

End Semester Examination, Dec. 2017
 Bachelor of Architecture – First Semester
STRUCTURAL DESIGN-I (AR-105)

Time: 3 hrs.

Max Marks: **70**

No. of pages: 2

Note: Attempt **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 Answer the following questions:

- a) Define the theorem of parallel axis.
- b) What are the two methods of finding forces in different members of a truss?
- c) Define Centre of Gravity and Centroid.
- d) What do you understand by equilibrium and conditions for coplanar concurrent forces?
- e) Draw a line diagram of a simply supported beam with distance between supports 8 m. and overhang on two sides equal to 2 m.
- f) Name different types of supports.
- g) Define Moment of Inertia.

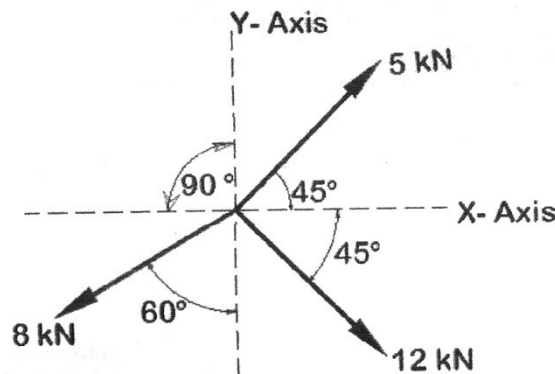
2×7

PART-A

Q.2 a) Define force and state the effects of force.

6

b) Find resultant of the forces shown in figure given below:

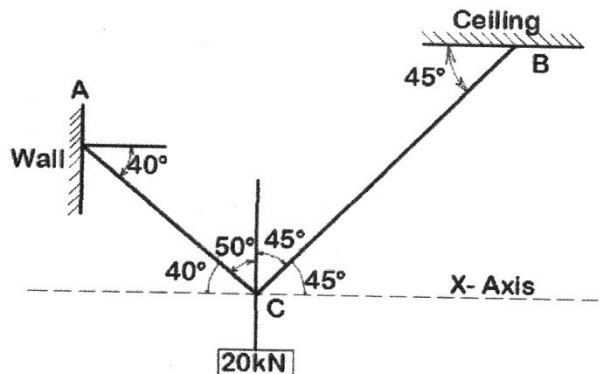


8

Q.3 a) State Lami's Theorem.

6

b) Find resultant of the forces shown in figure given below:



8

Q.4 a) Explain Free Body Diagram.

3

b) What are the various laws used for composition of forces?

5

- c) Two equal forces are acting at a point with an angle of 45° between them. If the resultant is equal to 18.5N, determine the magnitude of each force. **6**

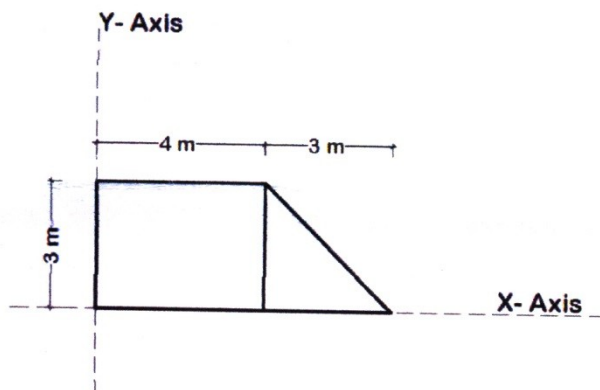
PART-B

- Q.5 a) Write down the position of Centroid of plane geometrical figures:

- i) Rectangle.
- ii) Circle.
- iii) Semicircle.
- iv) Quadrant.
- v) Triangle.

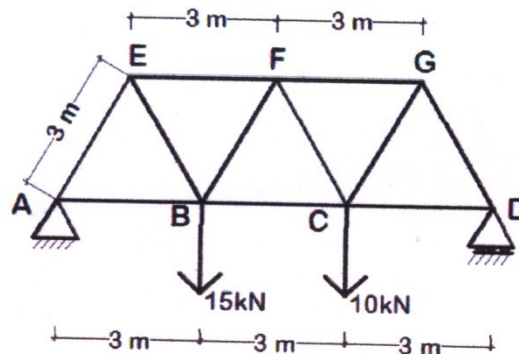
1×5

- b) Locate the Centroid of the Lamina and find Moment of Inertia of the area shown in figure given below:



9

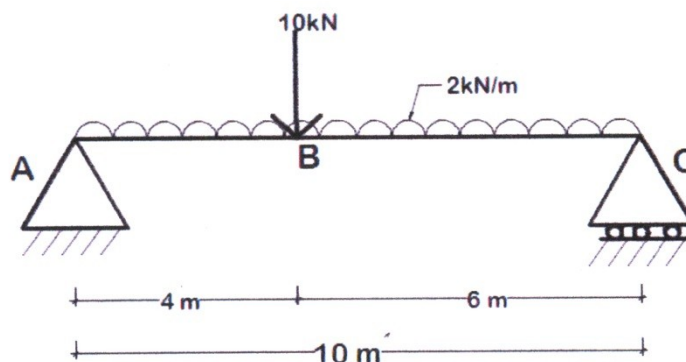
- Q.6 Find the magnitude and nature of forces in all members of the truss shown in below figure by analytical or graphical method.



14

- Q.7 a) Explain different types of loads acting on a structure.
b) Find out the reactions of the beam shown in figure below:

4



10

End Semester Examination, Dec. 2017
Bachelor of Architecture – First Semester
COMMUNICATION SKILLS (AR-109)

Time: 3 hrs
70

Max Marks:

No. of pages:

1
Note: Attempt **FOUR** questions in all; **PART-A is compulsory**. Attempt any **THREE** questions from **Part-B**. Marks are indicated against each question.

PART-A

Q.1 **Rewrite the following sentences correctly after tracing the error, if any:**

- a) The boy who does the best he will get the prize.
- b) The girl who answered the phone she was polite.
- c) Whoever works hard he will win.
- d) Here come Mr. President and his wife.
- e) I shall see the brakes whether they work well.
- f) I have visited Niagara Falls last weekend.

1x6

Fill in the blanks with appropriate words in the brackets:

- g) _____ down on the bed, I need to examine you, “said the doctor (lie, lye).
- h) Non vegetarians like to eat _____ every day. (meet, meat).
- i) The egg _____ is very good for health (your, yore).
- j) The electricity is cut _____ for the next few hours (off, out).

1x4

PART-B

Q.2 Write short notes on the following:

- a) Difference between seminars and symposium.
- b) Write the format of minutes of meeting.
- c) Corruption in politics.
- d) Importance of communication in the field of Architecture.

5x4

Q.3 Write an essay on **(any one)** topic of the following:

- a) Modernization of education system.

Or

- b) Technology: a boon or a bane.

20

Q.4 What is Panel Discussion? What are the components of Panel Discussion?

20

Q.5 What is a Communication Process? What are the various barriers of communication?

20

End Semester Examination, Dec. 2017

Bachelor of Architecture – Second Semester

STRUCTURAL DESIGN-II (AR-205)

Time: 3 hrs.

Max Marks: 70

No. of pages: 2

Note: Attempt **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 Explain the following:
- Point of contra flexure.
 - Poisson's Ratio.
 - Volumetric Strain.
 - Fixed and Continuous Beams.
 - Types of Stresses.
 - Hook's Law.
 - Factor of Safety.

2×7

PART-A

- Q.2 a) Explain relationship between E, K and G. **6**
b) A concrete column of 200 mm. × 300 mm. is reinforced with 4 bars of 20 mm. dia and carries a load of 300 kN. Calculate load shared by concrete and steel and the stresses in respective materials. $E_s = 2 \times 10^5$ MPa, $E_c = 0.15 \times 10^5$ MPa. **8**
- Q.3 a) Draw and explain stress strain curve for the mild steel. **6**
b) Describe the various mechanical properties of materials, like elasticity, plasticity, malleability, hardness, strength, toughness and ductility with illustrations of the materials. **8**
- Q.4 a) Explain Shear Force and Bending Moment. **4**
b) A simply supported beam AB of span 4 m is acted upon by an UDL of 5kN/m for a distance of 2 m from left support and a point load of 1 m from right support. Draw shears force and bending moment diagrams. Calculate magnitude and location of maximum bending moment. **10**

PART-B

UDL 1 kN/m

- Q.5 a) State the Clapeyron's theorem of three moments. **4**
b) A continuous beam ABC consists of two consecutive spans AB and BC 4 meters each and carrying a distributed load of 60 kN per meter run. The end A (left side) is fixed and end C (right side) is simply supported. Find the support moments and the reactions. **10**
- Q.6 A continuous beam ABC 10 m. long rests on three supports A, B and C at the same level and is loaded as shown in figure given below: Find the support moments and support reactions. Draw the shear force and bending moment diagrams.

- Q.7 a) What are the advantages and disadvantages of fixed beam? **6**
- b) A beam 8 meters long fixed at both ends carries a uniformly distributed load over the whole span. Find the load intensity on the beam.
- i) If the maximum bending moment shall not exceed 40 kNm.
- ii) If the deflection shall not exceed 1/400 of the span.
- Take $EI = 9.5 \times 10^9 \text{ kN/mm}^2$. **8**

End Semester Examination, Dec. 2017
Bachelor of Architecture – Second Semester
SOCIOLOGY AND PSYCHOLOGY IN ARCHITECTURE (AR-207)

Time: 3 hrs
70

Max Marks:

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 What is territorial organization of a space? What are the three types of territorial spaces?
14

PART-A

- Q.2 What is the relationship between psychology and spatial behavior?
14
- Q.3 Explain verbal and non-verbal types of social interactions.
14
- Q.4 Explain Abraham Maslow's theory in psychology in detail.
14

PART-B

- Q.5 State the theory of cultural lag and state its limitations.
14
- Q.6 What is the concept of society? Explain various types in which societies are classified.
14
- Q.7 How does culture act as adaptive screen between environment and mankind?
14

End Semester Examination, Dec. 2017
Bachelor of Architecture – Second Semester
CLIMATOLOGY (AR-209)

Time: 3 hrs
70

Max Marks:

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 the following:
- a) Daylight Factor.
 - b) Site Climate.
 - c) Glare.
 - d) Seasonal changes.
 - e) Stack effect.
 - f) Effective Temperature.
- 5x6**

PART-A

- Q.2 Explain the elements of Site Climate. List the instruments to measure climatic elements. **10**
- Q.3 Define ventilator and why it is required? Enumerate the air flow pattern inside and outside the building.
10
- Q.4 Explain with the help of diagram “ the passage of radiation through the atmosphere”. **10**

PART-B

- Q.5 What is Orientation? Discuss in detail, how a building should be oriented in relation to sun and wind.
10
- Q.6 Explain briefly Passive Environment Control Mechanisms in traditional and modern built environment.
10
- Q.7 Define climate. Enumerate the typical features of hot and dry climate. What measures an Architect should take for a climate responsive design for a project? Illustrate with neat sketches.
10

End Semester Examination, Dec. 2017

Bachelor of Architecture – Third Semester HISTORY OF ARCHITECTURE-I (AR-304)

Time: 3 hrs
60

Max Marks:

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 the following:

- a) Sanchi Stupa.
- b) Doric order.
- c) Notre dame, Paris.
- d) Meenakshi Temple.

