

End Semester Examination, May 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 Describe briefly:
- a) Color sensation.
 - b) Color contrasts.
 - c) Color symbolism.
 - d) Eco friendly components in paint. **2x4**

PART-A

- Q.2 Define the following terms:
- a) Color wheel.
 - b) Tint, Tone and Shade.
 - c) Additive and subtractive mixing.
 - d) Chiaroscuro. **2x4**
- Q.3 Discuss in detail how colors are observed in other cultures and identify some of the differences. **8**
- Q.4 Draw a color wheel. **8**

PART-B

- Q.5 Define 'paint'. Discuss various components to determine sustainability of paint products. **8**
- Q.6 Discuss color trends over the past years. **8**
- Q.7 What factors influence the way color schemes are used in planning an interior design? **8**

End Semester Examination, May2017

B. Sc. (Interior Design) – First Semester

ELEMENTS AND PRINCIPLES OF DESIGN 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**. Each questions carry equal marks.

- Q.1 What is golden proportion? Make a logo on the topic coffee lovers using golden proportions. **8**

PART-A

- Q.2 Draw a pattern on **any one** of the following themes in a circle of 10 cm diameter:
a) Tribal. **8**
b) Indian.
- Q.3 What are the elements of design? Explain with sketches. **8**
- Q.4 Draw **any one** of the following textures:
a) Wood. **8**
b) Cotton.

PART-B

- Q.5 Make compositions in a box of 20 x 20 cm on the following themes:
a) Balance and colour. **8**
b) Shape and emphasis.
- Q.6 Make a composition using different types of lines in monochromatic colour scheme in an A4 size rectangle. **8**
- Q.7 Design calligraphy for the following words, also depicting their meaning:
a) Harmony. **8**
b) Rhythm.

End Semester Examination, May 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**. Each questions carry equal marks.

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

- a) Gilding.
- b) Inlay.
- c) Carving.
- d) Fresco.
- e) Gesso.
- f) Marquetry.

2x4

PART-A

Q.2 Discuss in detail Greek furniture and key characteristics with suitable examples. **8**

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

Q.4 Complexity and ornamentation was the key feature of Roman Furniture. Discuss about other features of this era with suitable example. **8**

PART-B

Q.5 Give a brief about Rococo including key features along with sketches. **8**

Q.6 Describe Italian Renaissance in detail with suitable example. **8**

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

End Semester Examination, May 2017

B. Sc. (Interior Design) - First Semester

COMMUNICATION-I (351.107)

Time: 3 hrs

Max Marks: **40**

No. of pages: *1*

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

Q.1 What is Effective Presentation? Explain the techniques used for effective presentations? **8**

PART-A

Q.2 Write paragraph on:

a) Communications skills.

b) Importance of color in interior designing. **8**

Q.3 Write an email to the vendor for purchasing wooden furniture for your client who wants to redesign the furniture layout of his residence. **8**

Q.4 Write short notes on:

a) Various kind of material and finished in Interior Designing.

b) Innovative building materials. **8**

PART-B

Q.5 What are different communication styles? What are the barriers of effective listening? **8**

Q.6 Explain the different Audio visual techniques used in the presentation. Give three examples. **8**

Q.7 Write an application to the "Dean of FPA" regarding the submission of college fees explaining the reasons and the final date on which the fees would be submitted. **8**

End Semester Examination, May 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**. All questions carry equal marks.*

- Q.1 Write short notes on:
- Radiant heat flooring.
 - Wall covering.
 - Carpet.
 - Metal.

2x4

PART-A

- Q.2 Define 'paint'. Discuss types of paint and their impact on environment. **8**
- Q.3 Explain the purpose of floors. Classify floor covering materials. Mention the characteristics and uses of any one resilient and hard flooring material. **8**
- Q.4 What is the importance of wood? What is the difference between air drying and kiln drying? Explain with neat sketch. **8**

PART-B

- Q.5 Explain how to calculate unit of measurement for different item of works in interior design. Write the unit of measurements of **any four** of the following:
- Flooring.
 - Painting of walls.
 - Skirting.
 - Dinning chairs.
 - Fabric.
- 2x4**
- Q.6 Distinguish between 'ferrous' and 'non-ferrous metals'. Explain their applicability in detail. **8**
- Q.7 Define 'sustainability'. What are the three pillars of sustainability? Write various material and finishes used in a residential application that are suitable to the environment. **8**

End Semester Examination, May 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 down the key features of furniture pieces with illustrations (**any two**):
- a) Sheraton.
 - b) Chippendale.
 - c) Queen Anne.

4x2

PART-A

- Q.2 Differentiate between any two prominent styles of furniture making with suitable pictorial representation. **8**
- Q.3 Give a brief summary of Georgian period with suitable furniture sketch. **8**
- Q.4 Discuss in Rococo style furniture with suitable pictorial representation. **8**

PART-B

- Q.5 Describe recycled furniture with its uses in current scenario. **8**
- Q.6 Discuss in detail Art Nuevo. Give suitable example in terms of sketch. **8**
- Q.7 Discuss in detail Scandinavian furniture with suitable examples. **8**

End Semester Examination, May 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**

- Q.1 What is effective communication skills and why it is important in Interior Designing? Explain the different types of communication barrier. **8**

PART-A

- Q.2 Write paragraph on:
a) Difference between verbal and non verbal communication skills.
b) Greeting techniques. **8**
- Q.3 Write a proposal for a client who wants to renovate his office. 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. **8**

PART-B

- Q.5 Write an application to the Dean of your college on behalf of your class requesting him to grant permission to visit "Surajkund Mela" in second half of the college during the activity period. **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? Write a letter to a client telling him about the delay in interior designing work and requesting him some more time for the completion of the work. **8**

End Semester Examination, May 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 questions carry equal marks

- Q.1 List out the problems and ways the textile industry has addressed environmental and recycling issues. **8**

PART-A

- Q.2 Explain production methods used in manufacturing textiles for end use applications in detail. **8**

- Q.3 Outline the differences between natural and synthetic fibers and explain the environmental impact created when specifying specific types of fibers. **8**

- Q.4 Explain the performance of different weaves of fabric and showing different pattern through neat sketches. **8**

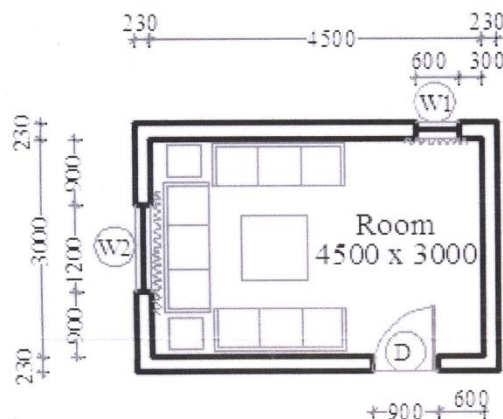
PART-B

- Q.5 Discuss the advantages and disadvantages of blending natural and manmade fibers. **8**

- Q.6 Explain by giving examples the advantages and disadvantages of specifying certain textiles in different applications. **8**

- Q.7 Calculate the following items quantity required in the room plan given below:

- Quantity of fabric sofa sets.
- Quantity of curtain fabric.
- Carpet area on floor and skirting.
- Wall paper area on all four walls.



SCHEDULE OF DOOR & WINDOWS

Description	Sill Lvl.	Lintel Lvl.
D = 900 x 2100	±00	+2100
W1 = 600 x 1350	-750	+2100
W2 = 1200 x 1350	-750	+2100

Skirting 100 mm High

End Semester Examination, May 2017

B. Sc. (Interior Design) – Second Semester

GENERAL EDUCATION (351.210)

Time: 3 hrs.

