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***B.Arch. Degree V Semester Supplementary Examination  
November 2024***

**AR 1502 BUILDING MATERIALS AND CONSTRUCTION - IV  
(2014 Scheme)**

Time: 4 Hours

Maximum Marks: 100

**PART A  
(Answer ALL questions)**

(8 × 5 = 40)

- I. (a) Resisting Paints.  
(b) Paint and Enamel  
(c) Natural Flooring.  
(d) Epoxy and Polyurethane Products.  
(e) King and Queen post Truss.  
(f) GI and other roofing sheets.  
(g) Types of Elevators.  
(h) Conveyors.

(2 × 10 = 20)

- II. Explain which all ways can paint and enamel enhance the aesthetic appeal of a building. Provide examples of decorative techniques using these coatings.

OR

- III. What are the different types of finishes used for walls, floors and roofs in construction? Provide examples of materials used for each type.
- IV. How roofing tiles can influence a building's thermal performance? What role do colour and material play in heat absorption and energy efficiency?

OR

- V. What types of conveyor systems are commonly used in construction and industrial applications? Explain their functions and advantages.

**PART B**

(2 × 20 = 40)

- VI. Prepare a scaled plan of a steel tubular truss roof, showing fixing details for a 6.5 meter span and label the various components. Include detailed sketches of two major connections.
- OR
- VII. Prepare a scaled drawing of a king post truss roof with fixing details for a 5.4 meter span, clearly labelling the different parts. Provide detailed joint drawings for where the ridge piece connects to the principal rafter and king post.
- VIII. Design a passenger elevator to be installed in a commercial building with a floor-to-floor height of 3.6 meters. Draw the plan, section and details
- OR
- IX. Prepare the plan, section and detailed drawings for a 35 degree escalator in a shopping mall, connecting two floors with a height difference of 4.2 meters.

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***B.Arch. Degree V Semester Supplementary Examination  
November 2024***

**AR 1503 HISTORY OF ARCHITECTURE - IV  
(2014 Scheme)**

Time: 3 Hours

Maximum Marks: 100

*(Instructions: Illustrations in answer carry due marks)*

**PART A  
(Answer ALL questions)**

**(8 × 5 = 40)**

- I. Write short notes on the following.
- Fontainhas, Goa.
  - Catholic houses in Goa during Portuguese colonial era.
  - Indo-Saracenic architecture.
  - Lutyens' Delhi.
  - Travellers club building and its architecture.
  - Influence of steel and glass as modern building material.
  - Organic Architecture.
  - Works of Louis Sullivans.

**PART B**

**(4 × 15 = 60)**

- II. Discuss on the styles and trends of architecture brought by Portuguese to India with examples and neat sketches.
- OR**
- III. Examine the characteristics of Portuguese colonial architecture, using the Bom Jesus Cathedral in Goa as a key example.
- IV. Discuss on the styles and trends of architecture brought by British to India with examples and neat sketches.
- OR**
- V. Analyse the key features of British colonial architecture in India, with a focus on the design and planning of New Delhi as an example.
- VI. Discuss post-Renaissance architecture in Europe and explain its influence on later architectural styles, providing an example to illustrate its impact.
- OR**
- VII. Analyse the introduction of new materials in the 19<sup>th</sup> century and discuss their impact on building design and construction, with specific examples of industrial architecture.
- VIII. Compare and contrast the Art Nouveau and Arts and Crafts movements, discussing their key characteristics, design philosophies and influences on architecture and decorative arts.
- OR**
- IX. Discuss the architectural philosophies of Antonio Gaudi and Frank Lloyd Wright, emphasizing their notable works.