



P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution affiliated to VTU, Belgaum)

Seventh Semester, B.E. - Automobile Engineering

Semester End Examination; Dec. - 2015

Two and Three Wheeled Vehicles

Time: 3 hrs

Max. Marks: 100

Note: Answer any **FIVE** full questions, selecting at least **TWO** full questions from each **part**.

PART - A

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| 1 a. | Explain a typical valve timing diagram of a two stroke engine. | 10 |
| | b. Explain the working of rotary valve for two stroke engine. What are the advantages of rotary valve? | 10 |
| 2 a. | Describe the construction and working of simple carburettor in two wheelers. | 10 |
| | b. What are the types of cooling systems? What are the advantages of air cooling system? | 6 |
| | c. What is the primary requirement of two stroke engine oil? | 4 |
| 3 a. | Discuss the construction and working of the clutch in the scooter with sketch. | 10 |
| | b. With sketch describe the working of constant mesh gear box. | 10 |
| 4 a. | Explain the basic types of frames used in motorcycles. | 10 |
| | b. With neat diagram describe the construction and working of a shock absorber used in two wheelers. | 10 |

PART - B

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| 5 a. | Sketch and explain the working of disc brake system used in two wheelers. | 10 |
| | b. Describe in detail constructional features of tubed and tubeless tyres for two wheelers. Discuss their relative merits and demerits. | 10 |
| 6 a. | Explain magneto ignition system used in mopeds and scooters with sketch. | 10 |
| | b. Describe the working of direction, indicating flasher lamp in two wheelers. | 10 |
| 7 a. | Explain the layout of engine to the wheels of autorickshaw. | 10 |
| | b. Describe the type of front fork used in delivery van. | 10 |
| 8 a. | Discuss decarburizing procedure for a silencer. | 10 |
| | b. Write a note on preventive maintenance in two wheelers. | 10 |

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