

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

B.Sc. (Radiotherapy Technology) (Sem.-4)

BIOLOGICAL EFFECTS OF RADIATIONS

Subject Code : BSRT-407-19

M.Code : 79721

Date of Examination : 13-07-22

Time : 3 Hrs.

Max. Marks : 30

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying ONE mark each.
2. SECTION-B contains FIVE questions carrying TWO AND A HALF marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying FIVE marks each and students have to attempt any TWO questions.

SECTION-A

1. Write briefly :

- a) Define $LD_{50/60}$?
- b) Write down the names of cell components.
- c) How is free radical formation?
- d) What are the biological effects of radiation?
- e) What are the acute effects of radiation?
- f) What is the hereditary effect?
- g) Write the applications of radiation in daily life.
- h) What are the effects of ionizing radiation on cells?
- i) Define the term chromatid aberration.
- j) Write two sources of radiation.

SECTION-B

2. Difference between chromosomal and chromatid aberrations.
3. Write a short note on somatic effects.
4. Mention the milestones of the chemical reaction of radiation with cells.
5. Write a short note on biological dosimetry.
6. Discuss the early and late effects of radiation on a biological system.

SECTION-C

7. What is a cell? Write details about the effect of ionizing radiation on cells.
8. Explain the role of RTT in managing the acute effects of radiation.
9. Describe the details about stochastic effects with examples.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.