



B.E/B.TECH DEGREE EXAMINATIONS: NOV/DEC 2022

(Regulation 2018)

Seventh Semester

AUTOMOBILE ENGINEERING

U18AUI7201: Vehicle Maintenance and Reconditioning

COURSE OUTCOMES

CO1: Familiarize the need and procedures of service records used for vehicle maintenance

CO2: Examine and troubleshoot engine malfunctions

CO3: Identify the conditions of battery and auxiliary electrical systems.

CO4: Describe the repair procedure for vehicle chassis and body components

CO5: Assess and rectify the wheel and tire parameters

CO6: Inspect and troubleshoot the HVAC system

Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-

PART A (10 x 2 = 20 Marks)

(Answer not more than 40 words)

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| 1. What are the six stages of diagnosis process? | CO1 | [K ₂] |
| 2. How does root cause analysis will be helpful in vehicle diagnostic? | CO1 | [K ₂] |
| 3. List out the different types of maintenance strategy. | CO2 | [K ₂] |
| 4. List down the benefits of preventive maintenance. | CO2 | [K ₂] |
| 5. What is engine overhauling? | CO3 | [K ₂] |
| 6. Explain oversteer condition. | CO3 | [K ₂] |
| 7. Discuss about maintenance free batteries. | CO4 | [K ₂] |
| 8. What are criteria that the charging system should be met? | CO5 | [K ₂] |
| 9. List down the stages of carburation. | CO6 | [K ₂] |
| 10. Discuss about the relationship between State of charge and Electrolyte Specific gravity. | CO6 | [K ₂] |

Answer any FIVE Questions:-

PART B (5 x 16 = 80 Marks)

(Answer not more than 400 words)

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|--|---|-----|-------------------|
| 11. a) Briefly discuss about Tools and instruments used in maintenance shop. | 8 | CO1 | [K ₂] |
| b) Draw a neat sketch of Vehicle service station layout and explain. | 8 | CO2 | [K ₂] |
| 12. Discuss about the various cleaning methods used for Engine Block | | CO2 | [K ₂] |

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|-----|--|-----|-------------------|
| 13. | Explain about the maintenance of charging system. | CO3 | [K ₂] |
| 14. | How to troubleshooting of Engine cooling system and explain the procedure. | CO4 | [K ₂] |
| 15. | Illustrate about the relationship between Engine tuning and optimum fuel supply. | CO5 | [K ₂] |
| 16. | List out the maintenance procedure followed in automotive clutch. | CO5 | [K ₂] |
