

R13

Code No: 126EH

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech III Year II Semester Examinations, July - 2023

AUTOMOBILE ENGINEERING

(Mechanical Engineering)

Time: 3 hours

Max. Marks: 75

Note: i) Question paper consists of Part A, Part B.

ii) Part A is compulsory, which carries 25 marks. In Part A, Answer all questions.

iii) In Part B, Answer any one question from each unit. Each question carries 10 marks and may have a, b as sub questions.

PART - A

(25 Marks)

- 1.a) Draw the layout of automobile. [2]
- b) Outline CRDI and TDI Systems. [3]
- c) List requirements of cooling. [2]
- d) Label the types of radiators. [3]
- e) What is the significance of torque-tube drive? [2]
- f) Outline the objects of suspension systems. [3]
- g) Define camber and castor. [2]
- h) List the advantages of vacuum brakes. [3]
- i) Outline the merits of biomass. [2]
- j) Label hydrogen as a fuel for IC Engines. [3]

PART - B

(50 Marks)

- 2.a) Explain engine servicing.
- b) Analyze working of carburetor with neat sketch. [5+5]

OR

3. Explain types of injection systems, injection timing and testing of fuel pumps. [10]
4. Evaluate magneto coil ignition system and electronic ignition system using contact breaker. [10]

OR

5. Construct the working of bendix drive mechanism, solenoid switch and lighting systems. [10]

6. Interpret the various types of clutches in detail. [10]

OR

- 7.a) Explain rigid axle suspension system.
- b) Analyze synchro mesh gear box. [5+5]

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8. Distinguish between mechanical brake system and hydraulic brake system. [10]

OR

9. Explain types of steering mechanism with neat diagrams. [10]

QA QA QA QA QA QA QA G

10.a) Interpret techniques of pollution control. [5+5]
b) Discuss liquid Fuels and gaseous fuels.

OR

11.a) Summarize the emissions from automobiles. [5+5]
b) Analyze Standard Vehicle maintenance practice.

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