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Seat No.	
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**Fourth Year B. Arch. Examination, 2014**  
**TOWN PLANNING**  
**(2008 Pattern)**

Time : 3 Hours

Max. Marks : 100

- Instructions :** 1) Question 1 and Question 6 are **compulsory**.  
2) Answer **any three** questions from each Section from the **remaining**.  
3) Answer to the **each** Section should be written in **separate** answer books.  
4) Draw neat diagrams or sketches **wherever** necessary.  
5) Figures to the **right** indicate **full** marks.

SECTION – I

1. Write a detailed note on garden city concept by Ebenezer Howard. Explain the same with examples. 14
2. What are different forms of planning ? 12
3. Write short notes (**any two**) : 12
  - 1) Satellite Towns.
  - 2) Set back
  - 3) Distribution of Land uses.
4. Explain the classification of Towns in India. 12
5. What is the necessity of Development Plan ? Elaborate the method of execution of Development Plan. 12

SECTION – II

6. Describe various types of surveys in town planning. Explain importance of surveys in Planning. 14
7. Write a note on M.R. and T.P. Act and explain its importance. 12
8. Explain briefly the provisions of Maharashtra Tree Act and how it is administered to plant, replant and to cut the trees ? 12
9. What are the importance of Bye laws ? 12
10. What is slum clearance ? Describe two methods of slum clearance. 12



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**Fourth Year B. Arch. Examination, 2014  
SPECIFICATION WRITING  
(2008 Pattern)**

Time : 3 Hours

Total Marks : 100

- Instructions :** 1) **All questions are compulsory.**  
2) Figures to **right** hand side indicate marks.  
3) Answers to diff. Sections to be written in **separate** answer books.

SECTION – I

1. Discuss the Importance of Specification writing in a contract document. Explain the principles of Specification Writing. 15
- OR
- Define Specification writing. Discuss the language, style, grammar and impact of specifications on construction projects. 15
2. Discuss the relation of working drawings and specification writing. Explain any two types of specifications giving examples. 15
- OR
- Discuss the relation of Quantity Surveying and Specification writing. Explain any two types of specifications giving examples. 15
3. Write brief specifications (**any four**). 20
- a) P.C.C in foundation
  - b) R.C.C. Footing
  - c) Excavation in hard rock
  - d) Ceramic Tile Flooring
  - e) Sandface Cement Plaster

SECTION – II

4. Write short notes (**any four**). 20
- a) Material specifications for Bricks
  - b) Specifications for Waterproofing
  - c) Demolition work
  - d) Glazing
  - e) Whitewashing.

P.T.O.



5. Give reasons (**any four**). **20**
- a) There are minor cracks on walls in newly constructed flats.
  - b) Blasting for Excavation is prohibited in municipal Limits.
  - c) Slope has to be provided for waterproofing on Terraces.
  - d) Cement and Reinforcement have to be stored in covered places.
  - e) Sea sand should not be used in Construction works.
6. Write manufactures name for the following products (**any ten**). **10**
- a) Glazed tile dado
  - b) Mangalore Tiles
  - c) Safety Glass
  - d) Orissa Pan
  - e) Lift
  - f) Kitchen Sink
  - g) Wash Basin
  - h) Cement
  - i) Electric Switch
  - j) P.V.C. Water Tank
  - k) Galvanized Iron Sheets.



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**Fourth Year B. Arch. Examination, 2014**  
**ARCHITECTURAL DESIGN – IV**  
**(2008 Pattern – Bridge Course)**

Time : 18 Hours

Max. Marks : 100

- Instructions :**
- 1) Your answers will be valued as a **whole**.
  - 2) Assume **suitable data if necessary**.
  - 3) The candidates shall submit single line plans of the entire scheme with the layout plan to the required scale at the end of the first day. These drawings shall not be returned to the candidates, therefore due record of the same should be kept for subsequent days. The candidate shall to make any considerable departure from the design submitted on the first day.
  - 4) The drawings should be self-explanatory with structural scheme, should have clarity in all plans and Sections. Skill of drafting should have language of architecture.

