Roll No. _____

END SEMESTER EXAMINATION
SEMESTER- III

COURSE CODE: EEE-411/EE411 | **DURATION: 3 (THREE)HRS**
COURSE TITLE: HEAT ENGINE | **MAXIMUM MARKS: 75**
SESSION: JULY-DEC' 2021 | **PASS MARKS: 35 %**

NOTE:
1. All the questions are compulsory
2. Attempt any 5 (five) questions.
3. Mark for each question is shown against it.
4. Assume suitable logical data wherever necessary.

1. **(a)** Define: 1) Convection 2) Conduction 3) Radiation **(5)**
(b) What is an I.C Engine? How this engine can be classified? **(4)**
(c) Explain the working principle of 4-Stroke petrol engine with a suitable diagram. **(6)**

2. **(a)** Differentiate between S.I engine and I.C engine. **(5)**
(b) What is compounding? How are velocity compounding and pressure compounding used **(10)**

3. **(a)** Explain Isochronism **(5)**
(b) Write short note on external treatment of feed water. **(5)**
(c) Define Isothermal and Adiabatic process of heating. **(5)**

4. **(a)** What are the functions of a condenser in a steam power plant? Explain in details different types of steam condenser. **(10)**
(b) With the help of line diagram, explain main system of steam power plant. **(5)**

5. **(a)** Describe different type of Boilers and explain each of them briefly. **(10)**
(b) Explain the principle of steam engine along with suitable diagram. **(5)**

6. **(a)** Write a short note on 2-Stroke Engine. **(8)**
(b) What is mounting and accessories in a Boiler plant. Give some examples for each. **(7)**

7. **(a)** Describe Rankine cycle in details. **(5)**
(b) Write a short note on different types of governors. **(10)**

8. **(a)** Write the advantages and disadvantages of artificial draught. **(5)**
(b) Explain induced draught, forced draught and balance draught in details. **(10)**

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