

PART — C

(Maximum marks : 60)

(Answer *one* full question from each unit. Each full question carries 15 marks.)

UNIT — I

- III (a) Sketch and explain the working of diaphragm spring type single plate clutch. 7
 (b) Discuss the Hydraulic operation of clutch with a diagram. 8

OR

- IV (a) Discuss the constructional features of clutch plate with a sketch. 7
 (b) Explain with Sketch, the constructional details of a Semi centrifugal clutch. 8

UNIT — II

- V (a) With the aid of sketch explain the working of Freewheel unit. 7
 (b) Describe the working of gear selector mechanism with gear lever on the top of the transmission case. 8

OR

- VI (a) Sketch and explain the working of Torque converter. 7
 (b) Label a 4 speed constant mesh gear box with 3rd gear in engaged position. 8

UNIT — III

- VII (a) Discuss the working of Hotchkiss drive drive. 7
 (b) Explain the working of a differential unit in a car. 8

OR

- VIII (a) Sketch and explain the working of Rzeppa joint. 7
 (b) Illustrate any two differential locking mechanisms. 8

UNIT — IV

- IX (a) Designate a wheel and a tyre, with examples and sketches. 7
 (b) Explain the classification of tyres based on carcass. 8

OR

- X (a) Sketch the cross-section of a tyre and describe its construction. 7
 (b) Explain the constructional details of alloy cast wheels and list its advantages. 8
