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Question Paper Code: 94705

B.E./B.Tech. DEGREE EXAMINATION, DEC 2021

Fourth Semester

Mechanic Engineering

19UME405 - AUTOMOBILE ENGINEERING

(Regulation 2019)

Duration: Three hours

Maximum: 100 Marks

PART A - (10 x 2 = 20 Marks)

Answer Any ten of the following Questions

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| 1. Write down any two main sections of vehicle construction. | CO1- U |
| 2. List out the types of vehicle suspensions? | CO1- U |
| 3. Why is the frame narrow at front? | CO1- U |
| 4. Why you need a gearbox? | CO2- U |
| 5. List the functions of a gearbox? | CO1- U |
| 6. Define the Electronic ignition system? | CO2- U |
| 7. List out the different types of wheels? | CO3- U |
| 8. Distinguish between disc brake with drum brake | CO3- U |
| 9. List out the benefits of anti-lock brake system? | CO3- U |
| 10. Explain the fuel cell? | CO4- U |
| 11. Explain about alternative fuels? | CO4- U |
| 12. List the types of fuelcell? | CO4- U |
| 13. Explain the Artificial Intelligence with examples? | CO5- U |
| 14. List the 4 types of AI? | CO5- U |
| 15. Outline the working of cruise control? | CO5- U |

PART – B (5 x 16= 80 Marks)

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|---|--------|------|
| 11. (a) Explain the construction of Different Layouts of a Car? | CO1- U | (16) |
| Or | | |
| (b) Describe the construction of various types of chassis used in automobile with neat sketch | CO1- U | (16) |

12. (a) Discuss any one type of multi point fuel injection system with a schematic layout CO2- U (16)
Or
(b) Outline the Principle of Friction clutch? CO2- U (16)
13. (a) Explain with neat sketch of Pneumatic and Hydraulic Braking Systems CO3- U (16)
Or
(b) Explain the Layout of conventional Steering System CO3- U (16)
14. (a) Explain the Emission norms and emission control techniques CO4-U (16)
Or
(b) Discuss about the use of biodiesel in automobile? CO4-U (16)
15. (a) Explain in detail about the electrical vehicle system with a block diagram CO5-U (16)
Or
(b) Discuss in detail about various types of hybrid vehicle with neat sketch CO5-U (16)