

Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
FOURTH SEMESTER B.TECH DEGREE EXAMINATION(R&S), MAY 2019

Course Code: CE204

Course Name: CONSTRUCTION TECHNOLOGY (CE)

Max. Marks: 100

Duration: 3 Hours

PART A

Answer any two full questions, each carries 15 marks

		Marks
1	a) What are the various types of reinforcing steel? Explain its properties.	9
	b) What are the properties and uses of aluminium?	6
2	a) Explain the steps involved in BIS method of concrete mix design.	9
	b) List the requirements of good building stones.	6
3	a) What is the role of water in concrete? Explain the significance of testing its quality.	9
	b) Discuss the role of aggregates in concrete.	6

PART B

Answer any two full questions, each carries 15 marks

4	a) Explain various types of shallow foundations with neat sketches.	9
	b) Compare brick and stone masonry.	6
5	a) What is pointing? Explain its various types with neat sketches.	9
	b) Enumerate the requirements of partition walls.	6
6	a) Explain various types of sloped roofs with neat sketches.	9
	b) List the requirements of an ideal paint.	6

PART C

Answer any two full questions, each carries 20 marks

7	a) Explain the various types of structural systems with neat sketches.	10
	b) What is construction joint? Explain its various types with sketches.	10
8	a) Write a short note on slip form construction. What are its advantages?	10
	b) What are the various causes of failure in RCC structures? Explain.	10
9	a) Write a note on failure of structures due to wind and fire.	10
	b) Explain the various methods of retrofitting columns with sketches.	10

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APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
FOURTH SEMESTER B.TECH DEGREE EXAMINATION(S), DECEMBER 2019

Course Code: CE204
Course Name: CONSTRUCTION TECHNOLOGY

Max. Marks: 100

Duration: 3 Hours

PART A

Answer any two full questions, each carries 15 marks

Marks

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|---|--|---|
| 1 | a) How is plywood manufactured? Discuss its classification and uses. | 9 |
| | b) What are the properties and uses of glass? | 6 |
| 2 | a) Define workability of concrete. What are the factors that affect workability? | 9 |
| | b) Discuss the advantages and disadvantages of steel as a construction material. | 6 |
| 3 | a) Explain the various tests done on hardened concrete. | 9 |
| | b) Describe briefly the various processes in the manufacturing of concrete. | 6 |

PART B

Answer any two full questions, each carries 15 marks

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|---|--|---|
| 4 | a) When are pile foundations preferred? Explain various types of piles. | 9 |
| | b) Explain the cavity wall construction with a neat sketch. State its advantages. | 6 |
| 5 | a) What are the requirements of a good roofing material? Explain the factors to be considered in the selection of a roof material. | 9 |
| | b) What are the advantages of (1) filler slab technology and (2) rat trap bond? | 6 |
| 6 | a) What are the functions of a lintel? Explain its various types with neat sketches. | 9 |
| | b) Distinguish between plastering and pointing. | 6 |

PART C

Answer any two full questions, each carries 20 marks

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|---|---|----|
| 7 | a) What are the advantages and disadvantages of RCC and steel framed structures? | 10 |
| | b) List the requirements of a good formwork. Describe various types of formwork. | 10 |
| 8 | a) What are the processes involved in prefabrication? State the advantages and disadvantages of prefabrication. | 10 |
| | b) What are the various causes of failure in steel structures? Explain. | 10 |
| 9 | a) Explain the various techniques for achieving earthquake resistance in buildings with neat sketches. | 10 |
| | b) Explain the various methods of retrofitting RCC slab with neat sketches. | 10 |

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APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

Fourth semester B.Tech examinations (S), September 2020

Course Code: CE204

Course Name: CONSTRUCTION TECHNOLOGY (CE)

Max. Marks: 100

Duration: 3 Hours

PART A

Answer any two full questions, each carries 15 marks

- | | Marks |
|---|-------|
| 1 a) Define seasoning of timber. Why this is required? Explain the methods of natural seasoning. | 6 |
| b) How steel is classified based on its carbon content? | 3 |
| c) Discuss the important types of glasses and their uses in construction industry | 6 |
| 2 a) How will you classify sand on the basis of its source? | 3 |
| b) Why is it necessary to compact freshly laid concrete? Explain the methods used for compaction. | 5 |
| c) What are admixtures? Explain its types and uses. | 7 |
| 3 a) What are the factors affecting workability of concrete? | 5 |
| b) Explain the mix proportioning of concrete by BIS method. | 10 |

PART B

Answer any two full questions, each carries 15 marks

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|---|----|
| 4 a) Explain the various types of foundations with neat sketches. | 10 |
| b) What are cavity walls? What are its advantages? | 5 |
| 5 a) What is scaffoldings? Explain its types. | 7 |
| b) What is DPC? With neat sketches explain how it is provided at different levels of a building. | 8 |
| 6 a) Enumerate the essential requirements of a good floor. | 5 |
| b) State the purpose of using arches in buildings. With neat sketches explain its classification on the basis of shape. | 7 |
| c) What is distempering? List down the desirable properties of a good distemper. | 3 |

PART C

Answer any two full questions, each carries 20 marks

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|--|----|
| 7 a) Draw a typical cross-section of a stair. Label and explain the parts. | 10 |
|--|----|

- b) Write a short note on slip form construction. 5
- c) Discuss the advantages and disadvantages of steel framed structures. 5
- 8 a) Write short notes on 10
- i) Elevators ii) Escalators iii) Ramp
- b) What are the advantages of steel formwork over wooden formworks? 5
- c) Explain the mistakes leading to cracking/collapse of structure due to poor workmanship. 5
- 9 a) Discuss the general reasons for the failure of buildings. 10
- b) Explain the major techniques used for retrofitting RCC slabs. 10