Max Marks: **40**

No. of pages: 1

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

Q.1 What are 6Ps of service marketing? Explain each in two to three lines. **8**

PART-A

Q.2 Lets say you have been asked to appear for an interview. How are you going to answer the following questions?

a) Tell me something about yourself.

b) Where do you see yourself three years from now? **8**

Q.3 How can you become a better listener in marketing? **8**

Q.4 What is marketing? Elaborate with few examples. **8**

PART-B

Q.5 What is the importance of effective communication? **8**

Q.6 How are contracts important? How do you secure your remuneration in a contract? **8**

Q.7 How do you understand and change your body language to a client? **8**

End Semester Examination, May 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 Write short notes on (**any four**):

- a) Valence.
- b) Cornice.
- c) Duvet.
- d) Pelmet.
- e) Blinds.
- f) Draperies.

2x4

PART-A

Q.2 Differentiate between the terms 'upholstery' and 're-upholstery'. Briefly discuss the advantages of re-upholstery. **8**

Q.3 Define the term 'Pleat'. Discuss the different types of pleats with suitable examples. **8**

Q.4 What do you understand by window treatments? Why is it significant in an interior space? **8**

PART-B

Q.5 What are curtains? Explain with the help of sketches also. Describe at least two different types/styles of soft curtains. **8**

Q.6 Discuss the latest trends in window treatments with suitable sketches. **8**

Q.7 Pillows are available in a wide variety in the market. Suggest some options to your client giving pros and cons of each option. **8**

End Semester Examination, May 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**. Each question carries equal marks.

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

- a) Introvert.
- b) Personality.
- c) Psychoanalysis.
- d) Learning.
- e) Memory.
- f) Personality trait.

2×4

PART-A

Q.2 Define the term: psychology and discuss in detail its various fields.

8

Q.3 Discuss psychoanalysis in detail.

8

Q.4 Discuss in detail reinforcement and its types.

8

PART-B

Q.5 Define the term: 'attachment'. Discuss briefly various parenting styles.

8

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

8

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

- a) Body Image in Media
- b) Love and Emotion
- c) Personality Trait

4×2

End Semester Examination, May 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 questions carry equal marks.

Q.1 What is ambient, accent and task lighting? Explain its advantages and disadvantages with three examples of each type. **8**

PART-A

Q.2 Make the lighting layout of a retail shop with illumination of 750 Lux. Explain the different lighting symbols used in the lighting layout. **8**

Q.3 Identify the different characteristics of natural and artificial light sources. Design a residence with the fusion of natural and artificial light. **8**

Q.4 Define the following terms with sketches:

a) Luminous flux.

b) Lux.

c) Color rendering Index. **8**

PART-B

Q.5 What are the different types of lighting? Explain the uses of different styles of light fixtures. **8**

Q.6 What is color temperature? Explain the effect of white lighting and yellow lighting in interior decoration with examples. **8**

Q.7 What is the difference between Direct and Indirect lighting? Cite the usage of direct and indirect lighting in Interior design with neat sketches. **8**

End Semester Examination, May 2017

B. Sc. (Interior Design) – Third Semester

MARKETING TECHNIQUES (351.307)

Time: 3 hrs.

Max Marks: **40**

No. of pages: **1**

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

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

- a) Distribution.
- b) Wants and needs.
- c) Marketing Management.
- d) Manufacturer.
- e) Marketing Plan.
- f) Marketing Strategy.

2x4

PART-A

Q.2 What is positioning? How can you segment an interior design market? Discuss in detail. **8**

Q.3 Define 'selling process'. Briefly describe different approach technique through diagrammatic representation. **8**

Q.4 Discuss in detail stages of new product development. **8**

PART-B

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

- a) FAB.
- b) Targeting.
- c) STP model.

4x2

Q.6 Explain the advertising strategy you will use to promote your products and services of your design firm. **8**

Q.7 Define 'HRM'. Discuss in detail scope and nature. **8**

End Semester Examination, May 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 What are Energy efficient lighting techniques and waste water management? Explain its importance in Interior Designing. **8**

PART-A

- Q.2 Explain the role of pollution in Environmental degradation. What are the measures to control it? **8**

- Q.3 Explain the different types of green building materials used for the following. Explain with neat sketches and give three examples for each.
- a) Flooring.
 - b) Furniture.
 - c) Ceiling. **8**

- Q.4 What is sustainable and effective transportation system? Explain it with reference to Delhi Metro. **8**

PART-B

- Q.5 Propose an energy efficient LEED rated residence? Explain all the categories of LEED rating system used during the design. **8**

- Q.6 Explain the following terms:
- a) Rain water harvesting.
 - b) Renewable building materials.
 - c) Indoor Air quality. **8**

- Q.7 What is Sustainability in living Green? Explain the concept of sustainability with "3R" (Recycle, Reuse, Reduce) theory. **8**

End Semester Examination, May 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) Resume.
- b) Manufacturer.
- c) Agreement.
- d) Wholesaler.
- e) Code of ethics.
- f) Project management.

2x4

PART-A

Q.2 Write a descriptive note on 'Time Management'. **8**

Q.3 Define the term professional image and discuss in detail the tips to improve the same. **8**

Q.4 Discuss in detail success pitfalls with suitable examples. **8**

PART-B

Q.5 Define 'business entitles'. Discuss its types with examples. **8**

Q.6 Define 'contract'. Discuss in detail various forms and requirements of a contract. **8**

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

- a) Exhibitions.
- b) Joint Ventures.
- c) Showrooms.

8

End Semester Examination, May 2017

B. Sc. (Interior Design) – Fifth Semester

ESTIMATING AND COSTING (351.510)

Time: 3 hrs.

Max Marks: **40**

No. of pages: **1**

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

Q.1 Write short notes on **(any four)**:

- a) Contingencies.
- b) Preliminary estimate.
- c) Difference between P.W.D and C.P.W.D. rates.
- d) Muster roll.
- e) Lump sum items.
- f) Overheads.

2x4

PART-A

Q.2 What is analysis of rates? What are the governing factors of rate of any item? **8**

Q.3 Enumerate the various method of approximate estimates and their use. **8**

Q.4 Explain the following:

- a) Centre line method and short wall-long wall method.
- b) Lump Sum tender.

8

PART-B

Q.5 Write down detailed specification of **(any one)** of the following:

- a) 1:6 cement sand plaster in brick work.
- b) Tile terracing on roof top.

8

Q.6 How you write the specification for service like electrical wiring and sanitary fixtures? **8**

Q.7 Write short notes on the following:

- a) Contract documents.
- b) Writing specifications for civil works of a small project of a house starting from excavation to finishing.

8

End Semester Examination, May 2017
B. Sc. (Interior Design)- Sixth Semester
MATERIAL FINISHES AND DESIGN TRENDS(351.610)

Time: 3 hrs

Max Marks: **40**

No. of pages: 1

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

- Q.1 Growth of communication and overseas sourcing has allowed blending the east and the west. Explain it has created diversity in Home Design : (**Any Four**):
- a) Global style in terms of furnishes and finishes.
 - b) Color trends and accessories of your houses.
 - c) Use of technology for the fabrication of different materials available for interior design.
 - d) Eco-friendly interiors.
 - e) Contemporary Furniture's.
- 2x4**

PART-A

- Q.2 Give the design concept of the following restaurant (**any two**):
- a) European Cuisine.
 - b) Asian Cuisine.
 - c) African Cuisine.
- 8**
- Q.3 Define 'fabric' and their types. **8**
- Q.4 Sketch contemporary furniture's of Jeweler showroom. **8**

PART-B

- Q.5 Color is very important aspect in an interior specification. Explain in detail. **8**
- Q.6 As an interior designer what will be your contribution to design eco-friendly interior of residence of Doctor. **8**
- Q.7 Explain different technology for the fabrication of different materials available for interior designing of theatre. **8**

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

Time: 3 hrs.