2x6

PART-A

Q.2 Explain in detail Athenian Acropolis.

12

Q.3 Discuss in detail architectural style, construction techniques and ancient city planning principles of Indian valley civilization, with sketches. Explain Granary Great Bath at Mohenjodaro.

12

Q.4 Write an essay tracing Egyptian civilization from the time of the mastabas as to the great pyramids. Discuss how religion was integral to Egyptian life?

12

PART-B

Q.5 The first great civilization all grew up in river valley. What are the civilizations and their geographic locations on the world map? Explain river valley civilization, in brief. **12**

Q.6 Explain different types of buildings that Roman built. Explain various construction techniques adopted by Romans. Explain the salient features of colosseum with sketches.

12

Q.7 Explain in detail the pyramid of Tutankhamun.

12

End Semester Examination, Dec., 2017
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; **Q.1 is compulsory**. Attempt any **TWO** questions from **Part-A** and **TWO** questions from **Part-B**. Each question carries equal marks.

(Assume any missing data suitably.)

Q.1 Answer the following:

- a) Write any three assumption of theory of simple bending.
- b) Explain neutral axis.
- c) Draw a free hand sketch showing shear stress distribution in a rectangular section
- d) Explain eccentric loading in case of a column.
- e) Explain middle third rule.
- f) In a simply supported beam under UDL throughout its length, give the location of maximum and minimum deflection and slope.
- g) Define composite beam.
- h) Write down any four assumptions used in Eulers column theory.

1½x8

PART-A

Q.2 a) A cantilever beam rectangular in section is having 80 mm width and 120 mm depth. It is subjected to a point load of 6 kN at its free end. If the bending stress is not to exceed 40N/mm^2 , find span of beam.

6

b) A rectangular beam 60 mm wide and 150 mm deep is simply supported over a span of 6 mtr. The beam is subjected to a point load of 12 kN at its mid-point. Find maximum stress induced in the beam.

6

Q.3 a) An 'I' section beam 350 mm x200 mm has a web thickness of 12.5 mm and flange thickness of 25 mm. It carries a shearing force of 200 kN at a section. Sketch the shear stress distribution across the section.

8

b) A rectangular beam 100 mm x 250 mm deep and 3 mtr long is carrying an UDL of 40 kN/m over its entire length. Determine the maximum and average shear stress and draw the sketch showing variation of shear stress along depth of beam. **4**

Q.4 a) A simply supported beam 140 mm wide and 240 mm deep has a span of 4 mtr. Determine the load that can be placed at the centre to cause

deflection of 10 mm. Take $E=6 \times 10^3 \text{ N/mm}^2$.

6

- b) A beam has cross section of 100 mm x 200 mm and is cantilever of span 5 mtr. Determine the point load that can be placed at the free end of the beam so that the maximum deflection is 10mm. Take $E=6 \times 10^3 \text{ N/mm}^2$.

6

PART-B

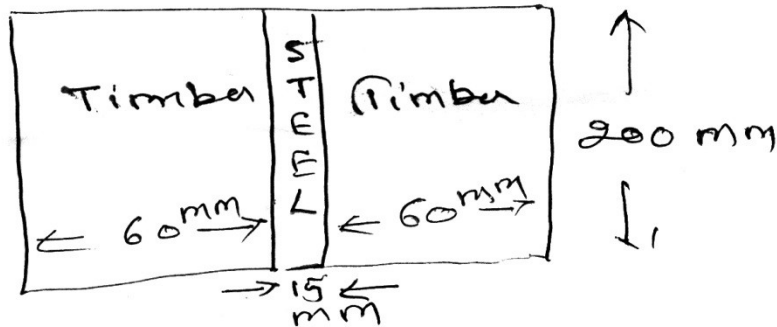
- Q.5 A hollow masonry column is 1.2 mtr x 0.8 mtr wide and 150 mm thick. A vertical load of $2 \times 10^6 \text{ N}$ is transmitted in the vertical plane bisecting 1.2 mtr side at an eccentricity of 100 mm from the geometric axis of the section. Calculate maximum and minimum stress in the section.

12

- Q.6 a) Explain why do you use flitched beam.

3

- b) A composite beam is made up of steel and timber as shown below in figure.



Determine the moment of resistance of beam. Take $\sigma_s = 100 \text{ N/mm}^2$ and $\sigma_t = 5 \text{ N/mm}^2$.

9

- Q.7 a) Explain slenderness ratio.

3

- b) An I section 400 mm x 200 mm with 20 mm thick web and flange, 6 mtr long is used as a strut with both end fixed. What is Eulers crippling load for the column? Take $E=200 \times 10^3 \text{ N/mm}^2$.

9

End Semester Examination, Dec. 2017
Bachelor of Architecture – Third Semester
SURVEYING AND LEVELLING (AR-306)

Time: 3 hrs.
40

Max Marks:

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**):
- What is Geodetic Surveying?
 - Define fore bearing and back bearing.
 - Define local attraction.
 - What is contour gradient?
 - What do you mean by levelling?
- 2x4**

PART-A

- Q.2 a) Write down the difference between Surveyor's compass and Prismatic compass. **4**
- b) A traverse survey was conducted and the data obtained is tabulated below. Find the magnitude and direction of closing error using Bowditch's methods:

Line	Length (m)	Bearing
AB	151.5	78° 40'
BC	183.2	152° 32'
CD	229.8	251° 18'
DA	207.6	356° 15'

4

- Q.3 a) A survey line BAC crosses a river, A & C being on the near and distant banks respectively. Standing at D1 a point 50 meters measured perpendicularly to AB from A, the bearing of C and B are 320° and 230° respectively, AB being 25 meters. Find the width of the river.

4

- b) Explain the classification system of surveying.

4

- Q.4 a) How do you measure horizontal angles by using theodolite? Explain one method. **4**
- b) Explain the temporary adjustments of a transit.

4

PART-B

- Q.5 a) Explain with sketches, the uses of contour maps.
4
b) Discuss one method of interpolating the contours.
4
- Q.6 a) The following readings were observed successively with a leveling adjustment. The instrument was shifted on 5th and 11th reading. Draw up a page of level back and determine R.L of various points, if R.L of 1st point is 136.440. Use height instrument method:
i) 0.585 ii) 1.010 iii) 1.735 iv) 3.295 v) 3.775 vi) 0.350 vii) 1.300 viii) 1.795
ix) 2.575 x) 3.375 xi) 3.895 xii) 1.735 xiii) 0.635 xiv) 1.605
8
- Q.7 a) Brief the uses of Remote Sensing in surveying.
4
b) Discuss application of total station.
4

End Semester Examination, Dec. 2017 Bachelor of Architecture and Planning – Third Semester **THEORY OF ARCHITECTURE AND DESIGN-I (AR-307)**

Time: 3 hrs
60

Max Marks:
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 Modern Architecture and its characteristics. Also, describe how it evolved after Industrial Revolution.
20

PART-A

- Q.2 Write about Robert Venturi's philosophies and his famous works.
10
- Q.3 Discuss briefly on the works and philosophies of Frank Lloyd Wright. Also, discuss about socio economical impact of his works.
10
- Q.4 Compare two different theories and characteristics of High tech and Minimalist Architecture.
10

PART-B

- Q.5 Write a note on Corbusier's "Five points of a new architecture".
10

Q.6 "Form Follows Function" – Who coined the phrase? Explain the phrase with an example.

10

Q.7 Compare and contrast post-modern and deconstruction architectural philosophies. Also discuss about materials and technology used.

10

End Semester Examination, Dec. 2017

Bachelor of Architecture – Third Semester

BUILDING SERVICES-I (WATER SUPPLY AND SANITATION) (AR-308)

Time: 3 hrs

60

Max Marks:

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 (**any four**) on the following with the help of sketches:

- a) Canal and River Intake.
- b) Overhead Storage Tanks.
- c) Stop Valve and a Drain Valve.
- d) Plumbing.
- e) Sullage and Sewage.

3x4

PART-A

Q.2 What are Traps? Explain the types of traps classified on the basis of uses in the Drainage System?

12

Q.3 What is Rain Water Harvesting? Explain three types of rainwater harvesting techniques with sketches.

12

Q.4 Write down the purpose and diameter of the following pipes:

- a) Soil Pipe.

- b) Waste Pipe (horizontal).
- c) Vent Pipe.
- d) Rain Water Pipe.

3x4

PART-B

- Q.5 Explain the process of Surface Water Treatment.
12
- Q.6 Explain the One Pipe System and the Hybrid Systems used for drainage with proper sketches.
12
- Q.7 What is a Septic Tank? Make its schematic section, in detail and explain its working. **12**

End Semester Examination, Dec. 2017

Bachelor of Architecture – Third Semester

BUILDING SERVICES-I (WATER SUPPLY AND SANITATION) (AR-308)

Time: 3 hrs
60

Max Marks.

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 down what you understand about the following (**any four**):
- a) Flocculation.
 - b) Aeration.
 - c) Coagulation.
 - d) Filtration.
 - e) Disinfection.

3x4

PART-A

Q.2 What are the various sources of water supply? Explain them, in detail.

12

Q.3 Draw a section of a multi-storeyed apartment block in a housing complex showing water supply to different floors (say six in number) and waste water/sewage disposal from there to the ground level.

12

Q.4 Explain waste water and sewage disposal system for an independent bungalow house and its connection to the municipal sewer system

12

PART-B

Q.5 Draw a schematic diagram showing hot water supply in a building with a boiler system.

12

Q.6 Explain rain water harvesting, its need and concept. Draw a sketch or diagram to show the system for a house with pitched roof.

12

Q.7 Enumerate and explain in brief, different materials which are used to manufacture W.C., wash basins and sinks etc.

12

End Semester Examination, Dec. 2017

Bachelor of Architecture – Fourth Semester

HISTORY OF ARCHITECTURE-II (AR-404)

Time: 3 hrs

60

Max Marks:

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 question carries equal marks.

Q.1 Explain the following with examples:

- a) Gothic Revival.
- b) Antoni Gaudi.
- c) Renaissance architecture.
- d) Walter Gropius.

2x6

PART-A

Q.2 Compare church architecture of Renaissance, GOINCA, Byzantine to rarely Christian and Basilican churches of Rome. Trace examples from different periods with architecture characterisation and construction detail.

12

Q.3 Explain the advent of early Christian architecture and an early Christian church. **12**

Q.4 Write about Romanesque imperial churches of Germany (Rhlineland and).

12

PART-B

Q.5 How modernism saw invention of R.C.C. and its revolutionary effect on constructions?

