

2nd Semester Practical Examination 2021

Course Title: Electromagnetism and thermal Physics (GE P2)

Course ID: 22424

Course Code: SHPHS/203/GE-2

Time: 1 Hour

Full Marks: 15

Answer any 3 questions: 5×3=15

1. What is Stefan's Law? What are emissive and absorptive power?
2+3=5

2. What is a Black body? What is emissive power of a black body?
Define Planck's constant. 2+1+2=5

3. What is Wien's Displacement law? Explain the energy distribution of
a black body radiation spectrum. 2+3=5

4. Derive an expression for resonant frequency. What is the condition
of resonance in an LRC circuit? What is the bandwidth of a series
resonant circuit? 2+1+2=5

5. What is an ideal voltage source? What is Thevenin's theorem? What
is Norton's theorem? 1+2+2=5