Max Marks:**40**

No. of pages:1

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

Q.1 Write short notes on the following:

- a) Billing rate.
- b) Letter of agreement.
- c) Professional conduct.
- d) Professional organizations.
- e) Tenders.

2x5

PART-A

- Q.2 What are professional ethics? How do you think they are important for an interior designer's firm? Explain. **10**
- Q.3 Enlist some promotional methods to market interior design as a profession. **10**
- Q.4 What are some of the various forms of design presentations? How are presentations important in the profession of interior design? **10**
- Q.5 What is a contract? What are the various elements of a contract? Explain. **10**

End Semester Examination, May 2017

Bachelor of Architecture – First Semester

STRUCTURAL DESIGN-I(AR-105)

Time: 3 hrs

Max Marks: **70**

No. of pages: **2**

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

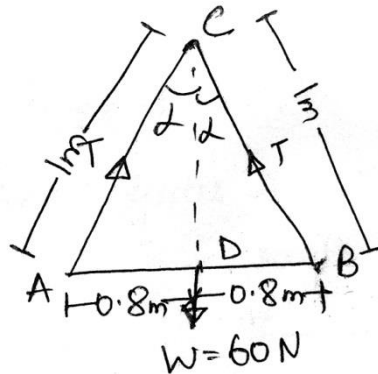
PART-A

- Q.1
- State Lami's theorem.
 - State polygon law of forces.
 - What are the different types of loading?
 - Define 'moment of inertia'.
 - What is radius of gyration?
 - What is perfect frame?
 - What are the assumptions used in analysis of truss?

2x7

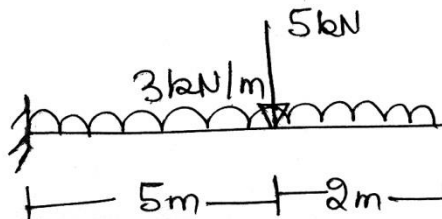
PART-B

- Q.2 A string 2m long is tied to the ends of a uniform rod that weights 60 N and its 1.6m long. The string passes over a nail, so that the rod hangs horizontally make the calculation for tension in string.



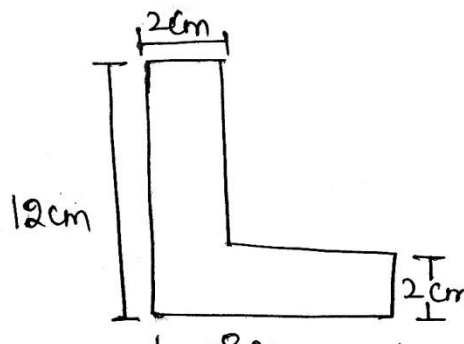
14

- Q.3 Find out the reaction at each support.



14

- Q.4 Find moment on inertia about X-X of following figure.

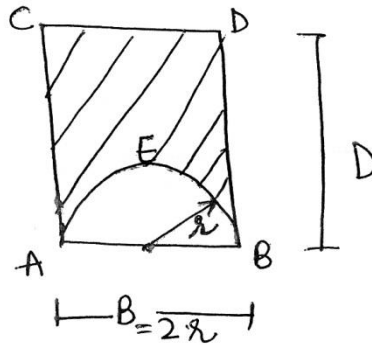


14

Q.5 a) State theorem of parallel axis.

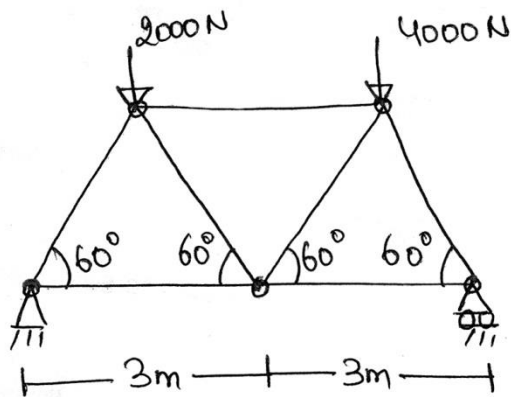
4

b) Calculate centeroid of hatched area.



10

Q.6 Find axial forces in all members of a truss.



14

End Semester Examination, May 2017

Bachelor of Architecture – First Semester

COMMUNICATION SKILLS(AR-109)

Time: 3 hrs

Max Marks:70

No. of pages:1

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

PART-A

Q.1 **Re-write the following sentences correctly after tracing the error, if any:**

- a) Hard work, as well as honesty, are necessary for success.
- b) Two thirds of the apple have rotten.
- c) He is smarter than me.
- d) Here come John and his brother.
- e) I have headache.
- f) After studying for six hours' drowsiness was felt by me

1x6

Fill in the blanks with the appropriate word in the brackets:

- g) The office is _____ than the store. (farther, further)
- h) _____ expedition to the North Pole will start on New Year's seven. (An, The)
- i) She has been cut _____ by your unkind comment. (up, off)
- j) He as well as you _____ annoyed with him. (are, is)

1x4

PART-B

Q.2 Read the paragraph and answer the questions given at the end of the paragraph.

Oil, the major source of the energy in the world today, has had a dramatic effect on the world's economy. Until quite recently, the demand for oil seemed unlimited. This chromos demand motivated several multinational companies to invest vast sums of money in location and exploiting any large oil deposits that could be found. Some of these multinationals became extremely wealthy, although the countries in which they found oil did not always have much of a share in this new found wealth. However, oil-rich countries came to realize that if they acted together, their oil deposits could be a source of great power and wealth. Indeed in 1973, the organization of petroleum,exporting countries which together produced 56 percent of the world's petroleum at that time, decided to act together to force an increase in the price of oil.

- a) Which source of energy today has a great effect on the economy of the world?
- b) What made the multinational companies to invest vast sums of money in locating the large oil deposits?
- c) What was decided by the organization of petroleum exporting countries in 1973?
- d) Identify the topic sentence.
- e) Give a suitable title.

4x5

Q.3 Write short notes on the following:

- a) Importance for communication skill for architects.
- b) Modern youth influenced by Politics.
- c) My aim in Life.
- d) Why is Crime increasing in our society?

4x5

Q.4 Write an essay on **any one** of the following:

- a) Women Empowerment.

b) National Integration.

20

Q.5 You want to renovate your office. Write a letter of enquiry to Elegant Interior Decorators, seeking information about the availability of furniture, cost of renovation work schedule etc.

20

End Semester Examination, May 2017
Bachelor of Architecture – Second Semester
STRUCTURAL DESIGN-II (AR-205)

Time: 3 hrs

Max Marks: **70**

No. of pages: 2

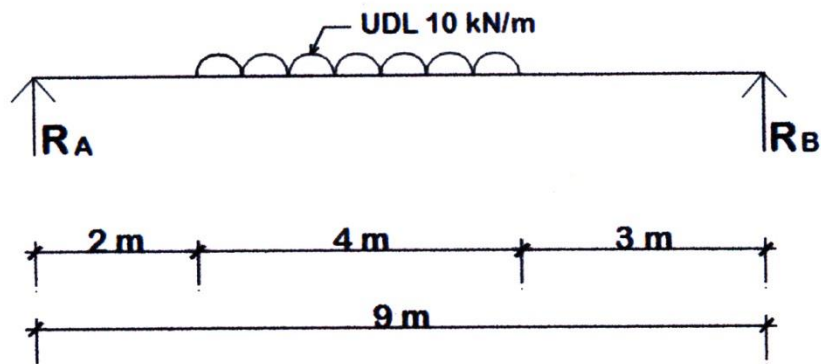
Note: Attempt **FIVE** questions in all; **Q.1 is compulsory**. Attempt any **TWO** questions from **Part-A** and **TWO** questions from **Part-B**. Each question carries equal marks.

