End Semester Examination, May 2016  
Bachelor of Architecture – First Semester  
STRUCTURAL DESIGN-I (AR-105)  

Time: 3 hrs.  
70  
Max Marks:  
No. of pages:  
1  

Note: Attempt **FIVE** questions in all; **PART-A is compulsory**. Attempt any **FOUR** questions from **PART-B**. Each questions carry equal marks.  

**PART-A**  
Q.1 Attempt **any seven** questions of the following:  
a) What are the different types of supports?  
b) Name different types of loads.  
c) Define bending moment.  
d) Define shear force.  
e) Explain parallelogram law of force.  
f) Define center of gravity.  
g) Explain in brief the theorem of parallel axis.  
h) What is point of contra flex use?  
i) What are the two methods of finding forces in different members of a truss?  
j) Give an example of a UDL and point load in the seam.  

2x7  

**PART-B**  
Q.2  
a) What do you understand by principle of transmissibility of force?  
3  
b) Find the resultant of forces as show in the figure:  

c) Differentiate between coplanar forces, concurrent forces with the help of free hand diagram.  
4  

Q.3  
Find out reactions and draw BMD and SFD:  

14
Q.4 Find C.G of the figure below:

a) 

Q.5 Find the moment of inertia of a 7 section with flange as 150 mm × 50 mm and web as 150 mm × 50 mm about X-X and Y-Y axes through the center of gravity of the section:

Q.6 Find forces in member AB, AE and FC of the truss shown below:
PART-A

Q.1 a) Write the correct tense of the verb to complete the sentences:
   i) Every Monday, Radhika __________ (drive) her son for football practice.
   ii) Shhh! Be quiet! The baby ___________ (sleep).
   iii) I am sorry I cannot hear what you __________ (say) because everyone _________ (talk) so loudly.
   iv) Don’t forget to take your umbrella because it ___________ (rain).

b) Convert the following sentences to passive voice:
   i) Radha is washing dishes.
   ii) He is a good boy.
   iii) The professor is teaching communication skills.
   iv) Tom painted the house red.
   v) Sarah is writing the scripts.

PART-B

Q.2 You recently attended the Science, Technology and Art Exhibitions organized by Manav Rachna Educational Institutions. Write a report (in about 300 words) detailing your experience and highlights of the events. (assume any necessary details if required). 20

Q.3 Write a paragraph on each of the following topics:
   a) Use of information technology in the field of architecture.
   b) Time management and its importance in leading a productive life.
   10x2

Q.4 You recently received information about a vacancy for junior architect in your dream company. Write an e-mail to apply for the job. Also prepare your CV which shall be sent as an attachment to the said e-mail.
   20

Q.5 Explain the Do’s and Don’ts for participating in a group discussion. How are group discussions helpful in business?
   20
PART-A
Q.1 Define:
   a) Elastic limit
   b) Volumetric strain
   c) Poisson’s ratio
   d) Bending moment and shear force
   e) Bulk modulus
   f) Shear stress
   g) Lateral strain

PART-B
Q.2 a) Two wire, one of steel and other of copper are of same length and are subjected
to the same tension. If diameter of copper wire is 4 mm, find the diameter of steel
wire if they are elongated by same amount.
   Take E_{steel} = 200 GPa and E_{copper} = 150 GPa

Q.3 A 6m long hollow bar of circular section has 150 mm diameter for a length of 4 m,
while it has 120 mm diameter for a length of 2 m. The base diameter is 70 mm
throughout. Find elongation of bar if subjected to tensile force of 300 kN. Take E =
200 GPa.

Q.4 a) Draw shear force and bending moment diagram for the beam shown below:
b) Find the value of shear force and bending moment at a point 2 m from left support for the beam shown below:

Q.5 A fixed beam AB of span 'l' carries a point load of WkN at a distance of 'a' from A determine the value of fixing moment of the beam shown below:

Q.6 A continuous beam ABC, 10 m long rests on three supports A, B and C at the same level. Determine the moment over the beam and draw bending moment diagram using three moment theorem.
**End Semester Examination, May 2016**  
Bachelor of Architecture – Second Semester  
SOCIOLOGY AND PSYCHOLOGY OF ARCHITECTURE(AR-207)

Time: 3 hrs.  
Max Marks: 70

No. of pages: 1

Note: Attempt ANYFIVE questions in all; Q.1 is compulsory. Attempt ANYTWO questions from PART-A and TWO questions from PART-B.

Q.1 Write short notes on:
   a) Image of city and its 5 elements of identification.
   b) Cultural identity.
   c) Ethnocentrism.
   d) Concepts and factors of social and cultural changes in relations to architecture.
   e) Theory of culture lags.
   f) Territorial spaces and its types.
   \[5 \times 6\]

**PART-A**

Q.2 What is Maslow’s law of hierarchy of need? Explain with suitable diagram. \[10\]

Q.3 What to do you understand by sociology and how it is important for architecture? \[10\]

Q.4 What is culture and concept of culture? Explain material and non-material culture. \[10\]

**PART-B**

Q.5 Explain poverty and ghettoization with reference to slums. \[10\]

Q.6 Explain hierarchy of spaces, proxemics and territoriality and how do they influence the design of built environment. \[10\]

Q.7 Explain the theory and classification of territoriality according to “ALTMAN”. \[10\]
End Semester Examination, May 2016
Bachelor of Architecture – Second Semester
CLIMATOLOGY (AR-209)

Time: 3 hrs. Max Marks: 70
No. of pages: 1

Note: Attempt ANY FIVE questions in all; Q.1 is compulsory. Attempt ANY TWO questions from PART-A and TWO questions from PART-B. Each questions carry equal marks.

