2012-13
B.Arch. (Winter Semester) Examination
Modern and Contemporary Architecture
AR 402

Maximum Marks: 60
Credits: 03
Duration: Three Hours

Answer all the questions.

Q.No. Question
1 Explain the term "Art Deco". Describe architectural characteristics of this style with example of Chrysler Building. [12]
2 Describe philosophy of Bauhaus school and explain its role in development of modern movement. [12]
3 Discuss evolution and characteristics of post modern architecture. [12]
4 Describe design philosophy and any two projects of architect "Charles Correa" [12]

OR

4' Describe design philosophy and any two projects of architect "C. P. Kukreja" [12]
5 Explain any two of the followings:-
i) Cubism
ii) Dadaism
iii) Surrealism. [6+6]
2012-13
B.A.R.C.H. (WINTER SEMESTER) EXAMINATION
ARCHITECTURE
URBAN AND RURAL PLANNING
AR 404

Maximum Marks: 60
Credits: 03
Duration: Three Hours

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) Region
   b) Ground coverage
   c) Master Plan
   d) Conforming land use
   e) FAR
   f) NCR
   g) Satellite town

Q.2. What are the governing principles of mixed land use as per Master Plan Delhi-2021? Explain in detail. [10]

OR

Q.2'. What are the activities permitted under Retail shops as per Master Plan Delhi-2021? [10]


Q.4. a) What are the advantages of 'diagnostic approach' in the preparation of Master Plan Delhi-2021? [05]
   b) What are the items covered under socio-economic survey? Explain. [10]

Q.5. Design a 2 BHK residence in a 10m x 15m plot with the following requirements:
   Two bedrooms with attached toilet
   Kitchen
   Living lobby
   Drawing room
   Car parking (1ECS)

   Calculate the total ground coverage for the residence.
1. What is Valuation? Discuss the need for valuation. (10)

2. What is depreciation? Discuss any 2 methods of calculating depreciation. (10)

3. What is Arbitral Tribunal? Discuss its powers and duties. (10)

OR

3'. Discuss the essential features of an Arbitral Award. What is reasoned award? (16)

4. Differentiate between the following terms. Attempt any 4.
   a) Scrap value and Salvage value
   b) Arbitration and Mediation
   c) Sole Arbitrator and Umpire
   d) Capitalized value and Capital cost
   e) Head rent and Profit rent

5. The cost of a motor pump installed in a building is Rs. 20,000/=, having a life of 10 years. Work out its Book value after 4 years if its Salvage value is Rs. 2000/=. Use Straight Line method for calculating depreciation per year. (04)

6. A 3 storied RCC framed building is standing on a plot of 1000sqm. The plinth area of each floor is 400 sqm and its future life is 70 years. The building fetches a gross rent of Rs. 5000/= per month. Work out the Capitalized value of the building on the basis of 6% net yield. For Sinking fund the interest may be taken as 3%. The cost of land may be taken as Rs.400/sqm. Assume any other data for calculating the outgoings such as repairs, maintenance, taxes etc. What is the total value of the property? (10)
Answer all the questions.
Assume suitable data if missing.
Notations used have their usual meaning.

Q.1. Define the following terms (any five):
   a) Social capital
   b) NDP
   c) Macroeconomics
   d) Competition
   e) Utility value
   f) Cost
   g) State enterprise
   h) Wealth
   \[5 \times 3 = 15\]

Q.2. What are the various primary and secondary factors of production?
    Explain in detail.
    \[10\]

Q.3. Explain in detail (any three):
   a) GDP
   b) Deficit
   c) Unemployment
   d) Inflation
   e) Economic Growth rate
   \[3 \times 5 = 15\]

Q.4. Explain the role of the building construction industry in the development of
economy of a nation with particular emphasis on creation of employment opportunities.
   \[10\]

Q.5. Explain the procedure of procurement of a home loan.
    OR

Q.5'. Explain the various steps in the preparation of an economic feasibility report with the help of suitable example.
    \[10\]
2012-2013
B.ARCH (VIII SEMISTER) EXAMINATION
CONSTRUCTION AND MATERIALS-VI
(AR-410)
Credits: 06

Max Marks: 40
Duration: Four Hours

Note: Answer four questions from the following
Assume suitable data wherever required
Draw neat sketch to support your answers

Q1. Draw with dimensions the section of folded plate staircase connecting the ground and first floor of a Residential building. The floor to floor height is 3.2m. Also draw the neat blow ups with dimension showing the necessary fixing and joining details?

Q2. Write short notes on any two of the following:

a) Usage of Hollow Floors
b) Purpose of Retaining Wall
c) Fulcrum beam

Q3. Draw on scale, plan and section of a Ribbed Slab 1200mm spacing and detail out with neat sketches.

OR

Q3'. Draw on scale, plan and section of a Shell Roof with proper details.

Q4. Explain the difference between the Balcony of Cinema and an ordinary balcony and draw the construction and reinforcement details of a cinema balcony.
B. ARCHITECTURE WINTER (VI -SEMESTER) EXAMINATION
(Architecture Design)
(AR-452)
Max Marks: 40
Credits: 08
Duration: Six Hours

Note: (i) Neuferts-data and time saver standards are allowed but provision of these is not the responsibility of the department.
(ii) Good drafting shall carry weightage.
(iii) Assume any suitable data wherever desirable.