- Q.1 Explain the following:
- Point of contraflexure.
 - Bending Moment and Shear Force.
 - Radius of Gyration.
 - Fixed and Continuous Beams.
 - Types of Stresses.
 - Poisson's Ratio.
 - Factor of Safety.

2x7

PART-A

- Q.2 Draw the shear force and bending moment diagram for the beam shown in the figure given below. Also obtain the maximum bending moment.



14

- Q.3 a) What are the advantages of Fixed Beams? **4**
b) A fixed beam AB of 5m span carries a point load of 30kN at a distance of 3m from A. Determine the value of fixing moments and the deflection under the load, if flexural rigidity of the beam is 10×10^3 kN-mm².

10

- Q.4 a) Describe the various mechanical properties of material like elasticity, plasticity, malleability, hardness, strength, toughness and ductility with illustrations of the materials. **7**
b) Draw and explain stress strain curve for mild steel. **7**

PART-B

- Q.5 a) Define 'stress and elasticity'. **4**

- b) A vertical steel bar of uniform section carries at the lower end a load $p = 315 \text{ kN}$. Length of bar is 240 m. The working stress in bar is $f = 70 \text{ N/mm}^2$ and the density of steel = 7830 kg/m^3 . Determine the cross section area of bar.

10

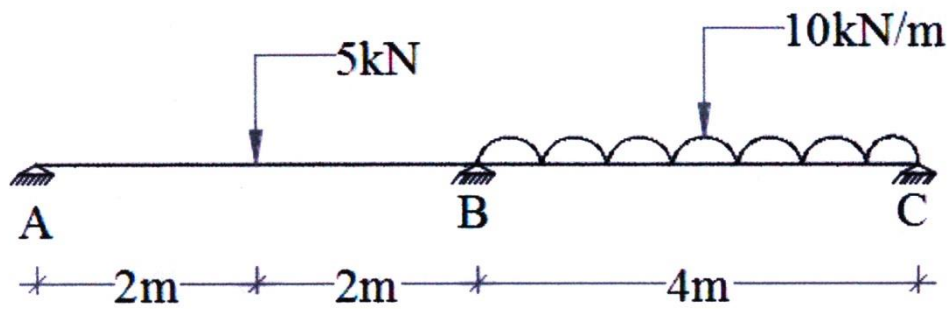
- Q.6 a) A circular rod of diameter 25mm and 600mm long is subjected to a tensile force of 60kN. The modulus of elasticity for steel may be taken as 200 kN/mm^2 . Find stress, strain and elongation of the bar due to applied load.

10

- b) What are the assumptions in strength of materials?

4

- Q.7 A continuous beam ABC, 8m long rests on three supports A, B and C at the same level. Determine the moment over the beam and draw bending moment diagram using three moment diagram.



14

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

Time: 3 hrs

Max Marks:**70**

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 the concept of society? Explain various types in which societies are classified.
14

PART-A

Q.2 What is the relationship between psychology and spatial behaviour?
14

Q.3 How does Culture Act as adaptive screen between environment and man?
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 How are Dwellings based on stages of life-cycle and socio-economic status? Explain.
14

Q.7 Explain verbal and non-verbal types of social interactions.
14

End Semester Examination, May 2017

Bachelor of Architecture – Second Semester

CLIMATOLOGY(AR-209)

Time: 3 hrs

Max Marks:**70**

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) The Cosine law.
- b) Relative Humidity.
- c) Specific heat and Latent heat of a substance.
- d) Shading devices for buildings.
- e) Evaporative cooling.
- f) Equinox Days.

5x6

PART-A

Q.2 Explain briefly Passive Environment Control Mechanisms in Traditional and Modern Built Environment.

10

Q.3 Explain the elements of Site Climate. List the instruments to measure climatic elements.

10

Q.4 What is the importance of Ventilation in Building Design? Explain Diagrammatically Air Flow in and around buildings.

10

PART-B

Q.5 Explain with the help of diagram "the passage of radiation through the atmosphere".

10

Q.6 What do you understand by Solar Orientation? Explain different types of shading devices/techniques and how they help in cutting sun?

10

Q.7 Explain the process of heat flow in conduction, convection and radiation. Also, give respective equations for the process.

10

End Semester Examination, May 2017
Bachelor of Architecture – Third Semester
HISTORY OF ARCHITECTURE-I(AR-304)

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) Abu Simbel.
- b) Pyramid of Cheops.
- c) Doric order.
- d) Ioni order.

3x4

PART-A

Q.2 Describe the Indus valley architecture and settlement with particular reference to Mohenjdar0 and Harappa.

12

Q.3 What was Lothal in the Indus valley and what did it signify?

12

Q.4 Explain in detail the Pyramid of Tutenkhamen.

12

PART-B

Q.5 Explain in detail the Athenian Acropolis.

12

Q.6 Explain Roman town planning with reference to Forum and its significance.

12

Q.7 Explain Greek town planning with reference to any ancient Greek city.

12

End Semester Examination, May 2017
Bachelor of Architecture – Third Semester
STRUCTURAL DESIGN-III (AR-305)

Time: 3 hrs

Max Marks: **60**

No. of pages: *1*

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

PART-A

Q.1 Explain the following:

- a) What do you understand by column and strut?
- b) Factor of safety.
- c) Short Column and Long Column.
- d) Mohr's Theorem.
- e) Radius of curvature.
- f) Moment of resistance.

2×6

PART-B

Q.2 A bar 30mm in diameter was subjected to a tensile load of 54kN and measured extension on 300mm gauge length was 0.12mm and change in diameter was 0.00366mm. Calculate the ratio and the Poisson's value of three elastic moduli.

12

Q.3 A beam is made up of a channel section 100mm x 50mm which has a uniform thickness of 15mm. Draw the distribution of shear stress across a vertical section if the shearing force is 100kN. Also find the ratio between the maximum shear stress and average shear stress.

12

Q.4 A 1.2m long column has a circular cross section of 45mm diameter one of the ends of the column is fixed in direction and position and other end is free. Taking factor of safety as 3, calculate the safe load.

Rankine formula, take yield stress = 560N/mm² and $a = 1/1600$.

Euler's formula, E for cast iron = 1.2×10^5 N/mm².

12

Q.5 A cantilever beam of length 3m carries a uniformly distributed load over the entire length. If the slope at the free end is 0.01777, find the deflection at the free end.

12

Q.6 A timber beam of rectangular section is to support a load of 20kN uniformly distributed over a span of 3.6 when the beam is simply supported. If the depth of section is to be twice the breadth and the stress in the timber is not to exceed 7N/mm², find the depth and breadth of the cross section. How will you modify the cross section of the beam, if it carries concentrated load of 30kN placed at the mid span with the same ratio of breadth to depth?

12

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

Time: 3 hrs.

Max Marks: **40**

No. of pages: 2

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

Q.1 Write short notes on **(any four)**:

- a) What is Plane Surveying?
- b) Define Latitude and Departure in traverse surveying.
- c) Define the term Magnetic Declination.
- d) What is contour interval?
- e) What is theodolite surveying?

2x4

PART-A

- Q.2 a) Specify the common system of notation of bearings. What is difference between W.C.B and Q.B system? **3**
- b) The following bearings were observed with a compass. Calculate the interior angles.