Q.1 Write short notes on the following:
  a) Micro and Macro climate.
  b) Climate and Weather.
  c) Trombe wall.
  d) Infiltration.
  e) Shading devices for the building.
  f) Egg crate device.
  $5\times6$

PART-A

Q.2 What are the elements of climate? Explain the importance of these elements in determining the climatic features of a particular place for consideration in climate responsive building design. 10

Q.3 What are the major climate zones in India? Explain the characteristics of a warm humid climate zone in detail, along with climate design recommendation for designing shelters in such regions. Illustrate with sketches. 10

Q.4 Differentiate between direct gain, indirect gain and isolated gain in passive solar heating. 10

PART-B

Q.5 What is the importance of ventilation and air movement in building? Explain. 10

Q.6 Define climatology and discuss its nature and scope. 10

Q.7 What do you understand by solar orientation? Explain different types of shading devices and techniques used to cut Sun. 10
End Semester Examination, May 2016
Bachelor of Architecture – Third Semester
HISTORY OF ARCHITECTURE-I (AR-304)

Time: 3 hrs.  
Max Marks: 60

No. of pages: 1

Note: Attempt ANY FIVE questions in all; Q.1 is compulsory. Attempt ANY TWO questions from PART-A and TWO questions from PART-B. Marks are indicated against each question.

Q.1 Write an easy tracing Egyptian civilization from the time of the mastabas to the great pyramids. Discuss religion was integral to Egyptian life.  
20

PART-A

Q.2 The first great civilization all grew up in river valleys. What are the civilization and their geographic locations on the world map? Explain River valley civilizations in brief.  
10

Q.3 The Romans did not invent drainage, sewers, the alphabet or roads, but they did develop them. They did invent under floor heating, concrete and the calendar that our modern calendar is based on. Concrete played an important part in Roman building; help them construct structure like aqueducts that included arches. Explain with examples of architecture, Roman achievements in engineering.  
10

Q.4 Write short notes on (any two):
a) Greek Theaters.  
b) Sanchi Stupa.  
c) Greek Orders.  
d) Vedic Village.  

PART-B

Q.5 Write an easy comparing the churches planning and architecture characteristics of early Christian architecture and Byzantine architecture.  
10

Q.6 Write an essay tracing achievements in engineering and architecture by Greek and Romans.  
10

Q.7 Write an essay on the Parthenon, a great temple built in Athens that Greece built on the acropolis.  
10
End Semester Examination, May 2016
Bachelor of Architecture – Third Semester
STRUCTURE DESIGN-III (AR-305)

Time: 3 hrs
Max Marks: 60
No. of pages: 2

Note: Attempt FIVE questions in all; Part A is compulsory. Attempt any FOUR questions from Part B.

PART-A

Q.1 a) Distinguish between centre of gravity and centroid with a relevant example.

b) Define shear force and bending moment. Write the sign conventions of shear force and bending moment.

c) What is theory of simply bending and assumptions made in derivation of bending equation.

d) Explain method of section for analyzing a truss.

e) What are the important properties of materials needed to design a structure? Explain any two of them.

4×5

PART-B

Q.2 Calculate $I_{xx}$ and $I_{yy}$ for the T-section shown in figure:

![T-section diagram]

Q.3 Draw the shear force and bending moment diagram for the given beam:

![Beam diagram]

Q.4 a) Write the relationship between number of members and joints in a determinate truss.

b) Solve the truss by method of joints.

2
Q.5  
   a) Define neutral axis.  
   b) A rectangular beam 500 mm deep is singly supported over a span of 4 m. Determine the max bending stress if it carries a udl of 15 kN/m. Take $I = 5 \times 10^4$ mm$^4$.

Q.6  
   a) Differentiate between a short column and long column.  
   b) How does the end condition affect the effective length of column?  
   c) A mild steel tube 4 m long 30 mm internal diameter and 4 mm thick is used as a strut with both ends fined. Find the collapsing load. Take $E = 2 \times 10^5$ N/mm$^2$. 


End Semester Examination, May 2016  
Bachelor of Architecture – Third Semester  
SURVEYING AND LEVELING (AR-306)

Time: 3 hrs.                    Max Marks: 40
No. of pages: 1

Note: Attempt ANY FIVE questions in all; Q.1 is compulsory. Attempt ANY TWO questions from PART-A and TWO questions from PART-B. Each questions carry equal marks.

Q.1 Write short notes on (any four):
   a) What is the use of plumb bob?
   b) List various type of chains used in surveying?
   c) What is a field book?
   d) Describe mean sea level.
   e) Define height of instrument.
   2x4

PART-A

Q.2 During a traverse survey ABCDA the following interior angles were measured with a compass.

<table>
<thead>
<tr>
<th>Angle</th>
<th>Value(°)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>75</td>
</tr>
<tr>
<td>B</td>
<td>120</td>
</tr>
<tr>
<td>C</td>
<td>80</td>
</tr>
<tr>
<td>D</td>
<td>85</td>
</tr>
</tbody>
</table>

a) If bearing of line AB is 99°, what are the bearings of remaining lines of traverse?
   b) What points should be remembered while selecting a survey station?
   4x2

Q.3 a) A line CD has to be prolonged beyond a high building. A perpendicular DE 150 m long is laid out at D. From E, two lines EF and EG are ranged at an angles of 45° and 60° respectively. Find the lengths of EF and FG, so that F and G are on the line which CD produced. Also find the distance of DF.

   5
b) Explain the procedure for setting out perpendicular offset by method of swinging. Also draw a suitable sketch.

Q.4 a) Explain the procedure of working from whole to part with the help of a neat sketch.
b) How is surveying useful for architects?

PART-B

Q.5 a) Describe any two methods of indirect contouring with neat sketches.
b) Explain various uses of contour maps.

Q.6 a) For the data tabulated below compute the height of instrument and RL's at each location using Height of Instruments Method. The R.L of A = 100m.

<table>
<thead>
<tr>
<th>Location</th>
<th>Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Back Sight</td>
</tr>
<tr>
<td>A</td>
<td>2.45</td>
</tr>
<tr>
<td>E1</td>
<td></td>
</tr>
<tr>
<td>CP1</td>
<td>1.43</td>
</tr>
<tr>
<td>E2</td>
<td></td>
</tr>
<tr>
<td>CP2</td>
<td>1.38</td>
</tr>
<tr>
<td>B</td>
<td></td>
</tr>
</tbody>
</table>

b) Describe the basic principle of global positioning system (GPS) survey.

