

B.E. Sixth Semester (Mechanical Engineering) (CGS)

10858 : Elective - I : Automobile Engineering : 6 FEME 05

P. Pages : 2

AU - 2744

Time : Three Hours



Max. Marks : 80

- Notes :
1. Answer **Three** question from Section A and **three** question from Section B.
 2. Due credit will be given to neatness and adequate dimensions.
 3. Illustrate your answer necessary with the help of neat sketches.
 4. Use of pen Blue/black ink/refill only for writing the answer book.

SECTION-A

1. a) Explain with neat sketch working four stroke S.I. engine. 7
- b) Explain Multiple cylinder engines. 6

OR

2. a) Explain with neat sketch various component of an Automobile. 7
- b) What do you meant by firing order in an engine. Explain firing order with suitable example. 6
3. a) Explain with neat sketch Mechanical fuel pump. Also state its limitations. 7
- b) Explain with neat sketch Air and water cooling system. 6

OR

4. a) Explain with neat sketch By-pass recirculation system. 7
- b) Discuss Multipoint Fuel Injection System (M.P.F.I) with diagram. 6
5. a) Why Starting drives are necessary. Explain with neat sketch Bendix drive. 7
- b) What is function of injection system. Explain neat sketch Battery injection system. 7

OR

6. a) Explain with neat sketch Electronic injection system. 7
- b) Explain Battery Rating and Battery capacity. 7

SECTION-B

7. a) What is function of clutch? Explain construction and working of single plate clutch. 6
- b) Why differential is necessary? Explain with neat sketch construction and working of differential. 7

OR

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|----|----|---|---|
| 8. | a) | Explain with neat sketch sliding mesh gear box. | 7 |
| | b) | Explain with neat sketch torque tube drive. | 6 |
| 9. | a) | Explain with sketch Hydraulic braking system. | 7 |
| | b) | Explain with neat sketch power steering system. | 7 |

OR

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|-----|-----|--|---|
| 10. | a) | Explain the following. | 7 |
| | i) | Camber | |
| | ii) | King-pin inclination | |
| | b) | Explain with diagram vacuum brakes. | 7 |
| 11. | a) | Discuss the characteristic of lubricating oil. | 6 |
| | b) | Explain with neat sketch shock absorber. | 7 |

OR

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|-----|-----|--|---|
| 12. | a) | What is multi viscosity oil? Why it is used and recommended for lubrication system? Explain. | 6 |
| | b) | Explain with neat sketch following. | 7 |
| | i) | Gear-pump | |
| | ii) | Splash lubrication system | |
