CBCS SCHEME

USN | | | | | | | | | | |

15ME655

Sixth Semester B.E. Degree Examination, June/July 2019
Automobile Engineering

Time: 3 hrs. Max. Marks: 80

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

1 a. With the help of PV diagram, compare SI and CI engines. **(06 Marks)**
b. With help of neat sketch give construction details of connecting rod. **(05 Marks)**
c. With help of neat sketch, explain pre-chamber type of combustion chamber. **(05 Marks)**

OR

2 a. Why cooling is necessary and what are different methods of cooling? **(04 Marks)**
b. Classify valve operating mechanisms and with the help of diagram, explain overhead inlet and side exhaust valve mechanism. **(06 Marks)**
c. Explain dry sump lubrication system, with help of neat sketch. **(06 Marks)**

Module-2

3 a. With the help of neat sketch explain multi-plate clutch. **(08 Marks)**
b. Sketch and explain Hotch Kiss Drive and also compare with torque tube. **(08 Marks)**

OR

4 a. Explain working of master cylinder of a braking system with the help of neat sketch. **(10 Marks)**
b. What is ABS? Explain with appropriate sketch. **(06 Marks)**

Module-3

5 a. Define following: (i) Camber (ii) Caster (iii) King pin inclination **(06 Marks)**
b. With the help of sketch explain Mac person strut type sub pension. **(10 Marks)**

OR

6 a. What are the requirements of Ignition system? **(04 Marks)**
b. Sketch and explain Electronic Ignition system. **(08 Marks)**
c. Compare Battery and Magneto Ignition system. **(04 Marks)**

Module-4

7 a. What do you mean by supercharging? Explain any one method of super charging. **(06 Marks)**
b. Explain centrifugal type of super charger. **(06 Marks)**
c. What are limitations of turbo charging? **(04 Marks)**

OR

8 a. What are fuel mixture requirements for SI engine? **(04 Marks)**
b. Explain working of Zenith carburetor. **(08 Marks)**
c. What are CRD engine? Explain principle of working. **(04 Marks)**

Module-5

9 a. Mention various pollutants. List measures to be taken to reduce pollution. **(04 Marks)**
b. Discuss positive crank case ventilation system to control crank case emission. **(06 Marks)**
c. Discuss how evaporative emissions can be controlled. **(06 Marks)**

OR

10 a. Discuss about, how air injection system controls pollution. **(06 Marks)**
b. Write short notes on any two:
i) Catalytic converter
ii) Euro IV norms for petrol and diesel engines
iii) Redesign of combustion chamber to control emission. **(10 Marks)**

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