Q.7 a) Explain the factors on which the choice of contour interval depends.
b) What is local attraction? List a few objects which cause local attraction.
Q.1 What are the impacts of the industrial revolution on architecture? Trace the various architects started using R.C.C. as a building material and use of technologies in architecture.

Q.2 Explain the famous statements of following architects with their contribution to modernism in architecture:
   a) Le Corbusire.
   b) Robert Venturi.

Q.3 Explain the statement of Mies Vander Rohe and his contribution to modernism in architecture.

Q.4 Explain the famous statement of F.L. Wright and his contribution to modernism in architecture.

Q.5 Explain the theories of Art Noveau and Bauhaus and their expression of architects.
Q.6 Explain the theories of Form follows function and Function follows forms with their expression of architects.  

Q.7 Compare Deconstruction movement and structuralism and their expression of architects.
Q.6 Explain sewage system of your own house with appropriate plan.  

Q.7 What is solid waste management? Explain in brief its composition, quantity, collection, transportation and final disposal in urban area.  

---

End Semester Examination, May 2016  
Bachelor of Architecture – Fourth Semester  
HISTORY OF ARCHITECTURE-II (AR-404)

Time: 3 hrs
Max Marks: 60
No. of pages: 1

Note: Attempt FIVE questions in all; Q.1 is compulsory. Attempt any TWO questions from Part A and TWO questions from Part B. Each question carries equal marks.

Q.1 Explain the following with examples:
   a) Renaissance architecture.
   b) Early Renaissance and High Renaissance.
   c) Gothic Revival.
   d) Church Architecture at Early Christian and Early Byzantine.
   e) Contemporary Architecture.  

   PART-A

Q.2 Compare the domes of churches of various time periods like Florence Cathedral, St. Peter Rome, Hagia Sophia and Pizza Cathedral and trace their architectural relevance.  

Q.3 Compare church architecture of Renaissance, Gothic, Byzantine to Early Christian and Basilican churches of Rome. Trace examples from different periods with architecture characteristics and construction detail.  

Q.4 Explain different modern groups of architects, their philosophy, technology and materials used by them in architecture.  

   PART-B

Q.5 Trace an essay on scientific technological progress invention of new materials after industrial revolution in architecture from 19th century to 21st century.  

Q.6 How modernism saw invention of R.C.C and its revolutionary effect on construction?  

Q.7 Explain different elements of church architecture and their significance in structure system of the following (any four):
End Semester Examination, May 2016
Bachelor of Architecture – Forth Semester
STRUCTURAL DESIGN-IV (AR-405)

Time: 3 hrs.                    Max Marks: 60
No. of pages: 1

Note: Attempt ANYFIVE questions in all; PART-A is compulsory. Attempt ANY FOUR questions from PART-B.

PART-A

Q.1 Define/Explain the following:
   a) Pedestal Column.
   b) Flat slab and its types.
   c) Open slab and its types.
   d) Show typical arrangement of pitch and transverse steel in columns.
   e) Flight of staircase.
   f) Draw stress and strain diagram for a single reinforced rectangular beam.
   g) Draw a neat sketch of dog-legged staircase.
   h) Ductility.
   i) Long column.
   j) Riser and tread.
   **2x10**

PART-B

Q.2 A Rectangular reinforced concrete beam has a width of 200 mm and is reinforced with 2 bars of 20 mm diameter at an effective depth of 400 mm. If M-20 grade concrete and Fe-415 HYSD bars are used, estimate the ultimate moment of resistance of the section.
   **10**

Q.3 Design a one-way slab with a clear span of 3.5 m, simply supported on 200 mm thick concrete masonry walls to support a live load of 5 kN/m² Adopt M20 grade of concrete and Fe-415 HYSD bars.
   **10**
Q.4 A rectangular reinforced concrete column of cross-sectional dimensions 300 mm by 600 mm is to be designed to support an ultimate load of 2000 kN. Design suitable reinforcement in the column using M20 grade concrete and Fe-415 HYSD bars.

Q.5 List down different types of staircase with neat sketches.

Q.6 List down the assumptions of working stress method and Limit state method.

Q.7 A straight staircase is made of structurally independent tread slabs, cantilevered from a reinforced concrete wall. Given that the riser is 150 mm, tread is 300 mm and with of flight is 1.5 m, design a typical tread slab. Apply the live load 5 kN/m². Use M20 concrete and Fe250 steel. Assume mild exposure conditions.

Q.8 Explain different types of slabs with the help of neat sketches.
Q.1 Explain OHM's Law and KIRCHOFF's Law.
10

Q.2 Write different types of materials used for wiring in buildings.
10

Q.3 Write short notes on the following:
   a) MCB.
   b) Distribution Board.
   c) Earth-leakage circuit breaker (ELCB).
   d) Electrical Meters.
   2½x4

Q.4 Explain the following in brief:
   a) Overload.
   b) Short circuit.
   c) Earth fault.
   d) Illumination level.
   2½x4

Q.5 Explain types of luminaire used for interior and exterior lighting in building.
10

Q.6 Draw an energy flow diagram for electrical installation from generation to distribution.
10
End Semester Examination, May 2016
Bachelor of Architecture – Forth Semester
THEORY OF ARCHITECTURE(AR-407)

Time: 3 hrs.                    Max Marks: 60
No. of pages: 1

Note: Attempt ANY FIVE questions in all; Q.1 is compulsory. Attempt ANY TWO questions from PART-A and TWO questions from PART-B.