12

Q.6 Discuss the immediate effect of industrial revolution on architecture of that period. **12**

Q.7 Compare the domes of churches of various periods, like Flourence cathedral St. Peter Rome, Hagia Sophia and Pizza cathedral and trace their architectural relevance. **12**

End Semester Examination, Dec. 2017

Bachelor of Architecture – Fourth Semester

STRUCTURE DESIGN-IV (AR-405)

Time: 3 hrs

MaxMarks.**60**

No. of

pages: 1

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

Q.1 Answer the following:

- What do you understand by neutral axis in a RCC beam?
- How do you judge whether a slab is one way or two ways?
- Explain relation between water cement ratio and strength of concrete.
- Name any three assumptions of working stress or limit state method.
- Draw a freehand stress diagram in case of a RCC beam.
- Name the mode of failure of a long column.
- Define landing in case of a stair.
- Bond length.

1½x8

PART-A

Q.2 a) Explain balanced section.

3

b) A singly reinforced section of a RCC beam is 300 mm wide and 450 mm deep to the centre of tensile reinforcement which consists of 4 bars of 16 mm diameter. If safe stresses in concrete and steel are 7 N/mm^2 and 23.0 N/mm^2 respectively, find moment of resistance of section. Take $m = 13.3$

9

Q.3 a) A beam of reinforced concrete is 250 mm wide and 500 mm deep to the centre of tensile steel. It is reinforced with compression and tensile steel having area equal to 1016 mm^2 and 1256 mm^2 respectively. The center of compression steel is 50 mm from top edge. If $m = 13.33$ and bending moment at section is 70 kNm or car. Calculate the stresses in concrete and steel.

9

b) Discuss Design Mix.

3

Q.4 a) Discuss the load distribution mode of one way and two way slab.

3

b) Design a simply supported slab supported on masonry walls with following details:

i) Clear span = 3 Mtr.

ii) Live load = 4000 N/m^2

Use M 20 concrete and Fi 415 steel.

9

PART-B

Q.5 a) Write down IS recommendation about transverse reinforcement in a column.

3

b) A short column 300 mm x 300 mm in section is reinforced with 8 bars of 22 mm diameter. Find the safe load on column as per IS code, permissible stress in steel and concrete is 190 N/mm^2 and 5 N/mm^2 respectively.

9

Q.6 Design a short RCC column of circular section to carry an axial load of 2000 KN. The column should have later at reinforcement in form of a spiral. Use M20 concrete and Fi 415 steel.

12

Q.7 a) Describe straight stair.

3

b) Main stair of an office building has to be located in a room measuring 3.5 meter X 5.5 meter vertical distance between the floor is 3.75 Mtr. Design the stair. Use live Load = 2000 N/mm^2 , M20 concrete and Fi 415 steel.

9

End Semester Examination, Dec. 2017
Bachelor of Architecture – Fourth Semester
BUILDING SERVICES-II (AR-406)

Time: 3 hrs.

Max Marks: **60**

No. of pages: 1

Note: Attempt **FIVE** questions in all; Attempt any **TWO** questions from **Part-A** and any **THREE** questions from **Part-B**. Each question carries equal marks.

PART-A

- Q.1 Explain three types of lamps used for interior as well as exterior lighting. Make the comparison chart of the lamp types explaining their advantages and disadvantages. **12**
- Q.2 Draw the schematic diagram that shows the energy from generation to distribution and explain each of the stages. Explain the types and stages of installing protective devices during Electrical installation. **12**
- Q.3 Define and explain the following:
a) Lightning protective system.
b) Energy efficient lighting. **6×2**

PART-B

- Q.4 Explain the various standards mentioned in National Electric code for Electrical Installation. **12**
- Q.5 Explain the following:
a) Direct and Indirect lighting.
b) Day lighting factor.
c) Space height ratio. **4×3**
- Q.6 An office area has length: 20 meter; width: 10 meter; height: 3 meter. The ceiling to desk height is 2 meters. The area is to be illuminated to a general level of 250 lux using lamp 64 watt CFL luminaries with a SHR of 1.25. Each lamp has an initial output (Efficiency) of 85 lumen per watt. The lamps Maintenance Factor (MF) is 0.63, Utilization Factor (UF) is 0.69 and space height ratio (SHR) is 1.25.
Design the lighting layout of the office. **12**
- Q.7 What is the difference between Ambient, Accent and Task lighting? Design a small residence showing the lighting layout with proper symbols and fixtures. **12**

End Semester Examination, Dec. 2017
Bachelor of Architecture – Fourth Semester
THEORY OF DESIGN-II (AR-407)

Time: 3 hrs.
60

Max Marks:

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 Explain the following with the help of sketches.
a) The Red House by William Morris.
b) Formalism.
c) Art Deco in India.
d) The International Style.
e) Exterior Space.
4x5

PART-A

Q.2 What is a typical design process? Explain in brief through a flow chart.

10

Q.3 What are the features of Arts and Crafts Movement? Explain with sketches and examples.

10

Q.4 What are spatial relationships? What are the four types of spatial relationships? Explain with examples of buildings.

10

PART-B

Q.5 What are bubble diagrams? Explain four design factors that can be dealt with during the stage.

10

Q.6 How does building envelope act as a space defining element? Discuss the characteristics of a tolerance space.

10

Q.7 Develop a formatted post-occupancy evaluation form for a client in detail.

10

End Semester Examination, Dec. 2017

Bachelor of Architecture – Forth Semester

VERNACULAR ARCHITECTURE (AR-408)

Time: 3 hrs

60

Max Marks:

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 What is Vernacular Architecture? Discuss with the help of sketches about the influence of various determinants of Vernacular Architecture.

12

PART-A

Q.2 Define the following with examples:

- Hot and dry climate.
- Warm and humid.

c) Composite.

4x3

Q.3 Elaborate the impact for developing vernacular earthquake resistant structure. **12**

Q.4 What do you understand by the term vernacular? What are the factors which are responsible for making an Architecture that Vernacular? Do you agree that Vernacular is the need for today?

12

PART-B

Q.5 Define the following:

a) Coffered ceiling.

b) Thatch roof.

c) Log hut.

4x3

Q.6 Elaborate the vernacular construction technique from any one specific climatic region in India, with the help of sketches.

12

Q.7 How does the Disaster influence the Vernacular Architecture Development?

12

End Semester Examination, Dec. 2017

Bachelor of Architecture – Fifth Semester

HISTORY OF ARCHITECTURE-III (AR-504)

Time: 3 hrs

60

Max Marks:

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 question carries equal marks.

Q.1 Sketch one example of a temple from the below given categories of various Indian temples. (Sketch can be a plan or an elevation or a perspective)

a) Jainism.

b) Vesara Style.

c) Nagara Style.

d) Buddhism.

3x4

PART-A

Q.2 Explain any two examples of famous Hindu Temples from outside India.

12

Q.3 What are chaityas and Viharas? Explain their development in Ajanta caves built during early and late Buddhism period.

12

Q.4 What are the various types of shikharas used in North Indian Temples? Explain any one of the following temples:

- a) Lingraja Temple, Bhubaneswar.
- b) Khajuraho Temples, Madhya Pradesh.

12

PART-B

Q.5 Sketch and explain the architectural features of any one of the structural temples built during the chalukyan period.

12

Q.6 Explain the gradual growth of architecture from Indus Valley Civilization to the Mauryan period on the basis of styles of architecture, materials and construction strategies. **12**

Q.7 Discuss the architectural features of Brihadishwara Temple, Thanjavur.

12

End Semester Examination, Dec. 2017

Bachelor of Architecture – Fifth Semester

STRUCTURAL DESIGN-V (AR-505)

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**. Marks are indicated against each question.

PART-A

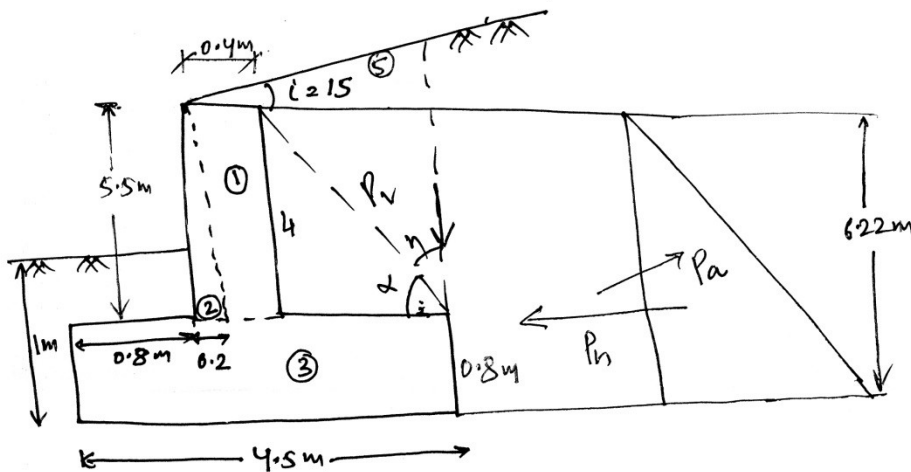
Q.1 Define the following:

- a) Retaining wall.
- b) Purlin with neat sketch.
- c) Browsing truss with a neat sketch.
- d) Welding.
- e) Bolting.
- f) Riveting
- g) Shear walls.
- h) Stiffness.
- i) Throat.
- j) Drainage of backfill in case of retaining wall.

2×10

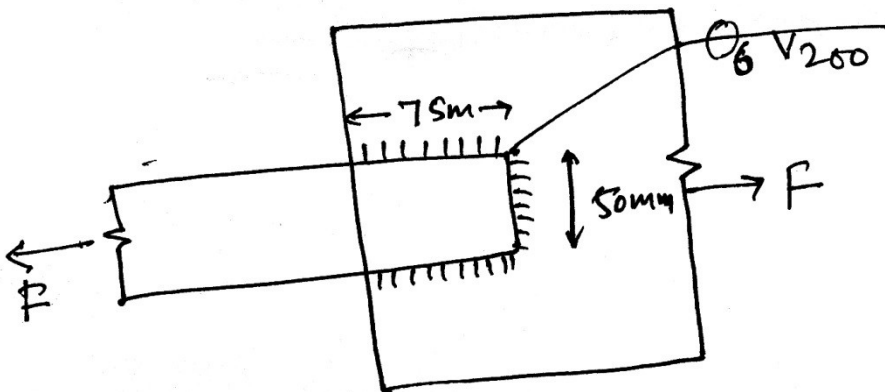
PART-B

- Q.2 Define shear walls. How are these classified? **10**
- Q.3 Describe different types of retaining walls with the help of sketches. **10**
- Q.4 Design a suitable fitted weld to connect a tie bar 75 mm x 10 mm to a 16 mm thick gusset plate. The permissible stresses in the toe bar and fillet weld are 200 MPa and 150 MPa respectively. **10**
- Q.5 Check the stability of the cantilever retaining wall. The allowable soil pressure is 600 kN/m^2 . $\phi' = 34^\circ$, $\delta = 25^\circ$, $\gamma = 19 \text{ kN/m}^3$, $\epsilon = 15$, $k_a = 0.311$.



