Reg.No. \_\_\_\_\_\_\_\_\_\_\_\_



**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

**End Semester Examination – Nov/Dec – 2017**

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| **Code :** | **14ME2017** | **Duration :** | **3hrs** |
| **Sub. Name:** | **BASIC AUTOMOBILE ENGINEERING** | **Max. Marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

|  |  |  |  |  |
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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. |  | Define clutch? Explain single plate clutch and multiplate clutch with a neat sketch. | CO1 | 20 |
| (OR) | | | | |
| 2. |  | Classify the types of steering system? Explain rack and pinion steering system and power steering with neat sketch. | CO1 | 20 |
|  |  |  |  |  |
| 3. |  | State the purpose of transmission system in automobiles. Explain sliding mesh gear box with a neat sketch. | CO1 | 20 |
| (OR) | | | | |
| 4. |  | Derive an expression of a constant pressure cycle with P-V and T-S diagram. | CO4 | 20 |
|  |  |  |  |  |
| 5. | a. | With a neat sketch, explain the working of four stroke petrol engine. | CO2 | 10 |
|  | b. | What are the different types of fuels used in automobiles and explain the properties of fuels in detail? | CO2 | 10 |
| (OR) | | | | |
| 6. | a. | Write in detail about the various parts of the engine with a neat sketch. | CO2 | 10 |
|  | b. | Explain any one type of ignition system with a neat sketch | CO2 | 10 |
|  |  |  |  |  |
| 7. | a. | Define MPFI. Illustrate MPFI system with a neat sketch. | CO2 | 15 |
|  | b. | What are the properties of Lubricants? | CO2 | 5 |
| (OR) | | | | |
| 8. | a. | Explain the working of solex carburetor with a neat sketch. | CO3 | 15 |
|  | b. | Write in detail about the history of automobiles. | CO3 | 5 |
|  | |  |  |  |
|  | | **Compulsory:** |  |  |
| 9. |  | Write a case study of recent advancements in cars and bikes in automobile industry. | CO5 | 20 |

ALL THE BEST