**COMMERCIAL COMPLEX AT AHMEDNAGAR**

A reputed promoter and builder has purchased a plot of land measuring 5,400 Sq. Meter in a developing area of Ahmednagar City. Ahmednagar is a fast growing city and a trade-city of Maharashtra. It experiences hot and dry climate in summer and cold and dry climate in winter. It receives moderate rainfall during monsoon season.

The proposed plot is rectangular, 90 meters in east-west and 60 meters in north-south direction. Plot has 1:100 slope towards east. The plot is surrounded by mixed land-use area and has 30 meter wide road on west side. The Commercial Complex is to be designed for the following requirements.

**THE SPACE REQUIREMENTS**

Built-up areas of various commercial Units is as follows :

<b>Unit</b>	<b>Area (Sq. Mts.)</b>	<b>No. of Units</b>
A-type shops	30	25
B-type shops	45	10
Showrooms	180	2
A-type offices	30	25
B-type offices	45	10
Restaurants	60	2
Exhibition Halls	120	2

P.T.O.



**PARKING**

Four wheelers	70
Two wheelers	140

**DESIGN REQUIREMENTS**

1. 10% of the area is to be reserved as open space. This open space will be used for various promotional activities and events. Floor space of open space is not available for construction. Floor space of area of internal roads, if any; is available for construction.
2. Distance between two buildings/wings min. 6.0 M. and  $(H/2)-3$  M. H = Height of building. It can be maximum 7.50 M.
3. Side margins from plot boundary will be minimum  $(H/2)-3$  M. It can be maximum 7.50 M.
4. Permissible FSI is one.
5. Max. permissible height is 24.00 M.
6. U.G. Tank, Security Cabin, D.G. set, compost plant should be provided at convenient locations.
7. Areas free of FSI.
  - a) Balconies : to the extent of 15% of floor area.
  - b) Staircase : width of flight should be 1.2 M.
  - c) Stilt Floor.
  - d) Passages : to the extent of 5% of floor area.
  - e) Basement : constructed with in the area left of side margins.
8. All other requirements of 'National Building Code' should be followed.

**DESIGN PARAMETERS :**

1. Minimum side margins from all sides 6.0 Meters.
2. Outdoor activity spaces should be integrated with indoor activity spaces.
3. Necessary passages, corridors, staircases, lobbies should be provided.
4. Interesting Landscape should be provided.

**DRAWINGS REQUIRED :**

**First Day :**

1. Single line layout plans showing site, buildings, parking, driveways, pathways, landscaping etc.
2. Single line plans at all levels

Scale

1 : 250

**Final Day :**

1. Layout plan showing site, buildings parking, driveways, pathways, landscaping etc. 1 : 250
2. Plans at all levels internal layout should be shown. 1 : 200
3. Minimum 2 sections to explain the scheme 1 : 200
4. Minimum 2 elevations 1 : 200
5. A sketch perspective or bird's eye-view.



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**IV B.Arch. Examination, 2014  
(2003 Pattern)  
BUILDING CONSTRUCTION AND MATERIALS – IV**

Time : 3 Hours

Max. Marks : 100

- Instructions :** 1) *All questions are compulsory.*  
2) *Answers to the **two** Sections should be written in separate books.*  
3) *Black figures to the **right** indicate full marks.*  
4) *Assume suitable data, if **necessary**.*

SECTION – I

1. A workshop of size 20 m × 30 m × 6 m is to be constructed in an industrial area. Draw a plan to a scale of 1 : 100 and a detail section showing all structural details and a suitable roofing system giving details of lighting, ventilation and rain water disposal to a scale of 1 : 50 .