10

- Q.6 A 16 mm thick plate is joined by double cover bolt joint using 10 mm thick cover plate. The permissible tensile strength (T_{at}) is 200 MPa. Determine the strength and efficiency of joint per pitch of 9 cm if 18 mm diameter power driven field rivets are used. **10**
- Q.7 Find the safe load that can be transmitted by the fillet welded joint shown in the figure, below the size of the weld is 6 mm.



10

End Semester Examination, Dec., 2017
Bachelor of Architecture – Fifth Semester
STRUCTURE DESIGN-V (AR-505)

Time: 3 hrs

Max Marks: **60**

No. of pages: 2

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.

(Use M20 grade concrete and Fe 415 grade steel in part A and Fe 250 in part B.)

Q.1 Answer the following:

- a) Draw a free hand sketch of cantilever type RW and mark its various components.
- b) What are the different forces acting on a RW? Name them.
- c) Define eccentricity in relation to RW.
- d) Explain 1/3 rd rule.
- e) Define lap joint.
- f) What are various modes by which a rivet joint can fail?
- g) Differentiate between lap joint and butt joint.
- h) Draw free hand sketch of any three composite tensile member.

1½x8

PART-A

- Q.2 a) Discuss various modes of failure of a retaining wall (RW)
4
- b) Design the stem of a cantilever RW. Soil weights 18000 kN/m^3 , angle of repose = 30° , height of stem = 5 Mtr.
8
- Q.3 a) The total height of a cantilever RW is 6 mtr. And height of the stem is 5.5 mtr. The top and bottom width of stem is 20 cms and 50 Cms respectively. Width of base slab is 3.5 mtr. And toe width is 1.0 mtr. Earth is filled upto top of stem. The face of stem towards earth fill is vertical. Soil density is 18000 kN/m^3 , concrete density = 25000 kN/m^3 , coefficient of friction = 0.6, angle of repose = 30° . Find out - factor of safety against sliding and over turning.
9
- b) Draw a neat sketch of cantilever type RW and mark the side in its various components where tension is acting.
3
- Q.4 Design the upright slab of a cantilever RW. Depth of upright slab= 6 mtr. Counter fort is provided at 4 mtr, apart. Use property of soil and concrete given in question 3 above. 12

PART-B

- Q.5 a) Describe the advantage of a welded joint in detail.
4
- b) Two plate each of size $100 \text{ mm} \times 10 \text{ mm}$ are connected together by a single rivet lap joint with three rivet in one row as shown in the figure 1. Dia of power driven field rivet is 18 mm and grade of plate and rivet is $F_y = 250 \text{ N/mm}^2$. Calculate efficiency of joints if plate are in tension. Also calculate efficiency when the rivet are staggered as shown in the figure 2.

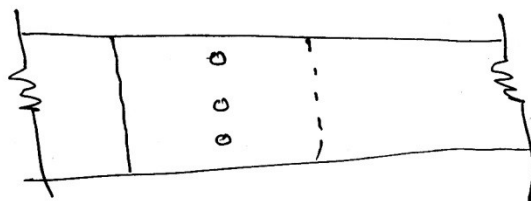


Figure-1

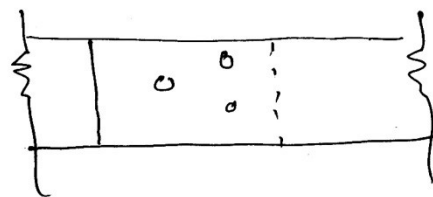


Figure-2

8

- Q.6 a) Write a short note on type of tension members.
4
- b) Design the riveted connection for a truss member, consisting of two angle. ISA $50 \times 50 \times 6 \text{ mm}$ placed back to back. It carries a tension of 100 kN and is connected to a gusset plate of 8 mm thickness. Gusset plate is placed in between the angles. Find out the dimension and number of Rivet.
8
- Q.7 a) Discuss state of equilibrium of a column.
3
- b) A double. Angle discontinuous strut ISA $125 \text{ mm} \times 95 \text{ mm} \times 10 \text{ mm}$ long leg back to back is connected to both side of a 10 mm thick gusset plate with 2 rivets at each end. Length of strut between centre of intersection

is 4 mtr. Determine the safe load carrying capacity of section.

9

End Semester Examination, Dec. 2017
Bachelor of Architecture – Fifth Semester
BUILDING ECONOMICS & TECHNOLOGIES-I (AR-506)

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**. Marks are indicated against each question.

Q.1 Explain the following:

- a) Role and importance of Building Economics in Architecture.
- b) Modular coordination.
- c) Non-Monetary benefits of Building.
- d) Break Even Analysis.

5×4

PART-A

Q.2 What are the principles for defining space norms and how they are beneficial for cost reduction process? "Planning, Designing and Specification of buildings help in cost reduction". Explain in your own words by giving examples.

10

Q.3 What are the role and importance of technologies, materials and various modular construction techniques in the economic performance of a building? **10**

Q.4 Describe various factors that should be considered in Economizing Building Economics. **10**

PART-B

Q.5 Explain important factors for comparative analysis of economics of low rise and high rise buildings. **10**

Q.6 Write a short essay on "Effect of Demonetization and GST on building economics or the real estate scenario of NCR". **10**

Q.7 Define total initial project cost of a building and discuss the various components and its impacts on cost of a building. **10**

End Semester Examination, Dec. 2017

Bachelor of Architecture – Fifth Semester

BUILDING SERVICES-III (AR-507)

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 What are the characteristics of Indoor and Outdoor lighting? Give three examples of each type with their advantages and disadvantages. **12**

PART-A

Q.2 What is the difference between Ambient, Accent and Task lighting? Design a residence showing the lighting layout with proper symbols and fixtures. **12**

Q.3 What are the principles of Acoustic? Explain three examples of hard and soft acoustic material with its advantages and disadvantages? **12**

- Q.4 A Shopping complex has area: 10 meter; width: 10 meter; height: 3.6 meter with a false ceiling of 600mm (2')
- The ceiling to desk height (Illuminated surface) is 3 meters.
 - The area is to be illuminated to a general level of 750 lux using lamp 40 watt. luminaries with a SHR of 1.25.
 - Each lamp has an initial output (Efficiency) of 120 lumen per watt.
 - The lamps Maintenance Factor (MF) is 0.63. Utilization Factor is 0.69 and space height ratio (SHR) is 1.25.

Design the lighting layout of the Commercial complex.

3×4

PART-B

- Q.5 Explain the following:
- Direct and Indirect lighting.
 - Color temperature.
 - Filament lighting.
- 4×3**
- Q.6 What is Day lighting? Explain the various active and passive ways for day lighting in a commercial building. **12**
- Q.7 What is Energy Efficient Lighting Scheme? Explain the luminaries which can be utilized for energy efficient lighting and its characteristic. **12**

End Semester Examination, Dec. 2017

Bachelor of Architecture – Fifth Semester

LANDSCAPE ARCHITECTURE-I (AR-508)

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**. Marks are indicated against each question.

- Q.1 Write short notes on the following:
- Residential neighborhood open space order.
 - Hard landscape.
 - Outdoor play courts.
 - Landscape furnishing.
 - Water management in landscape design.
- 4×5**

PART-A

- Q.2 How landscape design helps in enhancing an Architectural Project? **10**
- Q.3 Describe ecological planning sequence for sustainable site planning. **10**

- Q.4 Explain the salient features of any one historical garden. 10
- PART-B**
- Q.5 Discuss the use of plant types in Landscape Design. 10
- Q.6 Highlight the role of outdoor lighting in landscape design. 10
- Q.7 Discuss landscape project of any one Landscape Architect. 10

End Semester Examination, Dec. 2017

Bachelor of Architecture - Sixth Semester

ESTIMATING COSTING AND SPECIFICATIONS (AR-603)

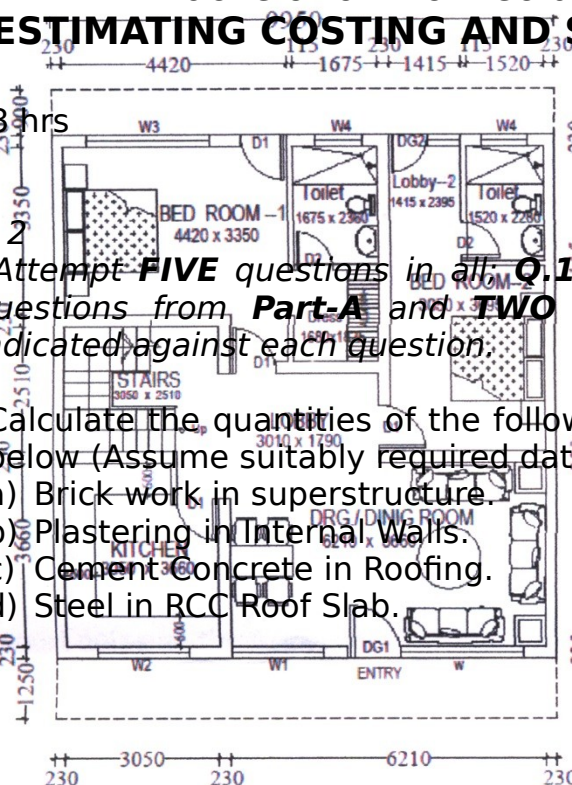
Time: 3 hrs
60

Max Marks:

pages: 2

Note: Attempt **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 Calculate the quantities of the following item of works from the plan given below (Assume suitably required data):
- Brick work in superstructure.
 - Plastering in Internal Walls.
 - Cement Concrete in Roofing.
 - Steel in RCC Roof Slab.



JOINERY DETAIL No. of

Mkd As	WIDTH	HEIGHT	Sill Level	Lintel Level
DG1	3500	2100	± 00	+2100
DG2	1415	2100	± 00	+2100
D1	900	2100	± 00	+2100
D2	750	2100	± 00	+2100
W1	2400	1300	+ 800	+2100
W2	1800	1000	+1100	+2100
W3	2400	1300	+ 800	+2100
W4	900	600	+1500	+2100

5x4

PART-A

Q.2 Write the units of measurements of the following items:

- a) Brick work in foundation.
- b) Wood work in door frames.
- c) Sand filling under floors.
- d) Plastering.
- e) Lean concrete in foundation.
- f) Brick work in superstructure.
- g) 4½" thick brick wall.
- h) Excavation of earth.
- i) Dismantling of brick work.
- j) Steel in RCC work.

10

Q.3 What are the different types of estimates? Discuss detailed the estimate in detail. **10**

Q.4 What is analysis of rates? Work out the rate analysis for 9" thick brick work in superstructure.

10

PART-B

Q.5 Write short notes on the following:

- a) Electrical fixture and fittings.
- b) Abstract of cost.
- c) Contingencies.
- d) Schedule of Rates.
- e) Muster Roll.

2x5

Q.6 Justify the need of specification writing. What do you understand about the Indian Standard Specifications? Discuss in detail.

