

II B. Tech II Semester Regular Examinations, April/May - 2016
BUILDING PLANNING AND DRAWING
 (Civil Engineering)

Time: 3 hours

Max. Marks: 70

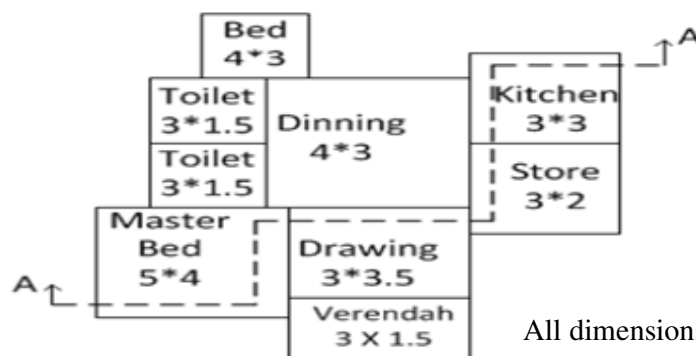
- Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)
 2. Answer any **THREE** Questions from **PART-A**
 3. Answer any **ONE** Question from **PART-B**

PART -A

1. Explain in detail the following: (14M)
 (a) Floor area ratio (b) Building byelaws
2. Explain in detail the various requirements of different rooms and their grouping (14M)
3. Explain in detail with neat sketch about planning of bank building. (14M)
4. With the help of sketches explain the principles concerned with the planning of (14M)
 (a) Theatre (b) Hospitals
5. a) Explain the objectives of building byelaws? (7M)
 b) Explain the principles of building byelaws? (7M)

PART -B

6. Draw neat conventional signs for the following items (in 40mm*40mm blocks). (28M)
 (a) (i) Glass (ii) Earth (iii) Aluminum (iv) Steel.
 (b) Draw the plans of Flemish Bond odd and even courses of one and half brick walls in thickness at the junction of a corner (300mm thickness).
7. The line sketch of the plan of a residential building is shown in below Figure. (28M)
 Draw (i) A neat dimensioned plan (ii) Sectional elevation along A-A.
 Specifications: Foundation: CC 1:3:6, 300 mm wide thick and 1200 mm wide, depth of foundation is 1000 mm below the ground level.
 Basement-course Rubble Masonry: 400 mm wide and 700 mm high
 Superstructure: Brickwork in CM 1:6, 300 mm wide and 300 mm high ROC roofing: 100 mm thick. Provide door, windows, ventilators, lintels and sunshades as per standard dimensions.



All dimensions are in 'm'



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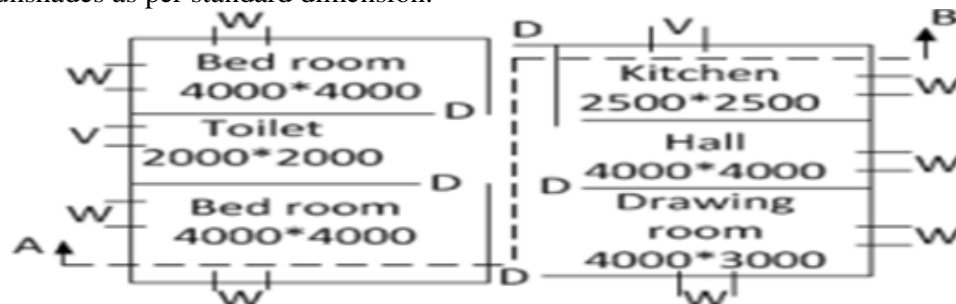
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PART -A

1. Explain in detail the following
 - a) Open space requirements (7M)
 - b) lightning and ventilation requirements (7M)
2. Explain in detail about the characteristics of various types residential buildings. (14M)
3. a) Explain the factors considered during the plan of a school building (7M)
 b) Explain what you understand by site plan. Show a typical site plan of a building drawn as per building bye- laws (7M)
4. a) Describe the objectives of building bye laws. (7M)
 b) What are the requirements of living room and bed room? (7M)
5. Explain in detail with neat sketch about planning of dispensaries,. (14M)

