2013-14  
B.A.R.C.H. (VIII SEMESTER) EXAMINATION  
AR 402, Modern and Contemporary Architecture  
Credits: 3

Maximum Marks: 60  
Duration: 3 Hours

Answer all the questions.  
Suitable assume any missing data.  
All dimensions are in mm.  
Neat and good drafted drawings will be credited more.

<table>
<thead>
<tr>
<th>Q.No.</th>
<th>Question</th>
<th>M.M.</th>
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<tbody>
<tr>
<td>1</td>
<td>Explain salient features of Art Nouveau style. Discuss various forces and factors responsible for the evolution of Art Nouveau style.</td>
<td>12</td>
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<tr>
<td>2 (a)</td>
<td>Describe the impact of industrial revolution on Art Deco Style</td>
<td>6</td>
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<td>2 (b)</td>
<td>Explain design concept of Schröder House, Netherland designed by architect Gerrit Rietveld with sketches.</td>
<td>6</td>
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<td>3</td>
<td>Describe design philosophy and salient features of building designed by architect Norman Foster.</td>
<td>12</td>
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<td>OR</td>
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<tr>
<td>3'</td>
<td>Describe design philosophy and salient features of building designed by architect Jean Nouvel.</td>
<td>12</td>
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<td>4 (a)</td>
<td>Describe teaching methodology and curriculum chart of Bahaus School.</td>
<td>6</td>
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<td>4 (b)</td>
<td>Illustrate Dadaism was born out of negative reactions to the horrors of World War I.</td>
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<td>5</td>
<td>Explain any two of the followings:-</td>
<td>6+6</td>
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<td></td>
<td>a) Cubism</td>
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<td>b) Neo Plasticism</td>
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<td></td>
<td>c) Surrealism</td>
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Answer all the questions.
Assume suitable data if missing.
Notations used have their usual meaning.

Q.1. Define the following terms: (any five) [5x3=15]
   a) Diagnostic approach
   b) Dwelling Unit
   c) Row housing
   d) Non-Conforming land use
   e) Development plan
   f) NCTD
   g) Mixed land use

Q.2.(a) Write down the conditions for permitting Professional activity in mixed use
as per MPD-2021? [05]

Q.2.(b) Explain the method for registration of mixed use premises and payment of
charges. [05]

OR

Q.2' Explain in detail the various activities permitted under mixed land use as per
MPD-2021. [10]

Q.3. What are the various types of surveys conducted for the preparation of a
Master Plan. Explain in detail any two. [10]

Q.4. a) A site measure 397x 268m. If the total built up area on the site is 79797 sqm
and 40% of the achieved FAR is on the first floor, find the total ground
coverage and achieved FAR on the ground floor for the site that has only 2
storied structures. [03]

Q.4.b) The net residential area of a sector is 224000 sqm and is 70% of the total
[06]
area. The gross density is 200 persons/ha. Find the total population, total area and net density of the sector.

Q.4.c) The population of a town is 72000. The shelter less population is 6000. The future increase in population is expected to be 8% in the next 15 years. The present stock of houses have 5% dilapidated housing and another 10% have a life span of 5-15 years. If the houses having remaining life span of less than 5 years are to be put in dilapidated category and need to be replaced, find out the total housing backlog to be projected after 15 years in a long term plan.

Q.5. What are the different types of housing layouts used in urban planning? Explain in detail.
Q.1 Describe various methods of valuation of Immovable properties. Which approach / method of valuation would you adopt to access the Fair Market Value of a self-owned residential house? Discuss in detail.

OR

Q.1* Define Fair Market Value (F.M.V.) and describe the essential characteristics of Fair Market Value.

Q.2 Write the definitions of the following with examples. (any five)
A. Distress Value.
B. Salvage value of structure.
C. Speculative Value.
D. Floor Disposition.
E. Sinking Fund.
F. Belting Method.

Q.3 An old building has been purchased by a person at a cost of Rs.30,000/- excluding the cost of the land. Calculate the amount of annual Sinking fund at 4% interest assuming the future life of the building as 20 years and the scrap value of the building as 10% of the cost of purchase.

Q.4 Define the following terms:
A. Arbitrator
B. Umpire

C. Describe the Arbitration Proceedings, conducted so as to solve the disputes between owner and a contractor, in the light of Arbitration clause in the Building contract.

Q.5 Write the Definitions of the following with examples. (any four)
A. Arbitration.
B. Arbitration Claim.
C. Dominant Heritage.
D. Arbitral Tribunal.

Q.6 Describe in detail the procedure to be followed for Valuation of a property by Land & Building method.