10

- Q.7 Write down the specification of **(any two)** of the following:
- a) 9" thick brick work in foundation and plinth.
 - b) 12mm Cement Plaster in 1:3 cement mortar in ceiling.
 - c) M-20 Concrete in Roof Slab.

5x2

End Semester Examination, Dec. 2017
Bachelor of Architecture – Sixth Semester
HISTORY OF ARCHITECTURE-IV (AR-604)

Time: 3 hrs
60

Max Marks:

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 Comment on the statement. "Indian Architects post-independence were inspired by Modern Architecture".

20

PART-A

- Q.2 Explain three phase development of the town planning concept of Lutyen's Delhi. **10**

- Q.3 Explain the philosophies of A.P. Kanvinde through his works in his tenure as an Architect.

10

- Q.4 What is Indo-Saracenic Architecture? What are its characteristic features? Explain using example of a building. **10**

PART-B

- Q.5 Explain any one typical housing of Architect, Raj Rewal that also features his major design philosophies. **10**
- Q.6 What is colonial architecture? Explain the effect of colonization of Britishers and Portugese on the Indian Architecture. **10**
- Q.7 Explain the concept “open to sky” in relation with Charles Correa and his buildings. **10**

End Semester Examination, Dec. 2017
Bachelor of Architecture – Sixth Semester
STRUCTURAL DESIGN-VI (AR-605)

Time: 3 hrs.

Max Marks: **60**

No. of pages: 1

Note: Attempt **THREE** questions in all; **Part-A is compulsory**. Attempt any **TWO** questions from **Part-B**. Marks are indicated against each question.

PART-A

- Q.1 Explain the following:
- a) Purlin.
 - b) Truss
 - c) Rigid frame
 - d) Earthquake load.
 - e) Web Crippling.
 - f) Grillage foundation.
 - g) Bundled tube.
 - h) Weak storey.
 - i) Stiffening elements.
 - j) Weak girder strong column frame.

2×10

PART-B

- Q.2 Design a suitable grillage foundation for a column carrying 2000 kN load. The size of base plate is 750 mm × 750mm. Safe bearing capacity of the soil is 300 kN/m². Draw a neat sketch. **20**
- Q.3 Explain the following structural systems:
 a) Tube in Tube system.
 b) Braced frame system.
 c) Diagonal bracing system.
 d) Trussed frame.
 (Draw neat sketches for the above). **5×4**
- Q.4 Explain the following with neat sketches and its advantages:
 a) Braced structure frame.
 b) Portal structure frame.
 c) Gabled structural frame.
 d) Rigid frames. **5×4**

End Semester Examination, Dec. 2017
 Bachelor of Architecture – Sixth Semester
ARCHITECTURAL LEGISLATION (AR-606)

Time: 3 hrs
60

Max Marks:

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**. Marks are indicated against each question.

- Q.1 Write short notes on the following:
- a) Basement.
 - b) Minimum setbacks.
 - c) Arbitration Act.
 - d) Zoning line
 - e) Floor Area Ration (FAR)
 - f) Competent Authority.
 - g) Earthquake Resistant Buildings.
 - h) Non Compoundable Deviations in Buildings.
 - i) Carpet Area.
 - j) ECS.
- 2x10**

PART-A

- Q.2 Explain the need and importance of building byelaws and development control rules in improving the quality of development in a city.
10
- Q.3 Assuming any city, describe the requirements of submission of drawings and the process for getting approval or building permission.
10
- Q.4 Why it is necessary to categorize buildings? Briefly explain the different categories of buildings as specified in NBC 2005.
10

PART-B

- Q.5 What is heritage? Why it is necessary to protect heritage? In the light of conservation, explain the role of heritage regulations.
10
- Q.6 Explain the need and importance of Master Plan as promoter of planned development of cities. Evaluate how far Master Plans have been able to achieve their objectives. **10**
- Q.7 What is basic intent of Arbitration? Explain how the Arbitration is carried out under the Arbitration Act?
10

End Semester Examination, Dec. 2017

Bachelor of Architecture – Sixth Semester
GREEN AND INTELLIGENT BUILDINGS (AR-607)

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 any four criterias on which GRIHA Rating Systems credit a building to be evaluated.
12

PART-A

- Q.2 Explain the following:
a) Trombe Wall.
b) Solar Chimney.
c) Earth Berming.
d) Cross Ventilation.
3x4
- Q.3 What is energy efficient lighting? What are some of the techniques to achieve it? **12**

- Q.4 Explain any one building's case study either for a green building or for an intelligent building. **12**

PART-B

- Q.5 What are the differences between Green and Intelligent Buildings? **12**
- Q.6 What are the key issues to be taken care of while designing an intelligent Building? **12**
- Q.7 What is a Building Envelope? Write down High Performance Envelope Design Strategies. **12**

End Semester Examination, Dec. 2017

Bachelor of Architecture – Sixth Semester

BUILDING SERVICES IV (ENERGY SYSTEM AND HVAC) (AR-608)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

Note: Attempt **THREE** questions in all; **PART-A** is **compulsory**. Attempt any **TWO** questions from **PART-B**. Each question carries equal marks.

PART-A

- Q.1 Answer the following:
- a) What is vertical transportation?
 - b) What is the difference between Fan Coil Unit and AHU?
 - c) Which is preferred generally?
 - i) Return air by ducting
 - or
 - ii) Return air by false ceiling.
 - d) What do you mean by duct layout?
 - e) What is the name of the refrigeration cycle in chilling machine? Draw the same. **4x5**

PART-B

- Q.2 Draw and describe an Air Handling Unit (AHU) with all the relevant parts and indicating correct blower and duct position. Also, indicate valve arrangements. **20**

- Q.3 a) What is the difference between butterfly valve and balancing valve? Draw the schematic of both the valves. Also, draw and describe functioning of 3-way mixing valve.
10
- b) Draw a chilling machine with clear indication of water pipe lines and valves, gauges etc. at the inlet and outlet (schematic only).
10
- Q.4 a) What is lift bank? Write down the formula of handling capacity with clear defining of each term.
10
- b) What is RTT? Write down the sum of different times considered during RTT. **10**

End Semester Examination, Dec. 2017
Bachelor of Architecture – Seventh Semester
URBAN DESIGN (AR-703)

Time: 3 hrs
60

Max Marks:

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 What is Urban Design? Compare between Architecture, Urban Design and Urban Planning.
12

PART-A

- Q.2 What are the different phases of the Urban Design Process? Describe them in brief. **12**
- Q.3 Explain theory of Kevin Lynch, in detail, explaining five elements of city.
12
- Q.4 Explain Determinants of Urban Form.
12

PART-B

- Q.5 Discuss the importance of Urban Public Spaces in cities making reference to streets and squares.
12
- Q.6 Describe with illustration, the five elements used to construct the Image of an Urban Area. Describe with illustration, the basic elements used to develop the Town scape of an Urban Area.
12
- Q.7 What are the institutions involved in urban design formulation? Explain its role and importance.
12

End Semester Examination, Dec. 2017
Bachelor of Architecture – Seventh Semester
TRAFFIC AND TRANSPORTATION (AR-704)

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 Write short notes on the following:
a) Transit oriented development.
b) Design of rotary.
c) Merging and Weaving.
d) Accident and symbols employed in collision diagram. **5×4**

PART-A

- Q.2 Why is the study of transport planning necessary in town planning and explain its relevance today. **10**
- Q.3 Write in detail about transportation system management. **10**
- Q.4 Explain in detail the various grade separated intersections with diagrams. **10**

PART-B

- Q.5 What are the various types of Traffic signs? Elaborate with diagrams. **10**

- Q.6 What is the difference between journey time and running time? What is the best method for measuring journey speed, running speed, flow, stops at intersections, delays and parked vehicles? **10**
- Q.7 What are the types of parking surveys? Explain parking space inventory in detail, with diagrams. **10**

End Semester Examination, Dec. 2017
Bachelor of Architecture – Seventh Semester
INTERIOR DESIGN (AR-706)

Time: 3 hrs
60

Max Marks:

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 Define the following:
a) Furniture Style.
b) Barrier free design.
c) Fitted furniture also known as built in furniture.

4x3

PART-A

- Q.2 What do you understand by size, volume, proportion and scale of a space? Explain. **12**
- Q.3 Elaborate the qualities of a space with regard to its effect on the interior design possibilities.
12

- Q.4 Enumerate and detail the elements, objects and other items used for special effect in an interior to enhance its visual appeal.
12

PART-B

- Q.5 Explain the most important design factors in the interior of a hospitality project with particular theme.
12
- Q.6 Draw a view of an office interior with exposed coffered ceiling showing lighting etc.**12**
- Q.7 Explain the role of height and its importance in an interior design project.
12

End Semester Examination, Dec. 2017
Bachelor of Architecture – Seventh Semester
HOUSING FOR URBAN POOR (AR-707)

Time: 3 hrs
60

Max Marks:

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 What do you understand by the term Slums. Explain briefly the origin and the problems associated with the slums. Revisit the Housing Scenario in NCR or with reference to any other city familiar with. Review the impact of Demonetization and GST on real estate.
20

PART-A

- Q.2 Explain the role and importance of Housing in light Maslow's Law.
10
- Q.3 Explain several policies and schemes adopted by Government for improvement of Slum.
10

Q.4 What do you understand by Housing Finance Institutions? Explain.
10

PART-B

Q.5 Write in detail critical evaluation of Pradhan Mantri Awas Yojna.
10

Q.6 Explain affordable housing and basic housing norms and standards for EWS, LIG and MIG by John Lang la Salle based on:
a) Minimum volume of habitation.
b) Provision of Basic Amenities.
c) Cost of the House.
d) Location of the House.
10

Q.7 How HUDCO served as the principal institution to finance Government-supported housing programmes? Explain.
10

End Semester Examination, Dec. 2017
Bachelor of Architecture – Seventh Semester
SMART CITIES (AR-708)

Time: 3 hrs
60

Max Marks:

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 Enumerate and explain, which according to you, are the four most essential smart technologies which can be used to upgrade an existing city into a smart one? **12**

PART-A

Q.2 Elaborate the role of an Architect in the designing of a new Smart City right from the concept stage.
12

Q.3 Explain the importance of public participation in the development of a Smart City. **12**

- Q.4 Give reasons as to why most well planned schemes in city development fail to achieve their intended targets?
12

PART-B

- Q.5 Enumerate and explain the various information and communication technologies which can help in making our existing cities in to a smart one.
12

- Q.6 Write down the role, the Government and other allied agencies can play in easing the process of improving cities and making them a smart one.
12

- Q.7 Quote and detail an example of the making of a Smart City from outside of India.
12

End Semester Examination, Dec. 2017

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**. Marks are indicated against each question.

