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PRESIDENCY UNIVERSITY BENGALURU

 **SET-A**

SCHOOL OF ENGINEERING

**END TERM EXAMINATION –MAY/ JUNE 2024**

**Semester :** Semester VI - 2021

**Course Code :** MEC3010

**Course Name:** Automotive Engineering

**Program :** B. Tech.

**Date :** June 6, 2024

**Time :** 1:00 PM - 4:00 PM

# Max Marks : 100

**Weightage :** 50%

# Instructions:

1. *Read all questions carefully and answer accordingly.*
2. *Question paper consists of 3 parts.*
3. *Scientific and non-programmable calculator are permitted.*
4. *Do not write any information on the question paper other than Roll Number.*

**PART A**

**ANSWER ANY FIVE QUESTIONS 5QX2M=10**

1. Sketch the actual valve timing diagram Four Stroke Engine.
2. What is the function of split axles?
3. What is the need of using supercharger?
4. List the advantages of geared vehicle compared to non-geared vehicle.
5. Write the step by step drive line of a transmission system.
6. What is the function of spark plug.
7. What is the need of lubrication?

(CO1) [Knowledge] (CO1) [Knowledge] (CO2) [Knowledge] (CO2) [Knowledge] (CO2) [Knowledge] (CO3) [Knowledge] (CO2) [Knowledge]

**PART B**

**ANSWER ANY FIVE QUESTIONS 5QX10M=50**

1. With sketch explain the working of differential box.

(CO3) [Comprehension]

1. List the necessary of cooling systems.
2. Explain briefly the main functions of lubrication system.

(CO3) [Comprehension] (CO2) [Comprehension]

1. List the advantages of Force Circulation System over Thermo syphon system.

(CO3) [Comprehension]

1. Differentiate between thermo sympyon and water cooling system.
2. Briefly explain the working of mist lubrication system.
3. With sketch explain constant mesh gear box.

(CO2) [Comprehension] (CO2) [Comprehension] (CO3) [Comprehension]

**PART C**

**ANSWER ANY TWO QUESTIONS 2QX20M=40**

1. With sketch explain the constant mesh gear box.
2. List the requirements of water and air cooling systems.
3. List the advantages, limitations and applications of water cooling system

(CO3) [Application] (CO4) [Application] (CO4) [Application]