Q.1 What are the design movements in Architecture starting from 18th to 21st century? Trace the comparative analysis theories, expressions and relevance of architecture movement as a social phenomenon.
20

PART-A

Q.2 What is structural dynamism? Justify visual dynamism and structural dynamism generates a symbiotic forms.
10

Q.3 How modernism is different from post modernism in architecture. Trace theories and expressions of four post-modernist architects.
10

Q.4 Explain the philosophy of 3 Contemporary Architects.
10

PART-B

Q.5 Compare different theories and expression of architecture movements. Trace the reason for evolution of architecture movement and architects involved.
Attempt any two of the following:
   a) High tech architecture.
b) Minimalism in architecture.
c) Diagrid structure.
d) Symbolism in architecture.  5x2

Q.6 Compare different theories and expression of architecture movements.
Attempt any two of the following:
a) Critical regionalism.
Q.7 Sketch the architecture of Contemporary Architects tracing theories and expressions. Attempt any two of the following:
   a) Zaha Hadid.
   b) Santiago Calatrava.
   c) Daniel Libeskind.
   d) Ranzo Piano.

End Semester Examination, May 2016
Bachelor of Architecture – Fourth Semester
VERNACULAR ARCHITECTURE (AR-408)

Time: 3 hrs.                     Max Marks: 60
No. of pages: 1

Note: Attempt any FIVE questions in all; Q.1 is compulsory. Attempt any TWO questions from PART-A and TWO questions from PART-B.

Q.1 Explain the term “VERNACULAR ARCHITECTURE” in the detail. What are the different types of structures found in Indian vernacular architecture and give reasons behind it with suitable sketches.
   20

PART-A

Q.2 The role and importance of social, cultural, politics, economic, climatic and technological factors are the important determinant of vernacular architecture. Discuss.
   10

Q.3 Discuss different local material used in different climates of India for vernacular architecture.
   10

Q.4 Sketch all typologies of Kath-Khuni houses of Himachal Pradesh.
   10

PART-B

Q.5 Draw and explain any four typologies of wooden and wood-and-stone temples in Himachal Pradesh.
   10

Q.6 How vernacular architecture is influences by: (Attempt ANY TWO)
   a) Local needs.
   b) Local construction material.
   c) Local traditions.
   5x2

Q.7 Draw plan of Aukta House (in Old Jubbal, Shimla), one of the largest residential built form. Also explain its features and material used in detail with sketches.
   10
End Semester Examination, May 2016
Bachelor of Architecture – First Semester
STRUCTURAL DESIGN-I (AR-105)

Time: 3 hrs.  Max Marks: 70
No. of pages: 1

Note: Attempt FIVE questions in all; PART-A is compulsory. Attempt any FOUR questions from PART-B. Each questions carry equal marks.

PART-A

Q.1 Attempt any seven questions of the following:
   a) What are the different types of supports?
   b) Name different types of loads.
   c) Define bending moment.
   d) Define shear force.
   e) Explain parallelogram law of force.
   f) Define center of gravity.
   g) Explain in brief the theorem of parallel axis.
   h) What is point of contra flex use?
   i) What are the two methods of finding forces in different members of a truss?
   j) Give an example of a UDL and point load in the seam.

   2x7

PART-B

Q.2
   a) What do you understand by principle of transmissibility of force?
   3
   b) Find the resultant of forces as show in the figure:
c) Differentiate between coplanar forces, concurrent forces with the help of free hand diagram.

Q.3 Find out reactions and draw BMD and SFD:

Q.4 Find C.G of the figure below:

a) 

b) Find center of gravity of a 100 mm × 150 mm × 30 mm T-sector:

Q.5 Find the moment of inertia of a 7 section with flange as 150 mm × 50 mm and web as 150 mm × 50 mm about X-X and Y-Y axes through the center of gravity of the section:
Q.6 Find forces in member AB, AE and FC of the truss shown below:

End Semester Examination, May 2016
Bachelor of Architecture – First Semester
ENVIRONMENTAL STUDIES (CH-202)

Time: 3 hrs Max Marks: 50
No. of pages: 2

Note: Attempt SIX questions in all; Part A is compulsory. Attempt any FIVE questions from Part B.

PART-A

Q.1 Multiple choice questions:
   a) Which gas of the stratosphere provides protection to our life?
      i) Nitrogen  ii) Hydrogen  iii) Ozone  iv) Argon
   b) Which of the following soil is the best for plant growth?
      i) Sandy soil  ii) Clay  iii) Gravel  iv) Loamy soil
   c) What is the major raw material for biogas?
      i) Plant leaves  ii) Cow dung  iii) Mud  iv) Grass
   d) A biosphere reserve conserves and preserves:
      i) Wild animals  ii) Wild land  iii) Natural vegetation  iv) All of the above
   e) Sanctuaries are established to:
      i) Rear animals for milk  ii) Entrap animals  iii) Protect animals  iv) None of the above
   f) Which one of the following is not a fossil fuel?
      i) Natural gas  ii) Petrol  iii) Coal  iv) Uranium
   g) Red Data Book provides a list of:
      i) Advanced plants  ii) Rare, endangered or endemic species
      iii) Disease resistant animals  iv) None of the above
   h) Floods can be prevented by:
      i) Afforestation  ii) Deforestation
iii) Tilling the land   iv) Removing the top soil
i) Which of the following lists includes ALL renewable resources?
   i) Geothermal, wind, nuclear, solar
   ii) Nuclear, natural gas, oil, coal
   iii) Hydroelectric, solar, biomass, wind, geothermal
   iv) Solar, nuclear, wind, natural gas
j) What type of energy is derived from heated groundwater?
   i) Solar energy   ii) Geothermal energy
   iii) Hydroelectric energy   iv) Nuclear energy

**PART-B**

Q.2 Explain the concept of equitable use of resources for sustainable development. How can it help in conservation of natural resources?

Q.3 What are the effects of over-utilization of surface and ground water? Describe the strategies to conserve water.

Q.4 Describe the process of ecological succession with an example.

Q.5 Give the biogeographical classification of India and explain that India is a mega-diversity nation.

Q.6 Write short notes on:
   a) Air pollution.
   b) Solid waste management.

Q.7 What is Environment Protection Act? What are the issues involved in enforcement of environmental legislation?