- Q.1 Write short notes on the following:
a) Color mixing.
b) Color dimensions.
c) Contrast of complement.
d) Eco friendly components in paint. **2×4**

PART-A

- Q.2 Draw and describe Color Wheel. **8**
- Q.3 Briefly describe the research done on the psychology of color by (**any two**) color theorists from the following:
a) Faber Birren.
b) Leonardo Da Vinci.
c) Michel Eugene Chevreul. **4×2**

- Q.4 Briefly describe (**any two**) color schemes of each:
a) Harmony
b) Contrast. **4×2**

PART-B

- Q.5 Write a Design Concept and compose two wall paper designs for an interior space of a residence using any two principles of design and color as an element. **8**
- Q.6 Describe the factors which influence the way color schemes are used in planning an Interior design. **8**
- Q.7 Discuss Color Trends. **8**

End Semester Examination, Dec. 2017

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) Differentiate between value and intensity of a color.
d) Color symbolism. **2×4**

PART-A

- Q.2 Draw color wheel and explain how all colors can be created by using the three primary colors. **8**
- Q.3 Represent a composition in two different ways; one using two analogous colors (with only one of them a primary color) and second using two complementary colors. **8**

Q.4 Describe the research done on the psychology of color as studied by any two colors theorist. **8**

PART-B

Q.5 What factors influence the way color schemes are used in planning an interior design? **8**

Q.6 Discuss briefly the color trends in any two recongnised historical periods. **8**

Q.7 Discuss the factors that leads color to have a psychological impact on people. **8**

End Semester Examination, Dec. 2017

B. Sc. (Interior Design) – First Semester

ELEMENTS AND PRINCIPLES OF OUR ENVIRONMENT (351.104)

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**. Marks are indicated against each question.

Q.1 Write short notes on the following with suitable sketches:

- a) Emphasis.
- b) Proportion.
- c) Harmony.
- d) Rhythm.

2×4

PART-A

Q.2 Define the relationship between multi-cultural life and urban design. **8**

Q.3 Explain Gestalt principles, in detail with sketches. Draw a composition, using any one of the laws of Gestalt theory. **8**

Q.4 What are the elements of Design? Explain with illustrations. **8**

PART-B

Q.5 Form is an essential element of Design. Comment in 250 words. **8**

Q.6 Explain a principle of design (with a sketch) that artists use to create visual weight. **8**

Q.7 Explain different ways to create Rhythm in design. Support with suitable illustrations. **8**

End Semester Examination, Dec. 2017

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**. All questions carry equal marks.

Q.1 Define the following terms (**any four**):

- a) Veneering.
- b) Inlay.
- c) Carving.
- d) Fresco.
- e) Mosaic.
- f) Acanthus.

2x4

PART-A

Q.2 Discuss in detail salient features of Roman furniture, culture and tradition with suitable example and pictorial representation.
8

Q.3 Egyptian Civilization is one of the greatest civilizations in terms of furniture and construction. Describe the characteristics and furniture styles of this era with suitable examples.
8

Q.4 Discuss in detail Greek Civilization. Explain the key characteristics of furniture style with suitable examples.
8

PART-B

Q.5 Give a brief about Jacobean Furniture, including key features along with one furniture sketch.
8

Q.6 Describe English Renaissance, in detail, with suitable example.
8

Q.7 Describe LOUIS XV era of furniture making with key features, motifs, material etc along with a neat furniture sketch.
8

End Semester Examination, Dec. 2017

B.Sc. (Interior Design) – First Semester
COMMUNICATION-I (351.107)

Time: 3 hrs
40

Max Marks:

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) Communication Process.

- c) Importance of customer relations.
 - d) Netiquettes
- 4x2**

PART-A

- Q.2 What is the meaning of the sentence “Listening effectively is a Business Solution”? In the light of given statement, discuss the Do’s and Dont’s of good listening. **8**
- Q.3 Write an email to your friend requesting him/her to plan an outstation trip to Chandigarh. Discuss in details, all the activities that you would plan during your stay. **8**
- Q.4 What is Assertive Communication? What is the difference between Assertive, Aggression and Passive Communicator?
8

PART-B

- Q.5 Write a paragraph on **(any one)** of the topics (approximately 300 words):
- a) An invention that transformed the world.
- Or
- b) The environment: problem and solution.
8
- Q.6 What are the various non-verbal parameters one needs to keep in mind while giving a presentation?
8
- Q.7 What is Conflict resolution? What are the various ways of resolving conflict?
8

End Semester Examination, Dec. 2017
B. Sc. (Interior Design) – First Semester
MATERIALS AND FINISHES-I (351-108)

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 Describe briefly:
- Radiant Heat Flooring.
 - Engineered wood.
 - VOC.
 - Budget estimate.
- 2x4**

PART-A

- Q.2 Suggest type of woods for door that can be used in for residential space and explain in detail, the manufacturing process till finishing stage of a door. **8**
- Q.3 List out the variety of floor covering materials and explain, in detail, any one material of your choice suggesting which all spaces it can be used in and why? **8**
- Q.4 Explain the performance, properties and application of any four different materials. **8**

PART-B

- Q.5 Write about the types of wall covering materials and their application process. **8**
- Q.6 Explain in detail the three steps in the process of transforming a skin into a piece of leather. **8**
- Q.7 Select materials for residential projects based on knowledge of the manufacturing process using the three pillars of sustainability through social, economic and environmental practices. **8**

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

- a) Rococo Style.
- b) Neoclassical Style.
- c) Victorian Style.

4x2

PART-A

Q.2 Differentiate between different styles of any two furniture makers in Neoclassical Styles.

8

Q.3 Discuss Victorian Era, in detail.

8

Q.4 Draw a neat sketch of neoclassical furniture with its features.

8

PART-B

Q.5 Describe briefly (**any two**):

- a) Arts and Crafts.
- b) Art Deco.
- c) Art Nouveau.
- d) Bauhaus School of Design.

4x2

Q.6 Distinguish between different renown designers and give examples on how they have influenced furniture designers of the 21st century?

8

Q.7 Describe Scandinavian furniture, in detail with neat sketches.

8

OR

Discuss the socio-economic reasons, furniture construction changes over the decades.

8

End Semester Examination, Dec. 2017

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**. Each question carries equal marks.

Q.1 What is effective communication skills any why it is important in Interior Designing? Explain the different types of communication barrier.

8

PART-A

Q.2 Write paragraph on:

- Different types of communication skills.
- Importance and variety of vocal techniques.

4x2

Q.3 Write a proposal for a client who wants to renovate his residence. The proposal should follow the complete format with all the details.

8

Q.4 Write short notes on:

- Power point presentation techniques.
- Role of themes in Interior designing.

4x2

PART-B

Q.5 Write a letter to the secretary of your housing society complaining him about the improper drainage layout causing water logging in the parking area and requesting him to find a solution to the existing problem.

8

Q.6 What are Memos? What are the different purposes of writing memorandum? Explain it with one example.

8

Q.7 What are formal and informal letters? Differentiate them with one example of each type.

8

End Semester Examination, Dec. 2017

B. Sc. (Interior Design) – Second Semester

MATERIALS AND FINISHES-II (351.209)

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 Production Network and methods used in manufacturing of Textiles.
8

PART-A

Q.2 Make a budget estimate for 20'×20' room with workstation. Explain, in detail.
8

Q.3 Identify soft products and materials used in residential settings.
8

Q.4 How do you blend pattern, texture and colour?
8

PART-B

Q.5 Choose appropriate textiles for bedroom size 10'×12'×10'. Explain in detail.
8

Q.6 Discuss textiles from different cultures based on composition, manufacturing processes, and weaving techniques used.
8

Q.7 Discuss the advantages and disadvantages of blending natural and man-made fibers.
8

End Semester Examination, Dec. 2017

B. Sc. (Interior Design) – Second Semester

GENERAL EDUCATION ELECTIVE (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**. Each question carries equal marks.

Q.1 What are the different barriers in effective communication?

8

PART-A

Q.2 What is service marketing? How is it different from the product marketing?

8

Q.3 Why are group discussions important?

8

Q.4 What is to be written in a memo? How do you plan the presentation?

8

PART-B

Q.5 What are the types of communication skills? List and elaborate.

8

Q.6 How do you identify barriers in communication?

8

Q.7 How is Purchase Order different from a Work Order?

8

End Semester Examination, Dec. 2017
B. Sc. (Interior Design) - Second Semester
WINDOW 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 Define the following terms (**any four**):

- a) Curtain.
- b) Blinds.
- c) Beddings.
- d) Mouldings.
- e) Heading.
- f) Drapery.

2x4

PART-A

Q.2 Define soft furnishings, in detail. Discuss various parts of soft furnishings with suitable examples.

8

Q.3 Define the term 'Window treatment'. Discuss, in detail, the factors to be kept in mind while selecting treatments for a window.

8

Q.4 Define 're-upholstery'. Discuss, in detail, the advantages and disadvantages of the same.

8

PART-B

Q.5 How can different period styles of window treatments be co-ordinated with Interior Design? Give examples.

8

Q.6 Pillows are available in wide variety in the market. So, suggest some options to your client giving pros and cons of each option.

8

Q.7 Explain latest trends in window treatments with suitable sketches. Also, specify the use of principles of design in treating a window.

8

End Semester Examination, Dec. 2017

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 Define the following terms (**any four**):

- a) Memory.
- b) Extrovert.
- c) Personality.
- d) Learning.
- e) Introvert.
- f) Personality Trait.

2x4

PART-A

Q.2 Discuss Sigmund Freud's theory in detail.

8

Q.3 Define the term Psychology along with its various fields.

8

Q.4 Discuss in detail Reinforcement.

8

PART-B

Q.5 Discuss in detail Emotions.

8

Q.6 Define the term Psychological Disorders. Discuss in detail various causes of these disorders.

8

Q.7 Write short notes on **(any two)**:

- a) Parenting style.
- b) Body Image in Media.
- c) Attachment.

4x2

End Semester Examination, Dec. 2017

B.Sc. (Interior Design) – Third 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**. Each question carries equal marks.

Q.1 Define **(any four)** the terms with sketches:

- a) Efficacy.
- b) Lumens.
- c) Diffused Light.
- d) Task Light.
- e) Recessed Light.
- f) Luminaire.

g) Illuminance.
2x4

PART-A

- Q.2 Explain and draw the neat sketches of various methods of light discernment. **8**
- Q.3 Discuss the factors to be kept in mind while selecting lighting for a living room. Elaborate your answer with suitable examples.
8
- Q.4 Write short notes on:
a) Levels of lighting.
b) Types of lighting fixtures.
c) Types of bulbs.
4x2

PART-B

- Q.5 Discuss in detail various types of light accessories along with their uses in an interior space with neat and appropriate sketches.
8
- Q.6 Define RCP. List various symbols used in the lighting layout.
8
- Q.7 a) Differentiate between artificial and natural light.
b) Explain the criteria for Fixture selection.
8

End Semester Examination, Dec. 2017
Bachelor of Science (Interior Design)-Third Semester
MARKETING TECHNIQUES (351.307)

Time: 3 hrs
40

Max Marks.

