

[AHS 0321]

MARCH 2021

Sub. Code: 5004

(AUGUST 2020 EXAM SESSION)

B.Sc. MEDICAL LABORATORY TECHNOLOGY

FIRST YEAR (From 2010-2011 onwards)

PAPER IV – PHYSICS AND PRINCIPLES OF INSTRUMENTATION

Q.P. Code : 725004

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(3 x 10 = 30)

1. Describe in detail, the construction and working of centrifuge. What are the applications of centrifuge in medical laboratory.
2. Describe in detail, the construction and working of electron microscope. What are the advantages compared to other microscopes.
3. Describe about radiation personnel monitoring devices used in hospitals.

II. Write notes on:

(8 x 5 = 40)

1. Specific gravity and its applications.
2. Kinetic Theory of gases.
3. Laser types and applications.
4. Production of ultrasound
5. Construction and working of transformer
6. Radioactivity.
7. Rectifier
8. Incubator

III. Short answers on:

(10 x 3 = 30)

1. Osmosis.
2. Thermostat.
3. Total internal Reflection.
4. What is ultrasound?
5. Fuse.
6. What is wavelength?
7. What is UPS?
8. Application of Ultrasound in medicine.
9. Half life.
10. Electromagnetic spectrum.