OR

A Seminar Room of size 6 m × 8 m is to be constructed. With the help of neat sketches give all details of treatment to make the room sound proof. **30**

2. Draw plan and Section to a scale of 1 : 100 and two important constructional details to a scale of 1 : 20, of a semi Olympic size swimming pool (12.5 m × 25 m). Give details of appurtenant services.

OR

Explain with the help of neat sketches, the construction of balconies for an auditorium of size 15 m × 35 m.

- a) Cantilever theatre balcony
- b) A partially cantilever balcony
- c) Balcony supported over the foyer.

**30**

SECTION – II

3. Write short notes on **any five** with neat sketches.
- a) Two types of expansion joints for slabs and beams.
  - b) Any one system of curtain walling.
  - c) RCC north light barrel vault.
  - d) A skimmer unit detail for a swimming pool.
  - e) Any two structural systems used to resist swaying problems in high rise buildings.
  - f) Hyperbolic Paraboloides.
  - g) Long span and short span vault.
  - h) Coffered slabs.
  - i) Folded slabs.

**40**



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**Fourth Year B.Arch. Examination, 2014  
PROFESSIONAL PRACTICE  
(2008 Pattern and 2008) (Bridge Course)**

Time : 3 Hours

Max. Marks : 100

- Notes :** 1) Answers to **each** Section must be written in **separate** answer books.  
2) Q. 1 from Section I and Q. 6 from Section II are **compulsory**.  
3) Solve **any three** of the remaining questions from **each** Section.  
4) Figures to the **right** indicate **full** marks for the question.

SECTION – I

1. Write short notes on **any four** of the following (**five** marks **each**). **20**
  - A) Eligibility of Registration with Council of Architecture.
  - B) Architect's social responsibility.
  - C) Types of architectural competitions.
  - D) Impact of age on building value.
  - E) Factors affecting value of a land.
  - F) Tenure of Land.
2. State the nature and scope of comprehensive architectural services. **10**
3. Explain the role of consultants and sharing of responsibility in architectural practice. **10**
4. On what grounds a client may claim compensation from the architect ? **10**
5. State various methods of valuation of properties and give details of any one them. **10**

SECTION – II

6. Write short notes on **any four** of the following (**five** marks **each**). **20**
  - A) Interim Certificate
  - B) Retention Money
  - C) Defects liability period

**P.T.O.**



D) Clerk of Works

E) Variations and Extras

F) Extension of Time Limit

7. Compare the advantages and disadvantages of Item Rate Tenders vis-à-vis Lumpsum Tender. **10**
8. What is the role of architect in quality control of the work ? **10**
9. What are the reasons for termination of contract by the Owner ? **10**
10. State why arbitration is a preferred method of settling disputes in a building contract. **10**

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**Fourth Year B. Arch. Examination, 2014**  
**QUANTITY SURVEYING AND ESTIMATING**  
**(2008 Pattern)**

Time : 3 Hours

Max. Marks : 100

- Instructions :** 1) Answer to **all** questions from **each** Section.  
2) Answer to the **two** Sections should be written in **separate** answer books.  
3) Neat diagrams must be drawn **wherever** necessary.  
4) Figures to the **right** indicate full marks.  
5) **Use** of logarithmic tables, slide rules, Mollier charts, electronic pocket calculator and steel tables is **allowed**.  
6) Assume suitable data, if **necessary**.

SECTION – I

1. a) Work out quantities for the following items of work based on the details given in the accompanying diagram (Fig. 1) Based on the details and data as given below **(any eight)**. **40**
- 1) Excavation for column footings
  - 2) R.C.C. Column footings
  - 3) P.C.C. for Footings
  - 4) Chajja for all windows.
  - 5) Niroo finish wall plaster for Guest Rooms only
  - 6) Ceramic tile Dado for all toilets
  - 7) Floor tile for toilets
  - 8) Flooring only for rooms without skirting
  - 9) Door frame for D1 Section 125 mm × 75 mm
  - 10) Aluminium windows and ventillators.

Data : Thickness of slab 150 mm, Floor to Floor Height 3m.

