

Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

Fourth Semester B.Tech (Hons.) Degree Examination June 2024 (2022 Admission)

**Course Code: CET294****Course Name: PAVEMENT CONSTRUCTION AND MANAGEMENT**

Max. Marks: 100

Duration: 3 Hours

PART A*(Answer all questions; each question carries 3 marks)*

		Marks
1	What are the objectives of PMS?	3
2	Compare cut back bitumen and bitumen emulsion.	3
3	Write a short note on stone matrix asphalt layer	3
4	Differentiate open graded and dense graded bituminous mixes.	3
5	Discuss on DLC layer of CC pavements.	3
6	Describe the interface treatments of flexible pavements	3
7	What are advantages of rigid pavements?	3
8	Draw a typical cross section of a highway on embankment and show the various flexible pavement layers.	3
9	What are the desirable properties of road aggregates?	3
10	Define life cycle cost analysis.	3

PART B*(Answer one full question from each module, each question carries 14 marks)***Module -1**

11	a) What are the functions of pavement?	7
	b) Differentiate between flexible pavement and rigid pavement.	7
12	a) Explain Impact test and Crushing strength test on aggregates.	10
	b) Enumerate on grading of bitumen.	4

Module -2

13	a) Explain Marshall method of mix design on bituminous mix	14
14	a) Enumerate the types of bituminous mixes	14

Module -3

- 15 a) Explain the construction steps and quality control checks during the construction of GSB layer 14
- 16 a) Discuss on the equipments used for compaction of soil. 14

Module -4

- 17 a) What are the types of Rigid pavements? 7
- b) Discuss on types of joints in CC pavement with neat sketches. 7
- 18 a) Explain the methods of construction of CC pavement. 14

Module -5

- 19 a) Identify the components of pavement management system 8
- b) Illustrate the maintenance activities of pavement 6
- 20 a) Explain the methods of functional and structural evaluation of pavements 14
