



**APJ ABDULKALAM TECHNOLOGICAL UNIVERSITY**  
**08 PALAKKAD CLUSTER**

Q. P. Code : TE0821204-I

(Pages: 2)

Name: .....

Reg. No: .....

**SECOND SEMESTER M.TECH. DEGREE EXAMINATION JULY 2021**

Branch: Civil Engineering

Specialization: Transportation Engineering

**08CE6204 PAVEMENT CONSTRUCTION EVALUATION AND MAINTENANCE**

(Common to TE)

Time: 2 hour 15 minutes

Max. Marks: 60

Answer all six questions.

Modules 1 to 6: Part 'a' of each question is compulsory and answer either part 'b' or part 'c' of each question.

Q.no.	Module 1	Marks
1.a	Differentiate between two types of soil stabilization.	3
<b>Answer b or c</b>		
b	Compare any two types of chemical stabilization.	6
c	Explain the construction procedure of cement stabilized subgrade.	6
Q.no.	Module 2	Marks
2.a	Enumerate the different types of highway construction equipments (any 8).	3
<b>Answer b or c</b>		
b	What are the preparations to be done before constructing a bituminous layer over any type of layers.	6
c	What are the IRC specifications for the bituminous concrete surface course?	6
Q.no.	Module 3	Marks
3.a	What are the distresses observed in interlock block pavement?	3

**Answer b or c**

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|----------|---|----------|
| <b>b</b> | What are the advantages and need of modified binders? | <b>6</b> |
| <b>c</b> | Compare Geocells, Geodrains and Geomembranes.         | <b>6</b> |

<b>Q.no.</b>	<b>Module 4</b>	<b>Marks</b>
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| <b>4.a</b> | What are the factors influencing skid resistance on a pavement surface? | <b>3</b> |
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**Answer b or c**

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| <b>b</b> | Explain Shahin's deduct value method.  | <b>6</b> |
| <b>c</b> | List out the various pavement distress related indices. Explain in detail any two indices. | <b>6</b> |

<b>Q.no.</b>	<b>Module 5</b>	<b>Marks</b>
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| <b>5.a</b> | What are the factors affecting structural condition of pavement. | <b>4</b> |
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**Answer b or c**

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| <b>b</b> | Write a detailed note on Bump Integrator with diagram. | <b>8</b> |
| <b>c</b> | What are the different NDT's? Briefly explain.         | <b>8</b> |

<b>Q.no.</b>	<b>Module 6</b>	<b>Marks</b>
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| <b>6.a</b> | Explain with a neat diagram the benefits of preventive maintenance on the life cycle cost of the pavement. | <b>4</b> |
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**Answer b or c**

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| <b>b</b> | Briefly explain routine maintenance.         | <b>8</b> |
| <b>c</b> | Briefly explain rehabilitation of pavements. | <b>8</b> |