Line	Bearing
AB	60° 30'
BC	122° 0'
CD	46° 0'
DE	205° 30'
EA	300° 0'

5

- Q.3 a) A survey line ABC cuts the Banks of a river at B and C, and to determine the distance BC, a line BE, 60m long was set out roughly parallel to the river. A point D was then found in CE produced and middle point F of DB determined. EF was then produced to G, making FG equal to EF, and DG produced to cut the survey line in H. GH and HB were found to be 40 and 80 meters long respectively. Find the distance from B to C. **4**

- b) Briefly explain the principle of surveying. **4**

- Q.4 a) List sources of error in theodolite work. **4**

- b) How do we calculate closing error in closed Traverse? **4**

PART-B

- Q.5 a) What are the various characteristics of contour? **4**

- b) Explain the indirect method of locating contour. **4**

- Q.6 The following staff readings were observed successively with a level, the instrument having been moved after third, sixth and eighth reading:

2.228; 1.606; 0.988; 2.090; 2.864; 1.262; 0.602; 1.982; 1.044; 2.684 meters.

Calculate the R.L of points if the first reading was taken with a staff held on a bench of 432.384 m. **8**

- Q.7 a) Discuss the platform of Remote Sensing in surveying.
b) Brief the various uses of GPS in surveying.

4
4

End Semester Examination, May2017

Bachelor of Architecture –ThirdSemester

THEORY OF ARCHITECTURE-I (AR-307)

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 indicated against each question.

Q.1 What is impact of the industrial revolution on nineteenth century architecture? Explanation must be based on material, technology, functionality at that time.Explain emergence of architects and their philosophies in Modern Period. **20**

PART-A

Q.2 Explain when less was no longer more and how “less is more” different from “less is bore”? **10**

Q.3 Le Corbusier is famous for stating, “The house is a machine for living.” Explain with example. **10**

Q.4 How form follows function is different from function follows form? **10**

PART-B

Q.5 Compare different theories and expression of architects (**any two**):

- a) Organic architecture
- b) Bauhaus.
- c) Deconstruction movement.
- d) Structuralism.

5×2

Q.6 Explain in brief origin, evolution and growth of different architecture movements after Industrial revolution. How philosophy of Art Noveou movement is different from high tech. architecture? **10**

Q.7 Explain the philosophy of three postmodern architects. **10**

End Semester Examination, May 2017

Bachelor of Architecture – Third Semester

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

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 down the purpose and diameter of the following pipes (**any four**):

- a) Soil pipe.
- b) Waste pipe (horizontal)
- c) Vent pipe.
- d) Rain water pipe.
- e) Water supply pipe.

3x4

PART-A

Q.2 Explain the process of surface water treatment.

12

Q.3 Explain the one pipe system and the hybrid systems used for drainage with proper sketches.

12

Q.4 Draft a plan of a typical toilet for a residential building and mark its water supply and drainage pipes.

12

PART-B

Q.5 What are traps? Explain the types of traps classified on the basis of uses in the drainage system.

12

Q.6 Draw the typical house water connection with proper labeling and sketches.

12

Q.7 What is a septic tank? Make its schematic section in detail. Explain its working.

12

End Semester Examination, May 2017
Bachelor of Architecture – Fourth Semester
HISTORY OF ARCHITECTURE-II (AR-404)

Time: 3 hrs

Max Marks: **60**
No. of pages:

1

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

- Q.1 Write short notes on:
- a) William Morris.
 - b) Antonio Gaudi.
 - c) Walter Gropius.
 - d) Mies van der Rohe.

3x4

PART-A

- Q.2 Discuss the immediate effect of industrial revolution on the architecture of that period. **12**
- Q.3 Explain the advent of early christian architecture and an early christian church. **12**
- Q.4 Describe the role of constantinople as the centre after the fall of Rome and Byzantine architecture of that period.
12

PART-B

- Q.5 What was Romanesque architecture and what were its hallmarks, quote with examples? **12**
- Q.6 Write about Romanesque Imperial Churches of Germany (Rhineland).
12
- Q.7 Describe the works of Walter Gropius and his role as a founding father of modern architecture.
12

End Semester Examination, May 2017
Bachelor of Architecture – Fourth Semester
STRUCTURE DESIGN-IV (AR-405)

Time: 3 hrs

Max Marks: **60**

No. of pages: 2

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

PART-A

Q.1 Write short notes on:

- a) Design mix concrete.
- b) Slump test.
- c) Water cement ratio.
- d) Workability of concrete.
- e) Bond length.
- f) Properties of reinforced concrete.

2×6

PART-B

Q.2 An R.C.C. slab 120 mm thick is reinforced with 10 mm diameter bars at 15cm c/c, the cover to the centre of steel bars being 20mm. Determine the moment of resistance per meter width of the slab. Following data is given:

$$\sigma_{cbc} = 5 \text{ N/mm}^2$$

$$\sigma_{st} = 140 \text{ N/mm}^2$$

$$m = 19$$

12

Q.3 Find the moment of resistance of a beam 250 mm x 500 mm in section if it is reinforced with 2 bars of 16mm dia. At top and 4 bars of 22 mm dia. At the bottom each at an effective cover of 38mm. Safe stress in the materials are:

$$\sigma_{cbc} = 5 \text{ N/mm}^2$$

$$\sigma_{st} = 140 \text{ N/mm}^2$$

$$m = 19$$

12

Q.4 A T-beam has an effective width of flange as 1750 mm. The thickness of the flange is 150 mm and beam is reinforced with 35 sq. cm of tensile steel placed at a depth of 500 mm below the top of flange. If the width of web is 300 mm, find the position of neutral axis of the beam. Take $m = 15$.

12

Q.5 Design a cantilever slab to carry a superimposed load of 4000 N/mm². The overhang of the slab is 1.5m. Adopt M15 grade of concrete and mild steel reinforcement.

$$\sigma_{cbc} = 5 \text{ N/mm}^2$$

$$\sigma_{st} = 140 \text{ N/mm}^2$$

$$m = 19$$

$$k = 0.404$$

$$j = 0.865$$

$$R = 0.874$$

12

- Q.6 Design a short R.C.C. Column of not more than 690 mm in diameter to carry an axial load of 5080 kN. Use spiral reinforcement. Use M 25 grade of concrete and mild steel reinforcement. The characteristics strength of steel reinforcement may be taken = 250 N/mm²

12

- Q.7 A straight stair in a building is supported on a 200 mm thick brick wall on one side and by a 200 mm wide stringer beam on the other side. The effective horizontal span of the stair may be taken as 1.5 m. The risers are 160 mm and the treads are 260 mm. The steps and waist slab are cast monolithically in M 15 grade of concrete. Design the stair adopting the load of 3000 N/mm². Use mild steel reinforcement.

12

End Semester Examination, May 2017
Bachelor of Architecture – Fourth Semester
BUILDING SERVICES-II (ELECTRICAL INSTALLATION) (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 **THREE** questions from **Part B**.

PART-A

Q.1 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.2 What is the difference between Ambient, Accent and Task lighting? Design a small residence showing the lighting layout with proper symbols and fixtures.

12

Q.3 Define and explain the following:

- a) LCB.
- b) Earthlings.
- c) Fuses.
- d) MCB.

12

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) Maintenance Factor.
- c) Utilization factor lighting.

12

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 twin lamp 32 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 Explain three types of lamps used for Interior as well as Exterior lighting. Make the comparison chart of the lamp types explaining their advantage and disadvantages.

12

End Semester Examination, May 2017

Bachelor of Architecture – Fourth Semester

THEORY OF DESIGN-II(AR-407)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

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

Q.1 Explain the relevance of different architecture movements starting from 18th to 21st century as a social trend. Also compare the theories and expressions of different architecture movements.