Design problem

Khurja is fast developing town being located on the main highway and having well established pottery industry. It also has regional importance. It has a local hospital comprising OPDS related to paediatrics, gynaecology, medicine, surgery, ENT, ophthalmology, and orthopaedics. U.P. government desires to develop this hospital further by adding emergency services and indoor-patient department with 30 beds each for above departments besides 50 beds for emergency and epidemics care. It has appointed you as architect for the project considering your past works/expertise in hospital design in U.P. as per local laws/byelaws and socio-climatic conditions. It also expects you to design it as a model so that similar facilities can also be developed in other such towns. It has provided a plot of rectangular shape measuring 100m*200m located on east side of G.T. road running north-south, existing hospital being located on the left side with no existing expandable space.

For the above project provide the following

1. List of requirements with area chart. 08
2. Site plan with parking and landscaping. 06
3. Suitable plans to explain your design. 12
4. Section/sections 04
5. Elevations and/ views 04

Viva shall also be conducted to provide you opportunity to explain your concept/design. 06

- Short side being on the road.
<table>
<thead>
<tr>
<th>Q.No.</th>
<th>Question</th>
<th>M.M.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1(a)</td>
<td>Write down definition of ‘Project’ given by Project Management Institute USA and UNIDO.</td>
<td>[04]</td>
</tr>
<tr>
<td>(b)</td>
<td>Explain the concept of Interest in detail and how Interest affects the indirect cost of the project.</td>
<td>[04]</td>
</tr>
<tr>
<td>(c)</td>
<td>Explain the concept of “Ceiling” limit with a suitable example.</td>
<td>[04]</td>
</tr>
<tr>
<td>2(a)</td>
<td>Write down objectives of purchasing in detail.</td>
<td>[06]</td>
</tr>
<tr>
<td>(b)</td>
<td>Define and discuss following types of estimates with suitable examples</td>
<td>[06]</td>
</tr>
<tr>
<td>(i)</td>
<td>Approximate Estimate (ii) Detailed Estimate</td>
<td></td>
</tr>
</tbody>
</table>

OR

| 2'(a)| In what ways industrial purchasing different from household purchasing?.                                                                    | [04] |
| (b) | What are the various issues to be examined during the purchase of construction equipment?                                                     | [08] |
| 3(a) | Explain the concept of wages and its classification in detail.                                                                             | [06] |
| (b)  | Discuss various types of achievements and corresponding rewards offered in industry.                                                         | [06] |

OR

| 3'(a)| Write down detailed account on the evaluation of Human Resource Management in India                                                          | [06] |
| (b) | Discuss various elements of Human Resource Planning (HRP)                                                                                | [06] |
| 4(a) | Draw network diagram of the following activities:                                                                                        | [05] |

Contd......2
Activity
A – Locate the site where several buildings are available on rent
B – Select a building where the office can be accommodated
C – Engage the cleaners
D – Clean the office area
E – Decorate the interior
F – Advertise the opening of the new office
G – Prepare the list of invitees for the opening day
H – Send the invitations
I – Formally open the office

4(b) Draw the network diagram of the following activities and calculate Critical Path.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Duration in Days</th>
<th>Activity</th>
<th>Duration in Days</th>
<th>Activity</th>
<th>Duration in Days</th>
</tr>
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<tbody>
<tr>
<td>1–2</td>
<td>10</td>
<td>3–9</td>
<td>17</td>
<td>7–10</td>
<td>14</td>
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<tr>
<td>1–6</td>
<td>12</td>
<td>4–6</td>
<td>0</td>
<td>8–10</td>
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<td>18</td>
<td>4–7</td>
<td>15</td>
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<tr>
<td>2–4</td>
<td>13</td>
<td>5–9</td>
<td>10</td>
<td>8–11</td>
<td>17</td>
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<tr>
<td>2–6</td>
<td>16</td>
<td>6–7</td>
<td>18</td>
<td>9–12</td>
<td>21</td>
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<tr>
<td>3–6</td>
<td>8</td>
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<td>22</td>
<td>10–11</td>
<td>22</td>
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<tr>
<td>3–5</td>
<td>19</td>
<td>7–8</td>
<td>12</td>
<td>11–12</td>
<td>18</td>
</tr>
</tbody>
</table>

OR

4c) Calculate EST, EFT, LFT, LST, Free Float, Total Float and Interfering Float of various activities of the following project.
Draw the network diagram of the following activities and calculate crash Cost and crash Time of the following project

<table>
<thead>
<tr>
<th>Activity</th>
<th>Normal Duration $T^N$ in days</th>
<th>Normal Cost $C^N$ in Rupees</th>
<th>Crash Duration $T^C$ in days</th>
<th>Crash Cost $C^C$ in Rupees</th>
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<td>200</td>
<td>10</td>
<td>200</td>
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<tr>
<td>1 – 2</td>
<td>20</td>
<td>200</td>
<td>20</td>
<td>200</td>
</tr>
<tr>
<td>1 – 3</td>
<td>40</td>
<td>1800</td>
<td>40</td>
<td>1800</td>
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<td>1 – 6</td>
<td>28</td>
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<td>580</td>
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<td>2 – 4</td>
<td>8</td>
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</tr>
<tr>
<td>3 – 6</td>
<td>10</td>
<td>100</td>
<td>6</td>
<td>260</td>
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<tr>
<td>4 – 5</td>
<td>30</td>
<td>3000</td>
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<td>6600</td>
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<td>8</td>
<td>3400</td>
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<td>14</td>
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<td>6 – 8</td>
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<td>200</td>
<td>5</td>
<td>500</td>
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<td>8 – 11</td>
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<td>200</td>
<td>3</td>
<td>320</td>
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<tr>
<td>9 – 10</td>
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<tr>
<td>10 – 11</td>
<td>4</td>
<td>300</td>
<td>4</td>
<td>300</td>
</tr>
<tr>
<td>11 – 12</td>
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<td>100</td>
<td>2</td>
<td>180</td>
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