Q.8 How is human health related to environment? Discuss the effects of population explosion on environmental resources.
End Semester Examination, May 2016
B. Sc. (Interior Design) – First Semester
COLOR IN DECOR (351.102)

Time: 3 hrs Max Marks: 40
No. of pages: 1

Note: Attempt FIVE questions in all; Q.1 is compulsory. Attempt any TWO questions from Part A and TWO questions from Part B. Each question carries equal marks.

Q.1 Write short notes on:
   a) Color sensation.
   b) Additive color mixing method.
   c) Difference between value and intensity of a color.
   d) Color symbolism.

PART-A

Q.2 Draw color wheel and explain how all colors can be created by using the three primary colors.

Q.3 Describe the research done on the psychology of color as studied by color theorists.

Q.4 Based on your knowledge of the psychological effect color has on people, what colors (Warm, Cool or Neutral) would you use in each of the following spaces and justify why?
   a) Children's bedroom.
   b) Hospital.
   c) A small bedroom for older adults.
   d) Restaurant.

PART-B

Q.5 What factors influence the way color schemes are used in planning an interior design?
Q.6 Discuss various components to determine sustainability of paint products. 8

Q.7 Discuss the factors that leads color to have a psychological im
Q.5 Explain the role of principles of design in changing the environment of an interior space with suitable example.

Q.6 Discuss the psychological effects of LINE, one of the elements of design.

Q.7 Draw a living room wall pattern considering the principles of design on suitable scale. Wall size is 12’ x 10’.

End Semester Examination, May 2016
B. Sc. (Interior Design) – First Semester
HISTORY OF FURNITURE-I (351-105)

Time: 3 hrs.                    Max Marks: 40
No. of pages:  1

Note: Attempt FIVE questions in all; Q.1 is compulsory. Attempt any TWO questions from PART-A and TWO questions from PART-B. Each questions carry equal marks.

Q.1 Define the terms (any four):
   a) Craving.
   b) Inlay.
   c) Cornice.
   d) Adobe.
   e) Gesso.
   f) Mosaic.

   2x4

PART-A

Q.2 Heavily carved and embellished furniture along with multipurpose usage was famous during Middle Ages. Briefly describe the furniture of this Era with examples.

Q.3 Massive structures are one of the major characteristics of Egyptian Civilization. Describe other features of this Era with suitable examples.

Q.4 Complexity and ornamentation was the key feature of Roman Furniture. Discuss about other features of this Era with suitable examples.

PART-B

Q.5 Rococo refers to a sudden change in furniture making in term of style. Discuss in detail the salient features of this time with suitable examples.

Q.6 Describe French Renaissance in detail with suitable examples.
Q.7 Describe LOUIS XV Era of furniture making with key features, motifs, material etc. along with a neat furniture sketch.

End Semester Examination, May 2016
B. Sc. (Interior Design) - First Semester
COMMUNICATION-I (351.107)

Time: 3 hrs                   Max Marks: 40

No. of pages: 1

Note: Attempt FIVE questions in all; Q.1 is compulsory. Attempt any TWO questions from Part A and TWO questions from Part B. All questions carry equal marks.

Q.1 Write short notes on any two of the following:
a) Audience analysis.
b) Importance of visual aids in a presentation.
c) E-mail writing.
4x2

PART-A

Q.2 Write a paragraph on any two of the following:
a) My favourite festival.
b) Use of information technology by interior designers.
c) Importance of english language.
4x2

Q.3 What are the Do’s and Don’ts of giving an effective presentation? 8

Q.4 Why is listening important? How is it different from hearing? How can you become a better listener? 8

PART-B

Q.5 Explain the steps for writing an e-mail. What points will you keep in mind while writing an e-mail? 8
Q.6 Write an e-mail to the HR manager of your dream interior designing firm, applying for a two months internship with them. Talk about your credentials and the reason why you want to work with them.

Q.7 Prepare a summary of the following text. Also provide a suitable title.

Electric trolley cars or trams were once the chief mode of public transportation in the United States. Though they required tracks and electric cables to run, these trolley cars were clean and comfortable. In 1922, auto manufacturer general motors created a special unit to replace electric trolleys with cars, trucks, and buses. Over the next decade, this group successfully lobbied for laws and regulations that made operating trams more difficult and less profitable. In 1936 general motors created several front companies for the purpose of purchasing and dismantling the trolley car system. They received substantial investments from firestone tire, standard oil of California, Phillips petroleum, and other parties invested in the automotive industry. Some people suspect that these parties wanted to replace trolley cars with buses to make public transportation less desirable, which would then increase automobiles sales. The decline of the tram system in North America could be attributed to many things – labor strikes, the great depression, regulations that were unfavorable to operators – but perhaps the primary cause was having a group of powerful men from rival sectors of the auto industry working together to ensure its destruction.
End Semester Examination, May 2016  
B. Sc. (Interior Design) – First Semester  
MATERIALS AND FINISHES-I (351-108)

Time: 3 hrs.                   Max Marks: 40
No. of pages: 1

Note: Attempt FOUR questions in all; Q.1 is compulsory. Attempt any THREE questions from PART-A.

Q.1 Write short notes on the following:
   a) Hardwood and softwood.
   b) Air drying and kiln drying.
   c) Green building practices.
   d) Three pillars of sustainability.
   d) Ferrous and non-ferrous metals.
   2x5

PART-A

Q.2 What are the various kinds of wall covering and wallpaper? Explain application process of wall covering with suitable sketches.
   10

Q.3 What are the materials that will make less impact on our environment and are prepared from renewable resources?
   10

Q.4 What do you understand by seasoning of wood? Explain chemical seasoning of timber.
   10
What do you understand by budget estimate? Calculate the wall paper required to cover an area of 9 sq.m. (3 m x 3 m) with a height of 3 m with door opening of 1 m by 2.1 m and window measuring 1.8 m x 1.5 m.

