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MANIPAL INSTITUTE OF TECHNOLOGY
Manipal University, Manipal – 576 104



DEPARTMENT OF AERONAUTICAL & AUTOMOBILE ENGINEERING
IV SEM. B.TECH DEGREE MAKEUP SEMESTER EXAMINATIONS JUNE 2016

SUBJECT: OPEN ELECTIVE : AUTOMOBILE ENGINEERING (AAE-3283)
REVISED CREDIT SYSTEM

Time: 3 Hours.

MAX.MARKS: 50

Instructions to Candidates:

❖ Answer **ALL** the questions.

- 1 A) With the help of a neat sketch, explain tickler method of starting system. (02)
- 1 B) Explain the working of Mechanical fuel pump, With the help of a neat sketch. (03)
- 1 C) How automotive engines are classified on the basis of location of their valves, explain briefly. (05)
- 2 A) Explain briefly about the double de clutching. (02)
- 2 B) What are the requirements of a good clutch. (03)
- 2 C) With the help of a neat sketch, explain the working of Pressurized water cooling system and list any four advantages of the same. (05)
- 3 A) With the help of a line diagram explain the elements of a Suspension system. (02)
- 3 B) Sketch and explain telescopic type shock absorber. (03)
- 3 C) Explain rack and pinion steering gear box with the help of a neat sketch and mention any four advantages and any two disadvantages of the same. (05)
- 4 A) Explain briefly about the wheel skidding. (02)
- 4 B) With the help of a line diagram, explain air braking system and list the advantages of the same. (03)
- 4 C) Explain briefly about the classification of braking system. (05)

- 5 A) What are the advantages and disadvantages of light alloy cast wheels. (02)
- 5 B) Explain the differences between tubed tyre and the tubeless tyre. (03)
- 5 C) Explain the working of a standard bendix drive, with the help of a neat sketch. (05)