THERMODYNAMICS

***General Instructions*:** Answer all the questions. If you are unable to answer any question, go through the page number that is given against that particular question in the text book. You can find the answer.

Test Paper-II

MAX MARKS: 30 **TIME: 90Mts**

1	Name the process in which the temperature of the system is kept constant. Derive an expression to find the work done by the gas in increasing the volume from $v1\ to\ v2$ for the same process.	P306	3
2	Name the process in which there is no heat flow between the system and the surroundings. Also derive an expression to find the work done in the process from the state $(P1, V1, T1) to\ the\ state\ (P2, V2, T2)$.	P307	3
3	Give the differences between Isothermal process and Adiabatic process	P307	2
4	Name the process in which pressure is maintained constant. How does it vary from an Isochoric process?	P307	2
5	What is a Heat engine? Explain the working of a Heat Engine. Also derive the expression to find the efficiency of Heat engine	P308	3
6	Explain the working of a Refrigerator. Derive the expression for coefficient of performance of a refrigerator.	P309	3
7	State "***second Law of thermodynamics "given*** by Kelvin-Planck and Clausius. What do you understand form the statement?	P310	2
8	What is an irreversible process? Give some examples. What are the causes of irreversibility of these process?	P310	3
9	What is a reversible process? Give an example. Why is reversibility a basic concept in thermodynamics?	P310	3
10	Derive an expression for the efficiency of a Carnot engine.	P311	3
11	State & Prove Carnot theorem	P312	3