B.Sc. DEGREE EXAMINATION,APRIL 2020
I Year I Semester
Thermal Physics

Time : 3 Hours **Max.marks :60**

Section A $(10 \times 1 = 10)$ Marks

Answer any **TEN** questions

1. Write all types of thermometers.
2. Give any two application of thermistor.
3. Define specific heat capacity.
4. Explain half time correction.
5. What is the principles of adiabatic demagnetization.
6. Define refrigeration.
7. Define thermal conductivity.
8. Difference between good conductor and bad conductor?
9. Write note on radiation.
10. State Rayleigh-Jean's law.
11. Write the application of low temperature for particle.
12. State Stefan's law.

Section B $(5 \times 4 = 20)$ Marks

Answer any **FIVE** questions

13. Write a note on platinum resistance thermometer.
14. Describe the specific heat capacity of solids.
15. Draw and explain the Porous Plug experiments.
16. Explain thermal diffusivity.
17. Define Kirchoff's law and briefly explain.
18. Drive the expression for C_v by Joly's method.
19. Explain energy distribution of block body radiation.

Section C $(3 \times 10 = 30)$ Marks

Answer any **THREE** questions

20. Describe the conduction and applications of thermistor.
21. Briefly explain for Mayer's relation between C_p & C_v.
22. Describe Carnot's cycle refrigerator.
23. Construct and explain Lee's Disc methods.
24. Derive the Planck's law.

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