

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

Name: \_\_\_\_\_

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**  
**EIGHTH SEMESTER B.TECH DEGREE EXAMINATION, MAY 2019**

**Course Code: AU402**

**Course Name: TWO AND THREE WHEELERS**

Max. Marks: 100

Duration: 3 Hours

**PART A**

*Answer any three full questions, each carries 10 marks.*

Marks

- |   |  |       |
|---|--|-------|
| 1 | a) Compare between CI and SI Engines   | ( 5)  |
|   | b) Compare between two stroke and four stroke engine based on its structure and working                        | ( 5)  |
| 2 | Explain the construction and working of a two stroke diesel engine with functions of various engine components | ( 10) |
| 3 | a) What is the purpose of a fuel coke? Explain the working of a fuel coke                                      | ( 6)  |
|   | b) Explain the advantages of electronic fuel injection over conventional fuel system                           | ( 4)  |
| 4 | a) Describe petrol lubrication system used in two stroke engines   | ( 5)  |
|   | b) What is meant by splash lubrication? Explain briefly.   | ( 5)  |

**PART B**

*Answer any three full questions, each carries 10 marks.*

- |   |   |        |
|---|---|--------|
| 5 | Explain about multi plate clutch with neat sketch?  | (10)   |
| 6 | What is the difference between centrifugal and single plate clutch? Explain with neat sketches? | ( 10 ) |
| 7 | Explain about telescopic shock absorber with neat sketch?                                       | (10)   |
| 8 | a) Explain freewheeling devices used in two wheelers?   | ( 5)   |
|   | b) Explain the needs of clutch in two and three wheelers?                                       | ( 5)   |

**PART C**

*Answer any four full questions, each carries 10 marks.*

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|----|---|------|
| 9  | a) Classify the brakes used in two wheelers                           | ( 2) |
|    | b) Write the description about each one of the brakes?                | ( 3) |
|    | c) With the help of neat diagram explain the working of disc brakes   | ( 5) |
| 10 | a) Write the different types of wheels used in two wheelers.          | ( 5) |
|    | b) Explain the advantages of each type of wheels used in two wheelers | ( 5) |

- 11 Draw and explain the brake actuation mechanism used in two wheelers ( 10)
- 12 Explain the detail structure of delivery van (10)
- 13 Explain the service and maintenance of two wheelers (10)
- 14 a) Write short notes about the pick-up vans (5)
- b) Explain the service and maintenance of any one type of van (5)

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