S.No.M21601 Course code : 32718302

VINAYAKA MISSION'S RESEARCH FOUNDATION (DU), SALEM

B.SC (NUCLEAR MEDICINE TECHNOLOGY) DEGREE EXAMINATION - September 2021

Third Year

RADIATION BIOLOGY & RADIATION SAFETY IN NUCLEAR MEDICINE

Three Hours Maximum: 75 marks

I. Write an essay on any ONE of the following: (1 x 20 = 20

1. Describe in detail the induction of radiation injury.
2. Role of Radiological Safety Officer (RSO) in a Nuclear Medicine department. Discuss his/her duties and responsibilities.

II. Write short notes on any TWO of the following: (2 x 10 = 20)

3. Define the terms; absorbed dose, equivalent dose, effective dose
4. Calculation of absorbed dose.
5. Radiation induced chromosome damage
6. Radiation protection for occupational workers.

III. Write short answers on any SEVEN of the following: (7 x 5 = 35)

7. Structure of DNA.
8. Effective Half-life.
9. External exposure.
10. Radiation sickness.
11. Equivalent Dose.
12. Internal exposure.
13. Beta particles properties.
14. ALARA.
15. FDG storage containers.
16. Use of different filters in film badge.

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