20

PART-A

Q.2 Sketch the architecture of Contemporary Architects-Daniel Libeskind and Ranzo Piano explaining theories and expressions.

10

Q.3 Trace the reasons for evolution of High tech and Minimalist architecture movements and architects involved.

10

Q.4 Explain different theories and expressions of Diagrid and Symbolist architecture movements.

10

PART-B

Q.5 How structural dynamism is different from visual dynamism?

10

Q.6 Trace theories and expressions of two post-modernist architects.

10

Q.7 Compare two different theories and expressions of Critical regionalism and Blobitecture in Architecture.

10

End Semester Examination, May 2017
Bachelor of Architecture –FourthSemester
VERNACULAR ARCHITECTURE (AR-408)

Time: 3 hrs.

Max Marks:**60**

No. of pages:1

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

Q.1 Explain the vernacular architecture of Punjab explaining their distinct features/elements. Explain with suitable sketches. **12**

PART-A

Q.2 Define the following:

- a) Kacha
- b) Pakka
- c) Semi-Pakka.

4×3

Q.3 How does culture of a place affect vernacular architecture? **12**

Q.4 Explain some strategies for developing vernacular earthquake resistant structures. **12**

PART-B

Q.5 Define the following vernacular structures:

- a) Laterite structure-Goa.
- b) Toda Hutt.
- c) Warli House.

4×3

Q.6 Enlist five vernacular materials and state the role of technology in vernacular architecture. **12**

Q.7 Explain the vernacular building typology from any one specific region of India. **12**

End Semester Examination, May 2017
Bachelor of Architecture – Fifth Semester
HISTORY OF ARCHITECTURE-III (AR-504)

Time: 3 hrs

Max Marks: **60**
No. of pages:

1

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

- Q.1 Write short notes on the following:
- Nirandhara, Sandhara.
 - Antarala, Sukanasa, Kaksasana.
 - Vimana, Gopuram.
 - Garbhagriha.

3x4

PART-A

- Q.2 Describe the temples of Pattadakal and their architecture.
12
- Q.3 Describe the temples of Badami.
12
- Q.4 Describe the Virupaksa temple at Pattadakal?
12

PART-B

- Q.5 Describe the effect of Buddhist rock-cut architecture on early Chalukyan Architecture.
12
- Q.6 Describe the architecture of the Kandariya Mahadev Temple.
12
- Q.7 Describe the architecture of Angkor vat in Cambodia.
12

End Semester Examination, May 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**.

PART-A

- Q.1 Define the following:
- Retaining wall.
 - Stiffness.
 - Welding.
 - Bolting.
 - Roveting.
 - Browsing truss with a neat sketch.
 - Lap joint.
 - Drainage in retaining wall.
 - Tall shear wall.
 - Throat of fillet weld.

2x10

PART-B

- Q.2 Describe different types of retaining walls with neat sketch.

10

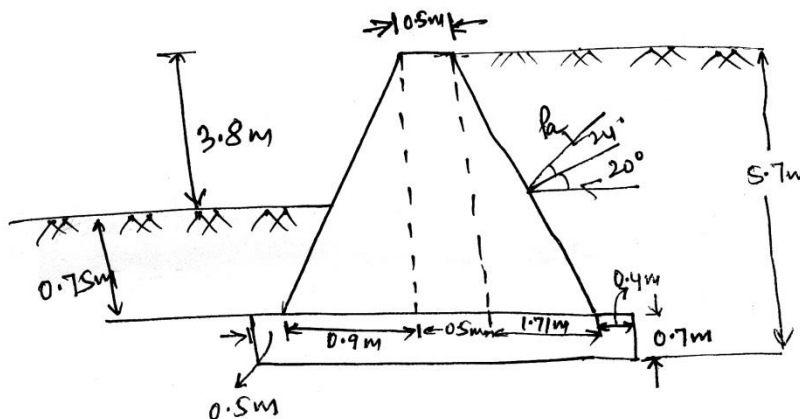
- Q.3 Define 'shear walls'. How are these classified?

10

- Q.4 A 18mm thick plate is joined by double cover built joint using a 10mm thick cover plate. The permissible tensile strength (T_{al}) is 200 MPa. Determine the strength and efficiency of the joint per pitch of 9cm if 20mm diameter power driven filed rivets are used.

10

- Q.5 Check the stability of gravity retaining wall shown in the figure:



$$r = 20kN / m^3$$

$$\phi^l = 36^\circ$$

$$\delta = 24^\circ$$

$$Ka = 0.417$$

$$Ph = 92.6kN$$

$$Pv = 89.4kN$$

$$Pa = 128.7kN$$

10

- Q.6 Calculate the maximum tension that the flat connected to gusset plate can carry if diameter of rivets is 20mm and the permissible tensile stress in the flat is 200 MPa.

10

- Q.7 Design a suitable fitted weld to connect a tie bar 75mm x 10mm to a 12m thick gusset plate. The permissible stresses in the toe bar and fillet weld are 200 MPa and 108 MPa respectively.

10

End Semester Examination, May 2017
Bachelor of Architecture – Fifth Semester
BUILDING ECONOMICS AND 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**. Each question carries equal marks.

- Q.1 A feasibility study is to be carried out on newly built office block with a usable floor area of 10,000m² at a gross rent of Rs. 1400m². An allowance for circulation is 20% of the gross floor area (GFA). Estimate the target building cost given the yield is 6% and the annual running cost is 10% of the annual rent.

12

PART-A

- Q.2 Describe cost analysis in a building.

12

- Q.3 Describe procedure for cost control of building.

12

- Q.4 Describe design factors that economize a buildings life cycle cost.

12

PART-B

- Q.5 What are the designs factors governing economics of buildings?

12

- Q.6 What do you understand by Building Economics and how it is useful of Architects?

12

- Q.7 Explain the various procedures of cost reduction without compromising on quality.

12

End Semester Examination, May 2017

Bachelor of Architecture – Fifth Semester

BUILDING SERVICES-III(ILLUMINATION AND ACOUSTICS) (AR-507)

Time: 3 hrs

Max Marks: **60**

No. of pages: 1

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

PART-A

Q.1 What is energy efficient lighting scheme? Explain the luminaries which can be utilized for energy efficient lighting and its characteristic.

12

Q.2 What is day lighting? Explain the various active and passive ways for day lighting in a commercial building.

12

Q.3 What is acoustic and how it is important in architecture designing? Explain the various acoustical defects and the ways to resolve it.

12

PART-B

Q.4 A commercial complex has area: 10 meter; width: 15 meter; height: 3.6 meter with a false ceiling of 600mm (2')

a) The ceiling to desk height (Illuminated surface) is three meters.

b) The area is to be illuminated to a general level of 750 lux using lamp 40 watt, luminaries with a SHR of 1.25.

c) Each lamp has an initial output (Efficiency) of 120 lumen per watt.

d) 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.

12

Q.5 Explain the following:

a) Color rendering index (CRI).

b) Color temperature.

c) Window wall ratio.

12

Q.6 What is the difference between Ambient, Accent and Task lighting? Design a residence showing the lighting layout with proper symbols and fixtures.

12

Q.7 What are the characteristic of Indoor and Outdoor lighting? Give three examples of each type with their advantages and disadvantages.

12

End Semester Examination, May 2017

Bachelor of Architecture – Fifth Semester

LANDSCAPE ARCHITECTURE (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**. Each question carries equal marks.

- Q.1 Explain the following:
- Plants Selection in Landscaping.
 - Pavements.
 - Importance of landscape design.
 - Formal and informal garden.

5x4

PART-A

- Q.2 How landform, plant material, building design, walls, pavements and transition spaces relate building to the site.

10

- Q.3 Explain the following: **(Any One)**:
- Functional uses of landforms.
 - Trace an essay on Landscaping supports Site Acoustics.

