

Reg. No. :

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**Question Paper Code: 94705**

B.E./B.Tech. DEGREE EXAMINATION, NOV 2022

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. Explain the term Chassis                         | CO1- U |
| 2. Explain the Sensor?                              | 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. List out the Features of IoT                    | CO5- U |
| 14. State the characteristics of IoT.               | CO5- U |
| 15. Compare the Logical and physical design of IoT  | CO5- U |

PART – B (5 x 16= 80 Marks)

11. (a) Explain the construction of Piston and piston rings with neat sketch CO1- U (16)

Or

- (b) Describe the construction of various types of chassis used in automobile with neat sketch CO1- U (16)
12. (a) Explain the working of Electronic Injection System with neat sketches CO2- U (16)
- Or
- (b) Outline the Principle of Friction clutch? CO2- U (16)
13. (a) Explain the working of Power Steering system with neat sketches CO3- U (16)
- Or
- (b) Explain the working of Suspension system with neat sketches 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) Explain the Biometric vehicle access System in Automobile? CO5-U (16)