- Size of all beams 230 × 400 mm
- Size of all columns : 230 × 500 mm,
- Size of all footings : 1000 × 1000 mm, D = 600 mm, d = 200 mm
- Size of P.C.C. 1200 × 1200 mm, Thickness 150 mm
- Size of Excavation 1500 × 1500 mm, Depth of excavation from G.L. 1. 50 m
- Bearing of lintel 150 mm on either side.
- Dado in Toilets 2100 mm height

**P.T.O.**



b) State the unit of measurement as per IS code 1200

10

Manhole	D.P.C. Layer
Barbed wire fencing	Skirting
Compound Walls	Internal plaster
Wash hand basin	Sewage pipes
P.C.C. in plinth	Brick masonry for more than 230 mm thick

### SECTION – II

2. Write short notes on **(any two)** :

10

- 1) Rules of deduction in brick masonry
- 2) Long wall and short wall method
- 3) Work order
- 4) D.S.R.

3. Prepare rate Analysis **(any 3)**.

15

- 1) Sand Faced External plaster in 1: 6 CM
- 2) P.C.C. 1 : 3 : 6 for footing
- 3) Brick masonry in CM 1 : 6 115 mm thick
- 4) U.C.R. in CM 1 : 6 for compound wall.

Material Rates				
Cement 350/Bag	Sand 1200/Cum	Aggregate 650/Cum	Brick 4/no	Stone/Rubble 275/Cum
Labour Rates				
Ext Plaster = 85/Sqm	P.C.C. 550/Cum	Brick 260/Sqm	U.C.R. 250/Cum	

4. Prepare Indent of Material **(any 3)**.

15

- 1) R.C.C. 1 : 2 : 4 for quantity of 117 Cum
- 2) Ashlar fine stone Masonry in C.M. 1 : 5 for Quantity of 21 Cum.
- 3) Internal Niroo Finish Plaster in C.M. 1 : 6 for 285 Sqm.
- 4) Brick masonry 230 mm thick in C.M. 1 : 4 for 44 Cum.

