1. Discuss in detail the architectural character of buildings constructed in the Art Nouveau period.

OR

2. Differentiate between architectural features of Art Nouveau and Art Deco.

2. Explain the theory of Deconstructivism in Architecture. Discuss the contribution of architect Daniel Libeskind to deconstructivism.

OR

3. Discuss the life-work of architect Le Corbusier and his contributions to modern architecture using examples of one building designed by him.

3. Outline the architectural ideology developed during the De Stijl movement.

4. Discuss the Post Modern Architectural Movement. What were the reasons behind the conceptualization of the post-modernist thought in architecture?

5. Discuss ONLY ONE of the following in brief:
   a) Brutalism and Modern Architecture.
   b) Walter Gropius and the Bauhaus School.
2016-17
B.Arch. (Winter Semester) Examination
Architecture
Urban and Rural Planning
AR 404N

Maximum Marks: 60 Credits: 04 Duration: Two Hours

Answer all the questions. Assume suitable data if missing. Notations used have their usual meaning.

Q.1.a) Write in brief about the following terms (any four): [4x4=16]
i) Formal region
ii) Dwelling Unit
iii) Mixed land use
iv) Zoning
v) FAR
vi) Conurbation

Q.2. What are the various types of surveys conducted for the preparation of a Master Plan? Explain in detail. [15]

OR

Q.2'. What are the various types of zoning in a town? Explain in detail. [15]

Q.3.a) A residential sector measures 1200 m x 800 m. The population of the sector is 15000. The net residential area is 60%. Find the gross and net residential density of the sector. [Take 1 acre = 4000 sqm] [07]

If the distribution of population is as under:

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Income Group</th>
<th>%age Population</th>
<th>Total no. of plots</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>HIG</td>
<td>15</td>
<td>?</td>
</tr>
<tr>
<td>2.</td>
<td>MIG</td>
<td>35</td>
<td>?</td>
</tr>
<tr>
<td>3.</td>
<td>LIG</td>
<td>30</td>
<td>?</td>
</tr>
<tr>
<td>4.</td>
<td>EWS</td>
<td>20</td>
<td>?</td>
</tr>
</tbody>
</table>

P.T.O.
Find the total number of plots needed by each income group.

(Average size of the family = 05 persons)

Q.3.b) The population of a town is 40000. The shelter less population is 5000. The decadal growth of population is expected to be 10% in the next 20 years. The housing survey has given the following picture regarding the quality of housing stock.

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Future life</th>
<th>Gradation of building</th>
<th>% of dwelling units</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>50yrs and above</td>
<td>Very good</td>
<td>35</td>
</tr>
<tr>
<td>2.</td>
<td>25-49 yrs</td>
<td>good</td>
<td>30</td>
</tr>
<tr>
<td>3.</td>
<td>15-24 yrs</td>
<td>moderate</td>
<td>20</td>
</tr>
<tr>
<td>4.</td>
<td>5-14yrs</td>
<td>bad</td>
<td>10</td>
</tr>
<tr>
<td>5.</td>
<td>Less than 5 yrs</td>
<td>Unfit for habitation hence to be replaced</td>
<td>5</td>
</tr>
</tbody>
</table>

If the dwelling units 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 20 years in a long term plan.

(Average no. of persons/dwelling unit = 05 persons)

Q.4. What are the various types of regions? Explain the need of regional planning in a developing country like India. Elaborate by citing relevant examples.
2016-17
B.Arch. (Winter Semester) Examination
Architecture
Building Construction Management & Economics
AR-412

Maximum Marks: 60
Credits: 04
Duration: Two Hours

Answer any 03 questions from SECTION A and all questions from SECTION B
Assume suitable data if missing.

Q.No. Question

SECTION A

1. What is Life cycle of a building? Explain the role of Architect as project manager in controlling the life cycle cost of building as well as in context with the three phases/stages during building design and construction.

2. Define various types of equipment used in the construction industry, with respect to their usage and criteria for selection.

3. What are different behaviour modification techniques that can be adopted for motivation of team members/subordinates in an organization?

4. (a) What measures should be followed on site to control the quality of construction work?

4. (b) Explain different types of costs associated with a project and cost optimization technique, in brief.

SECTION B

5. The most optimistic time, most likely time and pessimistic time estimates for the activities are given below in the table, for a network.

5. (a) Draw the network.

5. (b) Name different possible paths.

5. (c) Find out the average or expected time for this project.

5. (d) Designate the critical path for this project.

M.M.
The different activities and their times are as follows:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Optimistic time</th>
<th>Most Likely time</th>
<th>Pessimistic time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2</td>
<td>7</td>
<td>9</td>
<td>13</td>
</tr>
<tr>
<td>1-3</td>
<td>5</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>1-4</td>
<td>6</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>2-5</td>
<td>5</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>3-7</td>
<td>11</td>
<td>14</td>
<td>17</td>
</tr>
<tr>
<td>4-6</td>
<td>5</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>6-9</td>
<td>2</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>5-8</td>
<td>2</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>5-7</td>
<td>4</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>7-10</td>
<td>6</td>
<td>11</td>
<td>17</td>
</tr>
<tr>
<td>8-10</td>
<td>9</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>9-10</td>
<td>11</td>
<td>14</td>
<td>20</td>
</tr>
</tbody>
</table>

Various activities for a network are shown below in the table. The project overhead cost are @ 400 per day. In addition to the overheads, there is an outage loss of Rs. 200 per day up to and including 13th day and Rs. 300 per day thereafter. Find the cost duration relationship and specify the optimum project duration and minimum cost.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Normal Duration (days)</th>
<th>Normal Cost (Rs.)</th>
<th>Crash Duration (days)</th>
<th>Crash Cost (Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2</td>
<td>9</td>
<td>8000</td>
<td>7</td>
<td>9500</td>
</tr>
<tr>
<td>1-3</td>
<td>6</td>
<td>5000</td>
<td>4</td>
<td>5500</td>
</tr>
</tbody>
</table>
2016-2017
B.ARCHITECTURE WINTER (VIII -SEMISTER) EXAMINATION
(ARCHITECTURE DESIGN-V)
(AR-452N)
Credits: 0*7
Max Marks: 40
Duration: Six Hours

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

Design problem

Hathras is fast growing town being located on the NH-93 Agra-Aligarh-
Muradabad high way and having fast developing industry. It also has regional
importance being district headquarter. U.P. government desires to develop a local
hospital comprising six OPDS, related to treatment of common ailments. such as
Paediatrics, Gynaecology, Medicine, Surgery, Ophthalmology and Orthopaedics
also having small diagnostic centre(x-ray, ultrasound and path lab) and
emergency services with 24 beds for first-aid and epidemic care in two blocks of
12 beds each for male and female. 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 has provided a plot of rectangular
shape measuring 80m*120m located on east side of the main road running north-
south.

For the above project provide the following

1. List of requirement 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.