10

- Q.4 Explain the following: **(Any One)**:
- Principles and elements of Landscaping.
 - Role of services in Landscaping.

10

PART-B

- Q.5 Explain historical perspective of Landscape garden from earlier period to Contemporary Period. Explain design principles, element of landscape and comparison between Persian and Mughal Garden.

10

Q.6 **10**

Q.7 **10**

End Semester Examination, May 2017
Bachelor of Architecture –SixthSemester
ESTIMATING, COSTING AND SPECIFICATIONS (AR-603)

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**. Marks indicated against each question.

- Q.1 Calculate the quantities of the following item of works of a room and toilet, (drawing overleaf):
- a) Steel in RCC roof slab.
 - b) Brick work in superstructure.
 - c) Brick work in footing.
 - d) Lean concrete in foundation.
 - e) Plastering in internal walls. **4×5**

PART-A

- Q.2 a) Discuss the importance and scope of measurements in detailed estimate. **5**
b) Write the units of measurements of the following items:
- i) Sand filling under floors
 - ii) R.C.C
 - iii) Partition walls
 - iv) Woodwork in door frames
 - v) Steel in RCC beams
 - vi) Plaster
 - vii) Excavation
 - viii) Glass work
 - ix) Flooring and skirting
 - x) Cornices **5**

- Q.3 Name different types of estimates.Discuss detailed estimate in detail. **10**

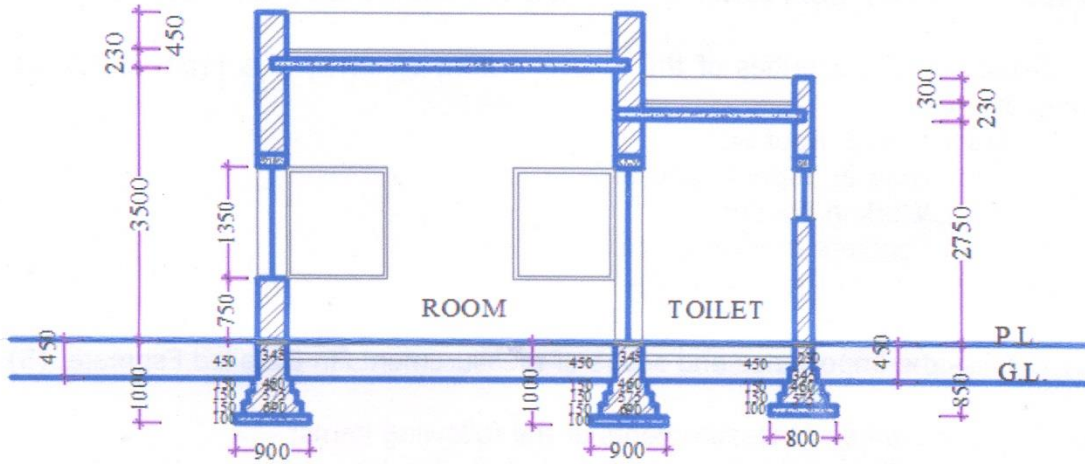
- Q.4 Write short notes on **(any five)**:
- a) Actual cost.
 - b) Chart of measurements of quantities.
 - c) Need for estimating and costing.
 - e) Administrative sanction / approval.
 - f) Abstract of estimate form.
 - g) Methods of working out quantities. **2×5**

PART-B

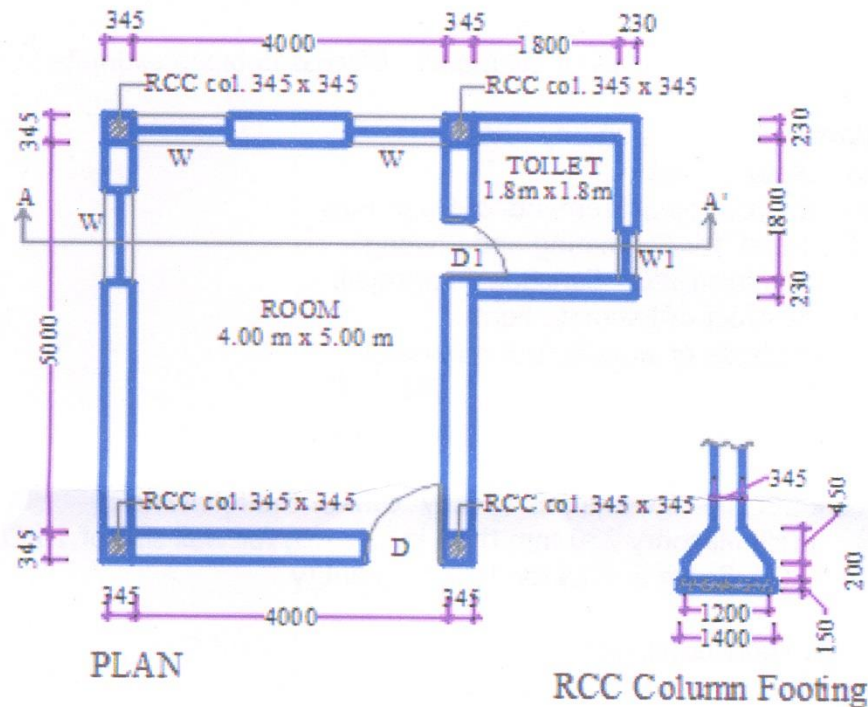
- Q.5 a) What do you understand by 'rate analysis'? **5**
b) Work out the rate analysis for any one of the following:
- i) Brick Masonry 230 mm thick in CM(1:6) for wall size of 10 Cum.
 - ii) RCC Beam in M15.for 10Cum quantity. **5**

- Q.6 Write short notes on:
- a) Muster roll.
 - b) Schedule andnon-schedule item.
 - c) Contingencies expenditure.
 - d) Specifications.
 - e) D.S.R. **2×5**

- Q.7 a) Define specifications and importance of specifications in construction works. 5
 b) Write typical specifications for **any one** of the following: 5
 i) Brick Masonry Work in CM (1:6).
 ii) 20 mm cement sand faced plaster.



SECTION AT A - A'



SCHEDULE OF DOOR & WINDOWS

Description	Sill Lvl.	Lintel Lvl.
D = 1000 x 2100	±00	+2100
D1 = 750 x 2100	±00	+2100
W = 1200 x 1350	+750	+2100
W1 = 600 x 600	+1500	+2100

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

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 Trace essay on Architectural developments from 1800 A.D to 2000 A.D. in India,explaining in detail with sketches:
- Development of colonial Architecture in India.
 - Influence of modernism in Indian architecture explaining the works of B.V. Doshi, Kanvinde, Charles Correa, Raj Rewal, J.A. Stein etc.
 - New concept of town planning after Independence.

20

PART-A

- Q.2 What is Indo Sarcenic Architecture? What are its design features? Explain with sketches.

10

- Q.3 The Government Complex in New Delhi was a symbol of colonial architecture in India? Explain.

10

- Q.4 Explain the three phase development of the town planning concept of Lutyen's Delhi.**10**

- Q.5 Explain the town planning concept of Shahjahanbad.

10

PART-B

- Q.6 Explain with sketches the development of colonial architecture in India (**Any Two**):

- British colonial era: 1615 to 1947
- Portuguese: 1498 to 1961
- French: 1673 to 1954
- Dutch 1605 to 1825

10x2

End Semester Examination, May 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**.

PART-A

Q.1 Explain the following:

- a) Sheeting.
- b) Sag rods.
- c) Frame.
- d) Types of loads.
- e) Soft storey.
- f) Column caps.
- g) Web failure.
- h) Bundled tube
- i) Weak column strong girdor frame.
- j) Need for redundancy.