10
f) A natural phenomenon that becomes harmful due to pollution is ____________.
   i) Global warming.  ii) Ecological balance.
   iii) Greenhouse effect.  iv) Desertification.

g) On earth energy enters an ecosystem as:
   iii) Sunlight.  iv) ATP.

h) The type of ecosystem with the highest mean plant productivity is:
   i) Tropical rain forest.  ii) Temperate grassland.
   iii) Desert.  iv) Tundra.

i) Endemic species are:
   i) Rare species.  ii) Critically endangered species.
   iii) Species localized in a specific region.  iv) Cosmopolitan in distribution.

j) Incomplete burning of petrol or diesel in vehicles create ____________gas which is
   very poisonous.
   i) Carbon dioxide.  ii) Carbon monoxide.
   iii) Methane.  iv) Ozone.

k) Taj Mahal is said to be suffering from "Marble Cancer ". What is Marble Cancer?
   i) Acidic Rain which corrodes marble.
   ii) Fungus in Taj Mahal marbles.
   iii) Yellowing of the marble on account of soot particles.
   iv) Smoke from adjoining industries.

l) Hotspots are regions of high:
   iii) Endemism.  iv) Critically endangered population.

m) Dodo is:
   iii) Rare.  iv) Extinct.

n) One of the best solutions to get rid of non-biodegradable wastes is:
   i) Burning.  ii) Dumping.
   iii) Burying.  iv) Recycling.

o) The number of live births per thousand persons in a year is termed as:
   i) Death rate.  ii) Birth rate.
   iii) Growth rate.  iv) None of the above.

Q.2 Answer in brief (ANY FIVE):
   a) Environmentalism.
   b) Hotspots of biodiversity.
   c) Keystone species.
   d) Ecological pyramids.
   e) Energy flow in the ecosystem.
   f) Nitrogen cycle.
   g) Photochemical smog.

PART-B

Q.3 a) Explain the productive nature of environment.
   b) Discuss the need for sensitization of masses towards the environment.

Q.4 a) Differentiate between renewable and non-renewable sources of energy. Give suitable examples.
   b) Suggest some measures for the conservation of forests.

Q.5 a) Name the biotic and abiotic components of an ecosystem. Explain the role of biotic components in the functioning of any of the ecosystem studied by you.
   b) What is ecological succession? Describe the causes, trends and general process of succession in nature.
Q.6 What are the major threats to biodiversity? Differentiate between in-situ and ex-situ conservation of biodiversity.  

Q.7 Define air pollution. Give an account of sources, nature and effects of air pollution. Suggest suitable methods to control air pollution.  

Q.8 Write short notes on the following (ANY TWO):  
   a) Ozone depletion.  
   b) Global Warming.  
   c) Acid Rain.  

Q.9 a) Define age structure, death rate and birth rate in brief.  
   b) Discuss the role of IT in environment and human health.  

End Semester Examination, May 2016  
B. Sc. (Interior Design) – Second Semester  
HISTORY OF FURNITURE-II (351.205)  

Time: 3 hrs Max Marks: 40  
No. of pages: 1  
Note: Attempt FIVE questions in all; Q.1 is compulsory. Attempt any TWO questions from Part A and TWO questions from Part B. Each question carries equal marks.  

Q.1 Discuss about various furniture styles which can be used to enhance an interior space with creating different impacts. Support your answer with suitable examples.  

PART-A  
Q.2 Differentiate between any two prominent styles of furniture making with suitable pictorial representation.  

Q.3 Give a brief summary of Georgian period with suitable furniture sketches.  

Q.4 Write down the key features of furniture pieces with illustrations (any two):  
   a) Sheraton.  
   b) Chippendale.  
   c) Queen Anne.  

4×2  

PART-B  
Q.5 There were certain reasons which lead to change in furniture construction. Discuss in detail the reasons supporting your answer.  

Q.6 Discuss Art Nuevo in detail. Give suitable examples in terms of sketch.  

Q.7 Describe recycled furniture with its uses in current scenario.  

End Semester Examination, May 2016  
B. Sc. (Interior Design) – Second Semester  
COMMUNICATION-II (351-207)
Time: 3 hrs.  
Max Marks: 40

No. of pages: 1

Note: Attempt FIVE questions in all; Q.1 is compulsory. Attempt any TWO questions from PART-A and TWO questions from PART-B.

Q.1 Briefly explain any four of the following:
   a) Visual aids for presentation.
   b) Business proposal.
   c) Importance of punctuation.
   d) Audience analysis for presentation.
   e) Memo.
   f) Solicited and unsolicited proposals.  

2x4

PART-A

Q.2 Write a paragraph on any two of the following topics:
   a) Interior design complements architecture.
   b) Increasing demand of interior designers.
   c) Variety of vocal techniques during presentation.  

4x2

Q.3 Prepare an outline of presentation on any one of the following topics:
   a) Time Management.
   b) Global Warming.

   Instructions:
   i) Prepare at least 10 slides (Draw box on sheet).
   ii) Include introduction, body and conclusion.
   iii) Use pointers.
   iv) Display clarity of thoughts.
   v) Organize content logically.  

8

Q.4 Write an e-mail:
You are the design head of XYZ Design Company and you have received a request from a 5-star hotel in Delhi to refurnish their lobby area. They have asked you to e-mail them a brief idea about what you’re going to do and have requested a fee quote (apart from the cost of products/ materials items that will be used). Write an e-mail giving information of the same and include a request setting up a brief meeting.  

8

PART-A

Q.5 Explain the process of building and dealing with a client.  

8

Q.6 Explain the steps involved in planning and drafting a business proposal.  

8

Q.7 You are the manager of an interior designing firm which has decided to open another office in Mumbai. You have decided to hold an in-house competition for employees to come up with design for the Mumbai office. Write a memo informing the design staff about, giving details about the meeting where the ideas will be submitted date on which the result will be announced and the prize.  

