[LP 0819] AUGUST 2019 **Sub. Code: 5004**

B.Sc. MEDICAL LABORATORY TECHNOLOGY
FIRST YEAR
PAPER IV – PHYSICS & PRINCIPLES OF INSTRUMENTATION

Q.P. Code: 725004

Time: Three Hours **Maximum: 100 Marks**

Answer all questions

I. Elaborate on: **(3 x 10 = 30)**

1. Briefly explain the working of a chemical balance with a neat diagram and state the requirement of a good balance.
2. Describe construction of an electron microscope.
3. Principle and production of ultrasound and its application in clinical field.

II. Write notes on: **(8 x 5 = 40)**

1. Explain photoelectric emission.
2. Principle and working of GM counter.
3. Incubator and its part.
4. Temperature and its measurement.
5. Difference between reflection and refraction.
6. Parts of a distillation apparatus.
7. Full wave rectifier.
8. Uses of Filters.

III. Short answers on: **(10 x 3 = 30)**

1. Magnification.
2. Define speed.
3. Charle's law.
4. What is stabilizer?
5. Refrigerator.
6. Advantages of earthing and fuses in electrical connections.
7. What is Heat?
8. Frequency.
9. Semi conductors.
10. Charged particle radiation.

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