2x10

PART-B

Q.2 Design a two tier grillage foundation for a column carrying 2000 kN load. The size of base plate is 800mm x 800mm. Safe bearing capacity of the soil 200 kN/m². Draw neat sketch.

20

Q.3 a) List down different types of roof trusses.

5

b) Explain any three truss system in detail.

15

Q.4 a) Explain and list down different types of building frames with neat sketches.

10

b) Explain and list down different types of loads applied on structures with IS codes.

10

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

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) The role of building bye-laws in the built Environment of city National Building Code.
 - b) Ground Coverage and Total Built up Area.
 - c) Floor Area Ratio (FAR) / Floor Space Index (FSI)
 - d) Zonal Plans.
 - e) Courtyard.
 - f) Basement.
 - g) Arbitration Act.
 - h) Development Authority objective and functions.
 - i) Compoundable and non-compoundable Deviations in buildings.
 - j) Heritage Regulations for old monuments.

2x10

PART-A

- Q.2 What is Land Use? Discuss various types of Land Use in Master Plan.
10
- Q.3 Give reasons for- "the owner of a property is prohibited from putting any structure in the setback portion."
10
- Q.4 Discuss the roles of various statutory bodies Development Authority, Municipal Development Authority.
10

PART-B

- Q.5 Discuss and give reason for: "The building byelaws should be periodically modified".
10
- Q.6 What do you understand by Architectural Controls. Explain its need and importance in creating quality built environment with suitable examples and importance of role, laws related to this.
10
- Q.7 Enumerate in detail the basic requirements of Documents/Drawings/N.O.C. etc. that are necessary for submission of a building development proposal to the sanctioning Authority considering an example of any city.
10

End Semester Examination, May 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 What are the differences between green and intelligent buildings?
12

PART-A

Q.2 Explain any two Passive Cooling and any two Passive Heating Techniques for an energy efficient building.
12

Q.3 What are the broad objectives of ECBC? Which sector of buildings do they cover and what lies in their exemptions?
12

Q.4 What is a Building Envelope? Write down High Performance Envelope Design Strategies?
12

PART-B

Q.5 Explain the criteria's on which GRIHA rating systems work for a Building to be evaluated?
12

Q.6 What are the key issues to be taken care of while designing an intelligent building?
12

Q.7 Explain any one building's case study either for a green building or for an intelligent building.
12

End Semester Examination, May2017
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**.

PART-A

Q.1 Answer the following question:

- a) What do you understand by 'air-conditioning'?
- b) What do you mean by the word 'car' in a lift?
- c) What do you mean by 'chilled water in an air-conditioning system'?
- d) What do you mean by 'package units in air-conditioning system'?
- e) Why in an office building AHU is preferred over Fan Coil Unit (FCU)?

4x5

PART-B

Q.2 Draw a schematic diagram of a chilled water system showing chilling machines, chilled water pump, condenser water pumps, cooling tower, AHU and FCU with individual valve arrangement in a building of four-floors (Basement excluded)

20

Q.3 a) Draw a coordination diagram of chilled water piping, supply air duct, plumbing pipes, fire-fighting pipes, electrical cable tray above false ceiling. Appropriate diameters of chilled water pipes, size of supply air duct and clearance space above false ceiling needs to be indicated.

10

b) Indicate a duct layout diagram (top view) in a building indicating diffuser grills and lighting layout along with supply air duct, return air provision and AHU along with AHU room. Drawing (hand sketch) needs to be drawn.

10

Q.4 a) Write down different design factors taken in lift designing with brief description of each.

15

b) Define 'RTT (Round trip time)'.

5

End Semester Examination, May 2017

B. Sc. (Interior Design)– Second Semester ENVIRONMENTAL STUDIES(CH-202A)

Time: 3 hrs

Max Marks: **100**

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 the scope of environmental studies?
 - What is soil erosion?
 - Define 'food chain'.
 - What is ecosystem?
 - What are the differences between renewable and non-renewable resources?
 - What are a biotic factors?
 - Define 'poaching'.
 - What are primary pollutants?
 - On which date Environment Day is celebrated?
 - What are endangered species?
- 2×10**

PART-A

- Q.2
- What is the role of individual to conserve natural resources?
 - What is mining? Write its environmental effects?
 - Discuss the multidisciplinary nature of environmental studies.
 - Briefly discuss drought and floods with respect to their occurrence and impacts.
- 5×4**

- Q.3
- What is primary and secondary succession?
 - Discuss Pyramid of energy in detail.
 - Write a short note on 'forest ecosystem with its structure and functions'.
 - Write the structure and functions of grassland ecosystem.
- 5×4**

- Q.4
- Explain i) Endemic Species ii) Extinct species.
 - What are the major threats to biodiversity?
 - What do you mean by In-situ and Ex-situ conservation of biodiversity?
 - What are hot spots of biodiversity? Which hot spots are present in India?
- 5×4**

PART-B

- Q.5
- What are the causes of air pollution?
 - What are the effects of soil pollution?
 - Write short notes on:
i) Earthquake ii) Cyclones.
 - Write a short note on 'solid waste management'.
- 5×4**

- Q.6
- What are the causes and effects of acid rain?
 - What are the salient provisions in Wild Life Act?
 - Write a short note on 'rainwater harvesting'.
 - Explain ozone depletion in detail.
- 5×4**

- Q.7
- a) Discuss the role of IT in environment and human health.
 - b) Write a short note on 'disarmament'.
 - c) What are human rights? Give salient points of it.
 - d) Briefly discuss demographic transition.

5x4

End Semester Examination, May 2017

Bachelor of Architecture– First Semester

ENVIRONMENTAL STUDIES(CH-202A)

Time: 3 hrs

Max Marks: **100**

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 **Multiple choice questions:**

- a) Full form of CNG is:
i) Common National Gas
ii) Common Natural Gas
iii) Compressed Natural Gas
iv) Certified Natural Gas
- b) Which of the following is a biodegradable waste?
i) Plastics ii) Polythene iii) Glass iv) None of these
- c) Which of the following is not an air pollutant?
i) Smoke ii) Carbon Dioxide iii) Nitrogen Gas iv) Sulphur Dioxide
- d) Noise pollution is measured in:
i) Decibels ii) Amperes iii) Ohm iv) Fathoms
- e) Pyramid of energy in ecosystems is:
i) Always upright ii) Always inverted
ii) Mostly upright iv) Mostly inverted **1x5**

Briefly answer:

- f) What is the relationship between ecology and environmentalism?
g) Who are decomposers?
h) What measures can be taken in mitigation of earth quakes?
i) How wasteland reclamation is carried out?
j) What is nuclear holocaust? **3x5**

PART-A

- Q.2 a) Write a note on the importance of education on environmental issues and concerns. **10**
b) Describe the multidisciplinary nature of environmental studies. **10**

- Q.3 a) Oceans are ultimate sink for most of the waste we produce. Explain. **10**
b) Discuss various water conservation techniques that can be practiced by individuals. **10**

- Q.4 a) Define ecosystem and list components of an ecosystem. **10**
b) What is grassland ecosystem? What are the threats to grassland ecosystem? What are the effects of degradation of an ecosystem? **10**

PART-B

- Q.5 a) Explain the term: 'biodiversity'. What are the important values of biodiversity? **10**
b) Write a short note on 'hotspots of biodiversity'. **10**

- Q.6 a) What are the adverse effects of ozone layer depletion?
10
- b) Discuss salient features of the Air-pollution Prevention and Control Act.
10
- Q.7 a) What are the reasons for differences in the rate of population growth in various countries?
10
- b) Define watershed management and explain its objectives.
10