

Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
Third Semester B.Tech (minor) Degree Examination December 2020

Course Code: CET281

Course Name: BUILDING CONSTRUCTION AND STRUCTURAL SYSTEMS

Max. Marks: 100

Duration: 3 Hours

PART A

Answer all questions. Each question carries 3 marks

		Marks
1	a) Write a short note on blended cement. Give an example	(3)
	b) Define coarse aggregate and fine aggregate	(3)
	c) Define batching. Mention its types.	(3)
	d) What is segregation of concrete?	(3)
	e) What are the factors to be considered while selecting a flooring material?	(3)
	f) What is lintel? Mention its types on the basis of material used.	(3)
	g) What is meant by Non Destructive Test? Mention any two types of NDT.	(3)
	h) What are the causes of foundation settlement ?	(3)
	i) What is a flat slab?	(3)
	j) Sketch the reinforcement details for a beam.	(3)

PART B

Answer any one full question from each module. Each question carries 14 marks

Module 1

2	(a) List out the methods of cement manufacturing. Explain any one method in detail.	(10)
	(b) State the properties of cement mortar.	(4)
3	(a) Mention the role of admixtures in concrete.	(5)
	(b) List the types of cements and explain any two types in details.	(9)

Module 2

4	(a) What is workability of concrete? Explain slump test on concrete.	(9)
	(b) Explain design mix of concrete, how is it different from a nominal mix?	(5)
5	(a) Discuss the advantages of RCC over PCC.	(4)
	(b) Discuss the factors affecting workability of concrete.	(10)

Module 3

- 6 (a) Explain plastering. What are its advantages. (6)
(b) What is seasoning of timber? Explain any three methods of seasoning. (8)
- 7 (a) Sketch the diagram of a door and label its components. (6)
(b) List out the types of paints and explain any two in detail. (8)

Module 4

- 8 (a) What are the types of foundations? (4)
(b) Mention and explain the types of shallow foundations (10)
- 9 (a) What is slip form construction? Explain its advantages. (6)
(b) Explain the concept of Green building. Suggest any three ideas towards sustainable building concept. (8)

Module 5

- 10 (a) List out the components of a structural system and explain the functions of each. (14)
- 11 (a) Compare one way slab and two way slab along with the help of sketches. (6)
(b) Differentiate between load bearing structure and framed structure. (8)