8

End Semester Examination, May 2016
B. Sc. (Interior Design) – Second Semester
MATERIAL AND FINISHES-II (351-209)
Q.1 Fill in the blanks:
   a) The process to remove short fiber and further parallel the fibers, creating the smoother, finer, more uniform yarn is called as _____________.
   b) Assemblage of fibers into a continuous strand that can be used to make a fabric is _______________.
   c) Device through which chemical solutions are forced in order to create fibers is _________________.
   d) Protein fibers are also known as _________________.
   e) Yarns that have not been combed are _________________.
   f) Plastics that becomes soft and pliable when exposed to heat and harden when the heat is removed. They may be shaped or reshaped numerous times _________________.
   g) The use of more than one fiber in a textile product is _________________.
   h) Adding colour to a textile product by using dye or pigment is _________________.  1x8

PART-A

Q.2 What are woven fabrics? Explain different types of weaves and its variations with neat sketches. 8

Q.3 Explain natural fabrics and artificial fabrics with examples and also specify their properties. 8

Q.4 a) What do you understand by yarns and explain different types of yarns in detail with neat sketches? 4
   b) Define two different methods in which fabric is made out of yarns. 4

PART-B

Q.5 Discuss the appropriate fabrics you would use in the Living room of a residence in Delhi. This is the common family room which is mostly use all day by the family members. It also has windows on the south west wall. 8

Q.6 a) What do you understand by Abrasion resistance and static resistance? 4
   b) Write down the names of minimum 4 textile fibers (in terms of excellent and poor) under the categories mentioned below:
      i) Strength.
      ii) Absorbancy.
      iii) Residency. 4

Q.7 Calculate the length of fabric to be used to make curtains for the following window size (L x H) 7’-0” x 8’-0”, sill level is 6” only and lintel level is 8’-6”. You can assume the width of the fabric. The curtains would be stitched with I-lets. 8
End Semester Examination, May 2016  
B. Sc. (Interior Design) – Second Semester  
GENERAL EDUCATION (351-210)

Time: 3 hrs.                    Max Marks: 40

No. of pages: 1

Note: Attempt FIVE questions in all; Q.1 is compulsory. Attempt any TWO questions from PART-A and TWO questions from PART-B.

Q.1 Write short notes on any two the following:
   a) Active Listening.
   b) Body language for effective communication.
   c) Dressing up for an interview.
   4x2

PART-A

Q.2 What is a debate? What are the Do’s and Don’ts of a debate?
   8

Q.3 How should you conduct yourself in a group discussion? Why are group discussions important?
   8

Q.4 What is the importance of listening? How can one become a better listener?
   8

PART-B

Q.5 What are the “10 commandments of presentations”?
   8

Q.6 What are the different barriers to effective communication? Elaborate.
   8

Q.7 Let’s say that you have been asked to appear for an interview. Write down, how you are going to answer the following questions:
   a) Where do you see yourself after 5 years from now?
   b) Why should we hire you?
   4x2
WINDBOW TREATMENTS AND SOFT FURNISHINGS (351.211)

Time: 3 hrs                               Max Marks: 40
No. of pages: 1                           

Note: Attempt FIVE questions in all; Q.1 is compulsory. Attempt any TWO questions from Part A and TWO questions from Part B. All questions carry equal marks.

Q.1 Write short notes on (any four):
a) Hard treatment.
b) Cornice.
c) Drapery.
d) Curtain.
e) Molding.
f) Valance.
2x4

PART-A

Q.2 Treating a window is the most important part in interior design. Discuss in detail the importance of treating a window with suitable examples. 8

Q.3 Discuss in detail various types of window treatments with the help of a flow chart along with suitable pictorial representation. 8

Q.4 How can different period styles of window treatment be coordinated with interior design? Give suitable examples. 8

PART-B

Q.5 'Soft furnishings can do wonders in a boring interior’. Justify the given statement including various parts of soft furnishings with suitable examples. 8

Q.6 Define re-upholstery. Discuss in detail advantages and disadvantages of the same. 8

Q.7 Beddings plays the most important role as they are associated with comfort. Suggest appropriate materials and considerations to be kept in mind while selecting the same. 8

End Semester Examination, May 2016
B. Sc. (Interior Design) - Third Semester
PSYCHOLOGY (351.302)

Time: 3 hrs                               Max Marks: 40
No. of pages: 1                           

Note: Attempt FIVE questions in all; Q.1 is compulsory. Attempt any TWO questions from Part A and TWO questions from Part B. All questions carry equal marks.

Q.1 Write short notes on (any four):
a) Extrovert.
b) Personality.
c) Character.
d) Learning.
e) Memory.
f) Personality trait.
2x4
**PART-A**

Q.2 What do you understand by the term psychology? Discuss its goals in detail.  

Q.3 Define psychoanalysis and three levels of human experiences given by freud in detail.  

Q.4 Discuss about reinforcement and its types in brief.  

**PART-B**

Q.5 Define the term attachment. Discuss various parenting styles in brief.  

Q.6 Define the term psychological disorder. Discuss in detail various causes of these disorders.  

Q.7 Write short notes on:  
   a) Body image in media.  
   b) Love and emotion.  
   4x2

---

End Semester Examination, May 2016  
B. Sc. (Interior Design) – Third Semester  
MARKETING TECHNIQUES (351.307)

Time: 3 hrs.  
Max Marks: 40  
No. of pages: 1

Note: Attempt ANY FIVE questions in all; Q.1 is compulsory. Attempt ANY TWO questions from PART-A and TWO questions from PART-B. Each questions carry equal marks.

Q.1 What is marketing? How would you differentiate between marketing concepts and selling concept?  

**PART-A**

Q.2 What are the promotional tools required to marketing an interior design industry?  

Q.3 What is a 'Brand'? What are the various decision associated with the branding? Explain how branding plays an important role in the formulation of marketing mix and marketing strategy?  

Q.4 What do you understand by the term "positioning"? Explain the various bases of positioning with the help of an example.  

**PART-B**

Q.5 Define marketing research. Explain in brief the various elements of marketing research process.  