No. of pages:

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 question carries equal marks

Q.1 Define the following terms (**ANY FOUR**):

- a) Retailer
- b) Demand
- c) Marketing Management
- d) Advertisement
- e) Marketing Plan
- f) Marketing Mix

2x4

PART-A

Q.2 Define the term Targeting. Discuss, in detail, how will you target market before launching a new product/service etc.

8

Q.3 Discuss, in detail, distribution channel with appropriate examples.

8

Q.4 Define Selling Process. Briefly, describe different Approach Techniques through diagrammatic representation.

8

PART-B

Q.5 Write short notes on (**any two**):

- a) FAB
- b) Positioning
- c) STP model

4x2

Q.6 Define the term Segmentation. Briefly discuss levels and basis of segmentation. **8**

Q.7 Define HRM. Discuss, in detail, scope and nature.

8

End Semester Examination, Dec. 2017

B.Sc. (Interior Design) - Third Semester

LIVING GREEN (351-309)

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 Define the following:
- Composting.
 - Acid Rain.
 - Ecofriendly Wallpaper.
 - Ecofriendly Garden.
- 2x4**

PART-A

- Q.2 What is solar passive architecture? Explain any two methods used for passive heating.
8
- Q.3 Explain in detail LEED as a Green Building Certification Program, using one case study as an example.
8
- Q.4 How can you reduce the heating and cooling costs in a building?
8

PART-B

- Q.5 How can you make your interiors green by working on the following?
- Water efficiency.
 - Environmental efficiency.
- 8**
- Q.6 Describe some methods by which interior landscaping can be done in buildings to improve the air quality.
8
- Q.7 What is sustainable transportation? How can you make transportation sustainable? Explain by examples.
8

End Semester Examination, Dec. 2017
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 Define the following terms (**any four**):

- a) Curriculum Vitae.
- b) Retailer.
- c) Contract.
- d) Time Management.
- e) Exhibition.
- f) General partnership.

2x4

PART-A

Q.2 Discuss, in detail, Agreement and its forms with suitable examples.

8

Q.3 Communication plays an important role in Interior Design. Justify the statement with suitable examples.

8

Q.4 Discuss in detail 'Designers' Code of Ethics'.

8

PART-B

Q.5 Define Portfolio. Discuss, in detail, the requirements of an Interior design portfolio and tips to improve the presentation.

8

Q.6 Discuss in detail procedures followed in an Interior Design Project. Describe each step with suitable examples.

8

Q.7 Write short notes on (**any two**) of the following:

- a) Joint Ventures.
- b) General Contractors.
- c) Tort Law.

4x2

End Semester Examination, Dec. 2017

B. Sc. (Interior Design) – Fifth Semester ESTIMATING AND COSTING (351.510)

Time: 3 hrs.

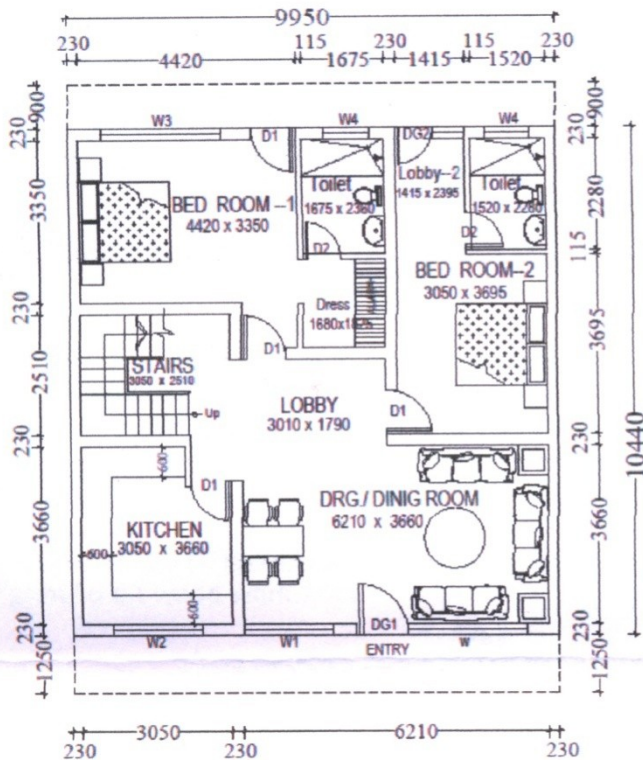
Max Marks: **40**

No. of pages: 2

Note: Attempt **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 Work out the estimated cost for renovation of the residence whose plan is given below for the following items (Assume suitably required data):

- i) Marble stone flooring @ ₹1000/- per sqm. **4**
- ii) Plastic emulsion on walls @ ₹200/- per sqm. **5**
- iii) Glazed tiles in toilet walls up to 7'-0" Ht. @ ₹500/- per sqm.



JOINERY DETAIL

Mkd As	WIDTH	HEIGHT	Sill Level	Lintel Level
DG1	3500	2100	± 00	+2100
DG2	1415	2100	± 00	+2100
D1	900	2100	± 00	+2100
D2	750	2100	± 00	+2100
W1	2400	1950	+ 150	+2100
W2	1800	1000	+1100	+2100
W3	2400	1300	+ 800	+2100
W4	900	600	+1500	+2100

3

PART-A

Q.2 Write the units of measurements of the following items of works:

- a) Partition walls.
- b) Wood work in door frames.

- c) False ceiling.
- d) Plastering.
- e) Glass work.
- f) Flooring.
- g) Skirting.
- h) Wall paper.
- i) 9" thick brick wall.
- j) Door opening in 9" th. brick wall.
- k) Cornice.
- l) White washing.
- m) Door window shutters.
- n) Plaster of paris.

½×14

- Q.3 What are different types of estimates? Discuss detailed estimate in detail. **7**
- Q.4 What is analysis of rates? Work out the rate analysis for painting one coat over a coat of priming on wood work. **7**

PART-B

- Q.5 Write short notes on the following:
- a) Abstract of cost.
 - b) Need for estimating and costing.
 - c) Electrical fixtures & fittings.
 - d) Contingencies.
 - e) Schedule of Rates.
 - f) Administrative Sanction/Approval
 - g) Muster Roll.
- 1×7**
- Q.6 Define Specifications and what are its objectives. **7**
- Q.7 Write down the specification (**any one**) of the following:
- a) Painting in two coats on wooden door windows.
 - b) Marble stone flooring.
- 7**

End Semester Examination, Dec. 2017
Bachelor of Science (Interior Design) - Sixth Semester
MATERIAL FINISHES AND DESIGN TRENDS (351.610)

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 question carries equal marks.

Q.1 Write a descriptive note on African style interior space suggesting the key elements to be included.

8

PART-A

Q.2 "Art and Accessories of any area influences the overall appearance of a space". Justify the statement considering Indian Art and craft with suitable examples.

8

Q.3 Write a note on Color and Interior Design.

8

Q.4 Write a note on Recycling and its importance in Interior Design.

8

PART-B

Q.5 Discuss, in detail, types of fabrics along with their usage and importance in Interior Design.

8

Q.6 Briefly discuss latest Furniture styles and materials in trend.

8

Q.7 Write short notes on **(any two)**:

- a) Sustainable Design.
- b) European style furniture.
- c) Leather.

4x2

End Semester Examination, Dec. 2017
B. Sc. (Interior Design) – Sixth Semester
PROFESSIONAL PRACTICE AND PROJECT REPORT
PRESENTATION
(351.611)

Time: 3 hrs.
40

Max Marks:

No. of pages: 1

Note: Attempt **FOUR** questions in all; **Q.1 is compulsory**. Attempt any **THREE** questions from **PART-A**. Each question carries equal marks.

- Q.1 Write short notes on the following:
- a) Billing Rate.
 - b) Letter of Agreement.
 - c) Professional Conduct.
 - d) Professional Organizations.
 - e) Tenders.
- 2x5**

PART-A

- Q.2 What is Interior Design? Explain four methods by which an interior designer can charge their design fees?
10
- Q.3 Enlist some Promotional Methods to market interior design as a profession.
10
- Q.4 What are professional ethics? How do you think they are important for an interior designer's firm? Explain.
10
- Q.5 What is a Contract? What are the various elements of a contract? Explain.
10

End Semester Examination, Dec. 2017

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**. Marks are indicated against each question.

Q.1 Write short notes on the following:

- a) Color mixing.
- b) Color dimensions.
- c) Contrast of complement.
- d) Eco friendly components in paint.

2×4

PART-A

Q.2 Draw and describe Color Wheel.

8

Q.3 Briefly describe the research done on the psychology of color by **(any two)** color theorists from the following:

- a) Faber Birren.
- b) Leonardo Da Vinci.
- c) Michel Eugene Chevreul.

4×2

Q.4 Briefly describe **(any two)** color schemes of each:

- a) Harmony
- b) Contrast.

4×2

PART-B

- Q.5 Write a Design Concept and compose two wall paper designs for an interior space of a residence using any two principles of design and color as an element. **8**
- Q.6 Describe the factors which influence the way color schemes are used in planning an Interior design. **8**
- Q.7 Discuss Color Trends. **8**

End Semester Examination, Dec. 2017

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:
- Color sensation.
 - Additive color mixing method.
 - Differentiate between value and intensity of a color.
 - Color symbolism.

2×4

PART-A

- Q.2 Draw color wheel and explain how all colors can be created by using the three primary colors. **8**
- Q.3 Represent a composition in two different ways; one using two analogous colors (with only one of them a primary color) and second using two complementary colors. **8**
- Q.4 Describe the research done on the psychology of color as studied by any two colors theorist. **8**

PART-B

- Q.5 What factors influence the way color schemes are used in planning an interior design? **8**

- Q.6 Discuss briefly the color trends in any two recognised historical periods. **8**
- Q.7 Discuss the factors that leads color to have a psychological impact on people. **8**

End Semester Examination, Dec. 2017

B. Sc. (Interior Design) – First Semester

ELEMENTS AND PRINCIPLES OF OUR ENVIRONMENT (351.104)

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**. Marks are indicated against each question.

- Q.1 Write short notes on the following with suitable sketches:
- a) Emphasis.
 - b) Proportion.
 - c) Harmony.
 - d) Rhythm.

2×4

PART-A

- Q.2 Define the relationship between multi-cultural life and urban design. **8**
- Q.3 Explain Gestalt principles, in detail with sketches. Draw a composition, using any one of the laws of Gestalt theory. **8**
- Q.4 What are the elements of Design? Explain with illustrations. **8**

PART-B

- Q.5 Form is an essential element of Design. Comment in 250 words. **8**

- Q.6 Explain a principle of design (with a sketch) that artists use to create visual weight. **8**
- Q.7 Explain different ways to create Rhythm in design. Support with suitable illustrations. **8**

End Semester Examination, Dec. 2017
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**. All questions carry equal marks.

- Q.1 Define the following terms (**any four**):
- a) Veneering.
 - b) Inlay.
 - c) Carving.
 - d) Fresco.
 - e) Mosaic.
 - f) Acanthus.
- 2x4**

PART-A

- Q.2 Discuss in detail salient features of Roman furniture, culture and tradition with suitable example and pictorial representation. **8**
- Q.3 Egyptian Civilization is one of the greatest civilizations in terms of furniture and construction. Describe the characteristics and furniture styles of this

era with suitable examples.

