

Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

B.Tech S5 (S) Exam Sept 2020

Course Code: AU305**Course Name: VEHICLE MAINTENANCE**

Max. Marks: 100

Duration: 3 Hours

PART A*Answer any three full questions, each carries 10 marks.*

Marks

- 1 a) How PDI differs from Jobcard? Explain with suitable example. (6)
- b) What are the various periodic maintenance to be carried out on a vehicle? (4)
- 2 a) What are the factors to be considered for selection of site for service station? (4)
- b) Draw the layout of typical high way service station and indicate the various departments in it. (6)
- 3 How do you diagnose the engine require major overhauling? What are the major steps involved in major overhauling of an engine? (10)
- 4 What is the difference between engine analyser and scan tool? Explain the capabilities of both. (10)

PART B*Answer any three full questions, each carries 10 marks.*

- 5 a) How do you diagnose and service election injection system? explain (6)
- b) How calibration and phase setting of mechanical injector is carried out? (4)
- 6 a) What do you mean by SAE rating of lubricants? What do you mean by SAE20W40? Explain (4)
- b) What is the need of periodic top up or change of lubricants? What are the various points that need to be lubrication in a vehicle? (6)
- 7 a) What are the major steps involved in servicing of radiator? Explain (6)
- b) What are the various maintenance to be carried out on water pump? (4)
- 8 What are the various tests and services that can be carried out by air conditioning testing and recycling equipment? Explain. (2)

PART C

Answer any four full questions, each carries 10 marks.

- 9 a) What is the importance of clutch pedal play adjustment? How it is carried out? (6)
b) What are the various adjustments needed in a steering gear box? Explain. (4)
- 10 How the wheel alignment is carried out using computerized wheel alignment? (10)
What are the pre-alignment checks to be carried out before the wheel alignment?
- 11 a) What is braking efficiency? How it can be calculated using stopping distance test? (4)
b) What is tyre rotation? Why it is needed? Explain the typical tyre rotation of a car with diagram. (6)
- 12 What are the various stages involved in maintenance of a charging system? (10)
- 13 a) What is trickle charging? When it is needed? How it is carried out? (4)
b) What are the various methods of adjusting the head light? Explain briefly. (6)
- 14 What is the difference between low voltage bulb method and neon timing methods of adjusting ignition timing? Explain the procedure involved in both. (10)