Q.6 Assume you as a marketing manager of a plywood and laminate company. Select an ideal target market for your company and explain how you would plan marketing strategy for the same.
Q.7 Compare the methods and costs of advertising to increase the visibility in market.  

**End Semester Examination, May 2016**

B. Sc. (Interior Design) – Fourth Semester

**BUSINESS SKILLS FOR DECORATORS (351.401)**

Time: 3 hrs  
Max Marks: 40  
No. of pages: 1  
Note: Attempt **FIVE** questions in all; **Q.1 is compulsory.** Attempt any **TWO** questions from **Part A** and **TWO** questions from **Part B.** Each question carries equal marks.

Q.1 Explain (any four) in brief:  
a) Agreement.  
b) Time management.  
c) Interior design.  
d) Whole seller  
e) Basic managerial role.  

**PART-A**

Q.2 Discuss in detail Designer’s Code of Ethics.  

Q.3 a) Differentiate between an interior decorator and an interior designer.  
b) Discuss the importance of interior designer being updated with the current market scenario.  

Q.4 Professional image plays a very important role in an individual carrier. Define the term and discuss in detail the tips to improve the same.  

**PART-B**

Q.5 Write short notes on (any two):  
a) General contractors.  
b) Joint ventures.  
c) Trade shows.  

Q.6 Define ‘contract’. Discuss the effective forms of a decorating and designing contract.  

Q.7 Discuss the importance of cover letter and resume. Also differentiate between them. Make a sample resume highlighting the capabilities.  

---

**End Semester Examination, May 2016**

B. Sc. (Interior Design) – Fifth Semester

**LIGHTING (351-305)**

Time: 3 hrs.  
Max Marks: 40  
No. of pages: 1  
Note: Attempt **FIVE** questions in all; **Q.1 is compulsory.** Attempt any **TWO** questions from **PART-A** and **TWO** questions from **PART-B.**

Q.1 Trace an essay on different source of lights. Give examples of artificial lights and application in commercial, retail and residences.  

**PART-A**
Q.2 What are lamps and luminaries? What are the different types of lamp system and basic for selecting the lamps? 8

Q.3 Write short notes on (any two):
   a) Important considerations for designing lighting schemes for open office.
   b) Lumen.
   c) Difference between Ambient light and task lighting. 4x2

Q.4 Write short notes on (any two):
   a) Luminous flux.
   b) Illuminance.
   c) Luminous intensity.
   d) Enumerate energy saving techniques for an office as an interior project. 4x2

PART-B

Q.5 Explain the effect of colour on wall, fabrics, carpet in detail. Explain various innovative day lighting technologies. 8

Q.6 What is day light factor? Illustrate its various components with schematic diagrams. 8

Q.7 Draw sketches of lighting symbols used in lighting plan and name them. 8

End Semester Examination, May 2016
B. Sc. (Interior Design) – Fifth Semester

ESTIMATION AND PROFESSIONAL PRACTICE (351-501)

Time: 3 hrs.                   Max Marks: 40
No. of pages:  1

Note: Attempt ANY FIVE questions in all; Q.1 is compulsory. Attempt ANY TWO questions from PART-A and TWO questions from PART-B. Each questions carry equal marks.

Q.1 Write short notes on any four of the following:
   a) Estimated cost.
   b) Actual cost.
   c) Arbitrator and need of arbitration.
   d) List and explain tender important contents.
   e) Personal goods. 2x4

PART-A

Q.2 What are the specializations of interior designing profession? Explain. 8

Q.3 Define professional ethics and give details of any three components of professional ethics. 8

Q.4 Explain any two of the following:
   a) Useful promotional tools for interior designing consultancy.
   b) Method of calculating interior design consultancy for the residence renovation project.
   c) Referral. 4x2
PART-B

Q.5 What is contract? Write the basic elements of contract in brief. 8

Q.6 Define professional interior designer along with his/her duties as a professional designer. 8

Q.7 What are the two stages of detailed estimate? Draw the format of details of measurements forms and abstract of estimate form. 8

End Semester Examination, May 2016
B. Sc. (Interior Design) – Sixth Semester
MATERIAL FINISHES AND DESIGN TRENDS (351-610)

Time: 3 hrs.                    Max Marks: 40
No. of pages: 1

Note: Attempt FIVE questions in all; Q.1 is compulsory. Attempt any TWO questions from PART-A and TWO questions from PART-B. Each questions carry equal marks.

Q.1 A two month “World cultural festival is being held at Hotel Lalit, Delhi. For this occasion a few specialty restaurants are being designed which would be a part of the hotel later also. You have been hired to prepare a design concept for one of these from the following option:
a) Asian cuisine.
b) European cuisine.
c) African cuisine.
Based on the above, give a detailed write-up supported with sketches suggesting a concept for one of restaurants. 8

PART-A

Q.2 Define fabric and its type in detail. 8

Q.3 List a few materials you would want to use in a partition design for the reception and waiting area of an advertising agency office. The budget is not too high but at the same time it has to give a trendy look. Support your answer with a neat sketch. 8

Q.4 Colour is a very important aspect in an interior space. Discuss. 8

PART-B

Q.5 ‘Today the global climate change has become a key issue’. As an interior designer what would be your contribution to save the planet? 8

Q.6 Sketch at least two furniture pieces in contemporary design for the ‘Study’ of a residence. 8

Q.7 Design an installation using scrap material near the parking lot corner opposite the E-block of your college. The maximum space that you can use is $10'0" \times 10'0"$. The height can be maximum upto $15'0"$. 8
Q.1 Write short notes on the following:
   a) Project report components.
   b) Professional conduct.
   c) Letter of agreement.
   d) Importance of graphics in audio visual presentation.
   e) Informative reports.

Q.2 What do you understand by tenders? Explain various forms of tenders in building for
civil and interior works.

Q.3 Describe the 4 P's of presentation with the help of a suitable example of interior
designing.

Q.4 What are the different research and data collection techniques? Discuss some
advantages of online survey.

Q.5 Explain contract and contract planning. What are the basic elements of a contract?