[LJ 0816] AUGUST 2016 **Sub. Code: 1414**

DIPLOMA IN RADIOLOGY IMAGING TECHNOLOGY
SECOND YEAR
PAPER IV – QUALITY CONTROL IN RADIOLOGY AND RADIATION SAFETY

Q.P. Code: 841414

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

Answer All questions.

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

1. Explain the various effects of radiation on the human body.
2. Planning of radiology department.
3. List and explain the various personnel monitoring devices.

II. Write notes on: **(10 x 5 = 50)**

1. Explain the principle and working of free air ionization chamber.
2. Explain about area monitoring.
3. RSO.
4. Construction of a dark room.
5. Measurement of CT dose index.
6. Describe the Film Badge and uses.
7. Inverse square law.
8. Explain Geiger Muller Counter.
9. Explain AERB recommendation on dose limit for radiation workers.
10. Describe method of output consistency checking in radiography unit.

III. Short answers on: **(10 x 2 = 20)**

1. Write abbreviation for AERB, ELORA.
2. ALARA.
3. Write a short note on Thermo Luminescence Dosimeter.
4. Grids.
5. What is fetal risk?
6. Explain about Occupancy factor.
7. What is Lead equivalence?
8. Kvp, mAs.
9. Give the merits of film badge.
10. Draw the X-ray radiation warning sign.

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