8

Q.4 Discuss in detail Greek Civilization. Explain the key characteristics of furniture style with suitable examples.

8

PART-B

Q.5 Give a brief about Jacobean Furniture, including key features along with one furniture sketch.

8

Q.6 Describe English Renaissance, in detail, with suitable example.

8

Q.7 Describe LOUIS XV era of furniture making with key features, motifs, material etc along with a neat furniture sketch.

8

End Semester Examination, Dec. 2017

B.Sc. (Interior Design) – First Semester

COMMUNICATION-I (351.107)

Time: 3 hrs

40

Max Marks:

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) Communication Process.
- c) Importance of customer relations.
- d) Netiquettes

4x2

PART-A

- Q.2 What is the meaning of the sentence “Listening effectively is a Business Solution”? In the light of given statement, discuss the Do’s and Dont’s of good listening. **8**
- Q.3 Write an email to your friend requesting him/her to plan an outstation trip to Chandigarh. Discuss in details, all the activities that you would plan during your stay. **8**
- Q.4 What is Assertive Communication? What is the difference between Assertive, Aggression and Passive Communicator?
8

PART-B

- Q.5 Write a paragraph on **(any one)** of the topics (approximately 300 words):
a) An invention that transformed the world.
Or
b) The environment: problem and solution.
8
- Q.6 What are the various non-verbal parameters one needs to keep in mind while giving a presentation?
8
- Q.7 What is Conflict resolution? What are the various ways of resolving conflict?
8

End Semester Examination, Dec. 2017

B. Sc. (Interior Design) – First Semester MATERIALS AND FINISHES-I (351-108)

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 Describe briefly:
a) Radiant Heat Flooring.

- b) Engineered wood.
 - c) VOC.
 - d) Budget estimate.
- 2x4**

PART-A

- Q.2 Suggest type of woods for door that can be used in for residential space and explain in detail, the manufacturing process till finishing stage of a door. **8**
- Q.3 List out the variety of floor covering materials and explain, in detail, any one material of your choice suggesting which all spaces it can be used in and why? **8**
- Q.4 Explain the performance, properties and application of any four different materials. **8**

PART-B

- Q.5 Write about the types of wall covering materials and their application process. **8**
- Q.6 Explain in detail the three steps in the process of transforming a skin into a piece of leather. **8**
- Q.7 Select materials for residential projects based on knowledge of the manufacturing process using the three pillars of sustainability through social, economic and environmental practices. **8**

End Semester Examination, Dec. 2017
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 Write short notes on (**any two**):

- a) Rococo Style.
- b) Neoclassical Style.
- c) Victorian Style.

4x2

PART-A

Q.2 Differentiate between different styles of any two furniture makers in Neoclassical Styles.

8

Q.3 Discuss Victorian Era, in detail.

8

Q.4 Draw a neat sketch of neoclassical furniture with its features.

8

PART-B

Q.5 Describe briefly (**any two**):

- a) Arts and Crafts.
- b) Art Deco.
- c) Art Nouveau.
- d) Bauhaus School of Design.

4x2

Q.6 Distinguish between different renown designers and give examples on how they have influenced furniture designers of the 21st century?

8

Q.7 Describe Scandinavian furniture, in detail with neat sketches.

8

OR

Discuss the socio-economic reasons, furniture construction changes over the decades.

8

End Semester Examination, Dec. 2017

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**. Each question carries equal marks.

Q.1 What is effective communication skills any why it is important in Interior Designing? Explain the different types of communication barrier.

8

PART-A

Q.2 Write paragraph on:

- a) Different types of communication skills.
- b) Importance and variety of vocal techniques.

4x2

Q.3 Write a proposal for a client who wants to renovate his residence. The proposal should follow the complete format with all the details.

8

Q.4 Write short notes on:

- a) Power point presentation techniques.
- b) Role of themes in Interior designing.

4x2

PART-B

Q.5 Write a letter to the secretary of your housing society complaining him about the improper drainage layout causing water logging in the parking area and requesting him to find a solution to the existing problem.

8

Q.6 What are Memos? What are the different purposes of writing memorandum? Explain it with one example.

8

Q.7 What are formal and informal letters? Differentiate them with one example of each type.

8

End Semester Examination, Dec. 2017

B. Sc. (Interior Design) – Second Semester MATERIALS AND FINISHES-II (351.209)

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 Production Network and methods used in manufacturing of Textiles.
8

PART-A

Q.2 Make a budget estimate for 20'×20' room with workstation. Explain, in detail.
8

Q.3 Identify soft products and materials used in residential settings.
8

Q.4 How do you blend pattern, texture and colour?
8

PART-B

Q.5 Choose appropriate textiles for bedroom size 10'×12'×10'. Explain in detail.
8

Q.6 Discuss textiles from different cultures based on composition, manufacturing processes, and weaving techniques used.
8

Q.7 Discuss the advantages and disadvantages of blending natural and man-made fibers.
8

End Semester Examination, Dec. 2017

B. Sc. (Interior Design) – Second Semester GENERAL EDUCATION ELECTIVE (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**. Each question carries equal marks.

Q.1 What are the different barriers in effective communication?

8

PART-A

Q.2 What is service marketing? How is it different from the product marketing?

8

Q.3 Why are group discussions important?

8

Q.4 What is to be written in a memo? How do you plan the presentation?

8

PART-B

Q.5 What are the types of communication skills? List and elaborate.

8

Q.6 How do you identify barriers in communication?

8

Q.7 How is Purchase Order different from a Work Order?

8

End Semester Examination, Dec. 2017
B. Sc. (Interior Design) - Second Semester
WINDOW 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 Define the following terms (**any four**):

- a) Curtain.
- b) Blinds.
- c) Beddings.
- d) Mouldings.
- e) Heading.
- f) Drapery.

2x4

PART-A

Q.2 Define soft furnishings, in detail. Discuss various parts of soft furnishings with suitable examples.

8

Q.3 Define the term 'Window treatment'. Discuss, in detail, the factors to be kept in mind while selecting treatments for a window.

8

Q.4 Define 're-upholstery'. Discuss, in detail, the advantages and disadvantages of the same.

8

PART-B

Q.5 How can different period styles of window treatments be co-ordinated with Interior Design? Give examples.

8

Q.6 Pillows are available in wide variety in the market. So, suggest some options to your client giving pros and cons of each option.

8

Q.7 Explain latest trends in window treatments with suitable sketches. Also, specify the use of principles of design in treating a window.

8

End Semester Examination, Dec. 2017

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 Define the following terms (**any four**):

- a) Memory.
- b) Extrovert.
- c) Personality.
- d) Learning.
- e) Introvert.
- f) Personality Trait.

2x4

PART-A

Q.2 Discuss Sigmund Freud's theory in detail.

8

Q.3 Define the term Psychology along with its various fields.

8

Q.4 Discuss in detail Reinforcement.

8

PART-B

Q.5 Discuss in detail Emotions.

8

Q.6 Define the term Psychological Disorders. Discuss in detail various causes of these disorders.

8

Q.7 Write short notes on **(any two)**:

- a) Parenting style.
- b) Body Image in Media.
- c) Attachment.

4x2

End Semester Examination, Dec. 2017

B.Sc. (Interior Design) – Third 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**. Each question carries equal marks.

Q.1 Define **(any four)** the terms with sketches:

- a) Efficacy.
- b) Lumens.
- c) Diffused Light.
- d) Task Light.
- e) Recessed Light.
- f) Luminaire.
- g) Illuminance.

2x4

PART-A

Q.2 Explain and draw the neat sketches of various methods of light discernment.

8

Q.3 Discuss the factors to be kept in mind while selecting lighting for a living room. Elaborate your answer with suitable examples.

8

Q.4 Write short notes on:

- a) Levels of lighting.
- b) Types of lighting fixtures.
- c) Types of bulbs.

4x2

PART-B

Q.5 Discuss in detail various types of light accessories along with their uses in an interior space with neat and appropriate sketches.

8

Q.6 Define RCP. List various symbols used in the lighting layout.

8

Q.7 a) Differentiate between artificial and natural light.

b) Explain the criteria for Fixture selection.

8

End Semester Examination, Dec. 2017

Bachelor of Science (Interior Design)-Third Semester

MARKETING TECHNIQUES (351.307)

Time: 3 hrs

40

Max Marks.

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 question carries equal marks

Q.1 Define the following terms (**ANY FOUR**):

- a) Retailer
- b) Demand
- c) Marketing Management
- d) Advertisement

- e) Marketing Plan
 - f) Marketing Mix
- 2x4**

PART-A

- Q.2 Define the term Targeting. Discuss, in detail, how will you target market before launching a new product/service etc.
8
- Q.3 Discuss, in detail, distribution channel with appropriate examples.
8
- Q.4 Define Selling Process. Briefly, describe different Approach Techniques through diagrammatic representation.
8

PART-B

- Q.5 Write short notes on **(any two)**:
a) FAB
b) Positioning
c) STP model
4x2
- Q.6 Define the term Segmentation. Briefly discuss levels and basis of segmentation. **8**
- Q.7 Define HRM. Discuss, in detail, scope and nature.
8

End Semester Examination, Dec. 2017

B.Sc. (Interior Design) – Third Semester
LIVING GREEN (351-309)

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 Define the following:
- a) Composting.
 - b) Acid Rain.
 - c) Ecofriendly Wallpaper.
 - d) Ecofriendly Garden.

2x4

PART-A

- Q.2 What is solar passive architecture? Explain any two methods used for passive heating.

8

- Q.3 Explain in detail LEED as a Green Building Certification Program, using one case study as an example.

8

- Q.4 How can you reduce the heating and cooling costs in a building?

8

PART-B

- Q.5 How can you make your interiors green by working on the following?

- a) Water efficiency.
- b) Environmental efficiency.

8

- Q.6 Describe some methods by which interior landscaping can be done in buildings to improve the air quality.

8

- Q.7 What is sustainable transportation? How can you make transportation sustainable? Explain by examples.

8

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 Define the following terms (**any four**):

- a) Curriculum Vitae.
- b) Retailer.
- c) Contract.
- d) Time Management.
- e) Exhibition.
- f) General partnership.

2x4

PART-A

Q.2 Discuss, in detail, Agreement and its forms with suitable examples.

8

Q.3 Communication plays an important role in Interior Design. Justify the statement with suitable examples.

8

Q.4 Discuss in detail 'Designers' Code of Ethics'.

8

PART-B

Q.5 Define Portfolio. Discuss, in detail, the requirements of an Interior design portfolio and tips to improve the presentation.

8

Q.6 Discuss in detail procedures followed in an Interior Design Project. Describe each step with suitable examples.

8

Q.7 Write short notes on (**any two**) of the following:

- a) Joint Ventures.
- b) General Contractors.
- c) Tort Law.