1 – Window Glazed – 2000 x 1000, V – Ventilator Glazed – 800 x 300 mm, wall thickness – 300mm [30]