Q.7 A large piece of land, having frontage only on the main road, is situated in a prime area of the city:

(i) Size of the open plot: 150 ft (Road frontage) x 425 ft (Depth)
(ii) Depth of 1st belt may be taken as 80 ft.
(iii) Land rate of 1st belt may be taken as Rs. 10,000.00 per sq. yard.
(iv) Adopt the usual ratios of Depth and Land rates for other belts with reference to the 1st belt.

Find out the Fair Market Value (FMV) of above piece of land, using "Belting Method" of valuation.
2013-14
B.ARCH (VIII Semester Examination)
(Architecture)
Building Economics
(AR-408)

Maximum Marks: 60

Note:
(i) Answer ALL Questions
(ii) All parts of a question should be attempted in one continuation in one copy
(iii) All questions carry equal marks
(iv) Assume any data if not given
(v) Use free hand sketches to explain your answer where-ever necessary

Q. 1
(a) Write down the various definition of economics and identify the most appropriate definition for the contemporary world (4)
(b) Differentiate between Capitalistic Economy and Socialistic Economy (4)
(c) Differentiate between Deductive Method and Inductive Method of study (4)

Q. 2
(a) Define and explain the term Demand in context of economics. List the factors which influence household demand for a commodity (6)
(b) Explain various types of demand elasticity with illustrations (6)

Q. 3
(a) Explain meaning of economic activity in context of subject economics. Also list and explain various economic activities which a man can perform (6)
(b) List and Discuss various factors of production in detail (6)

Q. 4
(a) Explain how capital plays an important role in the development of an economy (6)
(b) What are the various steps in capital formation. Discuss in detail (6)

Q. 4' (a) Discuss in brief the main components of the organized capital market in India (6)
(b) Explain how development of good Infrastructure plays a vital role in the development of a country (6)

Q. 5
(a) Trace out the population growth and demographic trend in India and its effect on housing (6)
(b) Define the term Economic Growth. How do we measure economic growth and in what way it is different from economic development (6)

Q. 5' (a) What are the causes and consequences of Inflation (6)
(b) How do you explain the rapid rise in the cost of habitable plots or land and present slump in the Real Estate market of Aligarh (6)
Q1. What do you understand by ribbed floors and where they are used, explain their advantages and disadvantages over other type of floors?

OR

Q1'. What are the structures in which we use shell roofing, explain different materials used in shell roofing and what are its advantages over other type of roofs?

Q2. Draw on scale, plan and section of an R.C.C dome and detail out its specifications with neat sketches?

Q3. What are the different types of flat slabs, what are their advantages, draw the plan and section of any two of them with proper dimensions and specifications?

OR

Q3'. Draw the plan and two sections of a cinema balcony with proper reinforcement details?

Q4. Draw the plan and section of a folded plate staircase showing the joinery details of landing and floor connection, also draw the balustrade joinery details?
MaximuMarks:60
Note: (i) Answer ALL Questions
(ii) All parts of a question should be attempted in one continuation in one copy
(iii) All questions carry equal marks
(iv) Assume any data if not given

Q. 1 (a) Write down the definition of the project given by Project Management Institute USA and UNIDO (4)
(b) Define and discuss following types of estimates with degree of accuracy and its use
   (a) Order of Magnitude Estimate
   (b) Approximate Estimate
   (c) Detailed Estimate
   (c) Discuss the concept of Ceiling Limit with example (2)

Q. 2 (a) What do you understand by the term specification? Explain different types specification used in industry with example (6)
(b) What are the different general economic consideration to be kept in mind during purchasing (6)

OR

Q. 2' (a) In what ways purchasing of capital equipment is different from routine Purchasing (4)
(b) What are the various issues to be examined during the purchase of construction equipment. (8)
Q.3 (a) Discuss concept of wage and its types in detail

(b) Discuss basic philosophy of various types of rewards offered in lieu of achievement of a worker in the industry

OR

Q.3' (a) Write down detailed account on the evolution of HRM in India

(b) Discuss various elements of HR Planning

Q.4 (a) Define the following terms in detail
   (i) Free Float
   (ii) Total Float
   (iii) Earliest Finish Time
   (iv) Latest Start Time

(b) Number the following network diagram shown in Fig. 1 by Fulkerson Rule and then determine the Critical Path
Q.4 Calculate EST, EFT, LFT, LST, Free Float, Total Float and Interfering Float of the various activities of the following Project Network Shown in Fig. 2

![Network Diagram](image)

Fig. 2

Q.5 Calculate CRASH COST and CRASH TIME of the following project network shown in Fig. 3. Assume normal cost of the project as Rs. 25000 and indirect cost is Rs. 30 per day

![Network Diagram](image)

Fig. 3