



**B.E DEGREE EXAMINATIONS: APRIL / MAY 2023**

(Regulation 2018)

Sixth Semester

**CIVIL ENGINEERING**

U18CEE0016: Building Information Management

**COURSE OUTCOMES**

**CO1:** Analyse the selection of various building materials, services and its structure

**CO2:** Understand the various environmental aspects involved in the building

**CO3:** Understand the integration of MEP systems in building construction

**CO4:** Identify the various components of infrastructure projects

**CO5:** Analyse the various aspects of safety and maintenance in construction

**Time: Three Hours**

**Maximum Marks: 100**

**Answer all the Questions:-  
PART A (10 x 2 = 20 Marks)  
(Answer not more than 40 words)**

- |   |                       |
|---|-----------------------|
| 1. List out the various building enclosure system.                          | CO1 [K <sub>1</sub> ] |
| 2. Define aesthetics in terms of architecture.                              | CO1 [K <sub>1</sub> ] |
| 3. Compare exfiltration with infiltration.                                  | CO2 [K <sub>2</sub> ] |
| 4. Mention any four water proofing materials used for weather resistance.   | CO2 [K <sub>1</sub> ] |
| 5. List out the principles of pipeline positioning.                         | CO3 [K <sub>1</sub> ] |
| 6. Classify the three sides of E&P based on the MEP interfacial components. | CO3 [K <sub>2</sub> ] |
| 7. List out the various patterns of runway.                                 | CO4 [K <sub>1</sub> ] |
| 8. Name the components of harbor.   | CO4 [K <sub>1</sub> ] |
| 9. Mention any four techniques of fire escape                               | CO5 [K <sub>1</sub> ] |
| 10. Identify the features of green building.                                | CO5 [K <sub>1</sub> ] |

**Answer any FIVE Questions: -  
PART B (5 x 16 = 80 Marks)  
(Answer not more than 400 words)**

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|-----|----|--|---|-----|-------------------|
| 11. | a) | Describe the necessary functional requirements of walls as a building enclosing system.  | 8 | CO1 | [K <sub>2</sub> ] |
|     | b) | Illustrate the factors involved in selection of materials for construction projects.   | 8 | CO1 | [K <sub>2</sub> ] |
| 12. | a) | Explain the various techniques adopted in construction of walls and doors for controlling the acoustics in buildings.                  | 8 | CO2 | [K <sub>2</sub> ] |
|     | b) | Illustrate the various building related factors to be considered in Indoor Environmental Quality (IEQ) evaluation.                     | 8 | CO2 | [K <sub>2</sub> ] |
| 13. | a) | Explain the Eight Criteria involved in sequencing logic of MEP system installation for interface integration in building construction. | 8 | CO3 | [K <sub>2</sub> ] |
|     | b) | Outline the role of construction management and its demands in the infrastructure development projects.                                | 8 | CO3 | [K <sub>2</sub> ] |
| 14. | a) | Explain the components of airport with neat sketches.  | 8 | CO4 | [K <sub>2</sub> ] |
|     | b) | Explain the various components of highways and its significance in detail with a neat sketch.  | 8 | CO4 | [K <sub>2</sub> ] |
| 15. | a) | Classify the various types of pollution produced due to construction activities and its causes in detail.                              | 8 | CO5 | [K <sub>2</sub> ] |
|     | b) | Explain the various types of fire preventive techniques adopted for safety in construction projects.                                   | 8 | CO5 | [K <sub>2</sub> ] |
| 16. | a) | Describe the various components of railways with neat sketches.  | 8 | CO5 | [K <sub>2</sub> ] |
|     | b) | Discuss on the prospects of infrastructure sector and its future needs.  | 8 | CO3 | [K <sub>2</sub> ] |

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