PART -B

6. Draw neat conventional signs and symbols for the following: (28M)
 (a) (i) Glass (ii) Wood across again (iii) Beveled closer (iv) King closer.
 (b) Draw the front elevation of a fully paneled wooden window of size 1300mm*1500mm. Also show the sectional plan. Assume other data
7. The line sketch of the plan of a residential building is shown in below figure. (28M)
 Draw (a) A neat dimensional plan. (b) Sectional elevation along AB, to a suitable scale, using the following specification. Specifications: Foundations: CC 1:4:8; 800mm wide and 800mm thick. Footings: Rubble stone masonry: 600mm*500mm Basement: Coarse rubble masonry: 400mm wide and 700mm high. Super structure, Brick work in CM 1: 5; 300 mm wide and 300mm high R.O.C roofing 100mm thick. Provide doors, windows, ventilaters, lintels and sunshades as per standard dimension.



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PART -A

1. Explain in detail the following
 - a) Principles under laying building bye laws (7M)
 - b) Height of buildings (7M)
2. a) Explain the minimum standards for various parts of a residential building. (7M)
 b) What are the requirements for the following rooms in planning of residential building? i) Dining room. ii) Bed room. (7M)
3. a) Briefly explain about the lighting and ventilation requirements for a building. (7M)
 b) Write the minimum standards for various parts of a building. (7M)
4. Explain in detail with neat sketch about planning of hotels and motel. (14M)
5. Explain in detail with neat sketch about the planning office buildings (14M)

PART -B

6. Draw neat conventional symbols for the following: (28M)
 (a) i) Embankment ii) Cutting iii) King closer iv) Queen closer.
 (b) Draw to a suitable scale the front elevation of a queen post truss indicating all details for a clear span of 8000 mm. Assume other data.
7. Figure in below shows the line drawing of a residential building, draw to a scale of the following (a) Plan (b) Sectional elevation along AA first Cement concrete base 300mm thick and 900mm wide is provided under main walls. Footings are brick wall in CM 1:6, 600mm wide and 300mm deep depth to which main walls are taken below the ground level is 1000mm. Superstructure: Main walls 300mm thick and other walls 200mm thick. Head room 3000mm, Assume suitable footings below verandah. Roofing: 1:2:4; RCC slab 120mm thick Any other data not furnished may be suitably assumed. (28M)



Note: All dimensions are in mm



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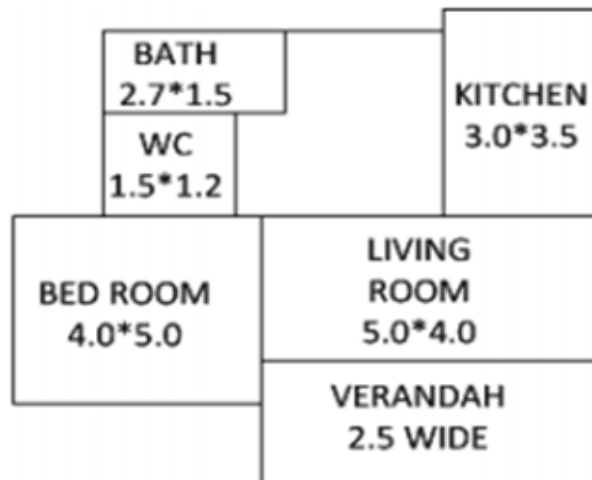
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PART -A

1. Write a short notes on the following:
 - a) setback, detached building, building line, (7M)
 - b) Classify the building based on occupancy and type of construction. (7M)
2. Briefly explain the following: (14M)
 - (a) Roominess (b) Circulation (c) Flexibility (d) Grouping
3. Classify the buildings based on occupancy and type of construction in detail (14M)
4. Explain in detail with neat sketch about planning of buildings for recreation (14M)
5. Explain the following: a)open space requirements b) built up area limitations- (14M)
 - c)height of buildings d)wall thickness

PART -B

6. Draw sketches for conventional signs for (28M)
 - (a) (i) Glass (ii) Concrete (iii) Ground level (iv) Stone masonry (v) Plaster (vi) Cast iron.
 - (b) Draw a plan of even and odd courses of two brick thick wall in English bond.
7. (a) Draw a dimensional sketch of a double coupled roof for 6m span (b) The (28M)
 - central line diagram of a residential building is shown below. Draw the plan of the building providing doors and windows of the standard sizes. Line diagram is shown in below.



All dimensions are in 'm'