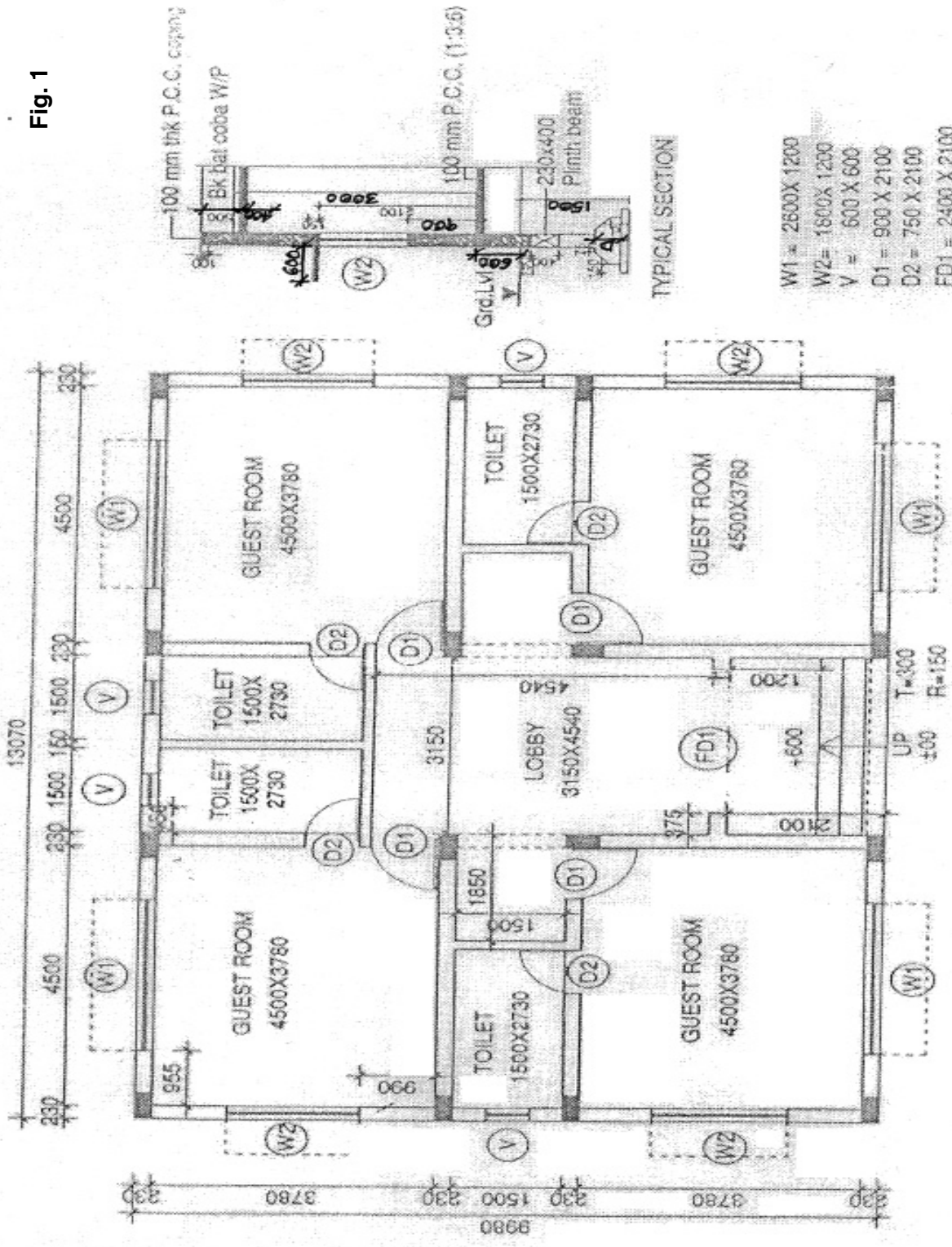
5. Describe the items as Bill of Quantities **(any 2)**.

10

- 1) Excavation in soft soil
- 2) R.C.C. in beams
- 3) Brick masonry wall 230 mm thick.



Fig. 1





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**Fourth Year B.Arch. Examination, 2014**  
**TOWN PLANNING**  
**(2008 Pattern – Bridge Course)**

Time : 3 Hours

Max. Marks : 100

- Instructions :** 1) Question 1 & Question 6 are **compulsory**.  
2) Answer **any three** questions from **each** Section from the **remaining**.  
3) Answers to **each** Section should be written in **Separate** answer books.  
4) Draw neat sketches **wherever** necessary.  
5) Figures to the **right** indicate **full** marks.

SECTION – I

1. Write a detailed note on Garden City concept by Ebenezer Howard. Explain with examples. 14
2. What are the diff. forms of planning ? 12
3. Write short notes on (**any two**). 12
  - a) Sir Patrick Geddes
  - b) Clarence Perry
  - c) C.A. Doxiadis.
4. Explain the classification of towns in India. 12
5. a) Explain the term Town Planning Schemes and its importance in Town Planning. 6  
b) A residential plot measuring 15mx20 meters abuts on a road on its smaller side. Permissible ground coverage is 50%. Floor space Index-2.5. Considering the data given. Calculate maximum nos of buildable floors. 6

SECTION – II

6. Describe various types of surveys in Town Planning. Explain importance of surveys in Planning. 14
7. Write a note on M. R. T. P. Act and explain its importance. 12
8. Explain briefly the provisions of Maharashtra Tree Act and how it is administered to plant, replant and to cut trees. 12

P.T.O.



9. Write short notes (**any 2**). **12**
- a) Completion certificate in Pune Municipal Corporation Area
  - b) Difference between FSI & TDR
  - c) Subdivision of Land.

10. What is Slum Clearance ? Describe two methods of Slum clearance. **12**
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