

[AHS 0321]

MARCH 2021

Sub. Code: 2103

(AUGUST 2020 EXAM SESSION)

B.Sc. NUCLEAR MEDICINE TECHNOLOGY

FIRST YEAR (Regulations 2010-2011)

PAPER III – BASIC PHYSICS &amp; NUCLEAR PHYSICS

Q.P. Code : 802103

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

**I. Elaborate on:**

(3 x 10 = 30)

1. Explain the Electromagnetic spectrum.
2. Explain Interaction Radiation with matter and its important.
3. Explain X-ray production.

**II. Write notes on:**

(8 x 5 = 40)

1. Half value layer
2. Electromagnetic Induction.
3. Isotope and Isomer
4. Decay constant.
5. Linear Attenuation coefficient.
6. Ohm's Law.
7. Biological Half life.
8. State Natural and artificial radioactive sources.

**III. Short answers on:**

(10 x 3 = 30)

1. Discoverer of X-ray.
2. Unit of electric charge.
3. Mass of Neutron.
4. Alpha Ray.
5. Shielding material for Alpha particle.
6. Relationship of rad and grey.
7. Difference between Gamma and X-ray.
8. Half life of Tc-99m.
9. Inert Gases.
10. Biological Half Life.

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