

Roll No

FT - 605

B.E. VI Semester

Examination, June 2015

Nuclear Safety and Radioactive Materials

Time : Three Hours

Maximum Marks : 70

Note: All questions are compulsory. Attempt one question from each unit.

Unit - I

1. a) Discuss the calculation of absorbed dose in media from ionization chamber using exposure dose in air.
- b) How will you monitored air in a building where radioactive activities are carried out.

OR

2. a) What is the role of dose equivalent, explain in detail.
- b) What precautionary steps will be taken by you for minimization of contamination.

Unit - II

3. a) Draw a flow chart to show processing of solid waste in a nuclear power plant.
- b) Explain burial disposal method of radioactive solid waste.

OR

4. a) Explain ion- exchange method for treatment of liquid radioactive waste.
- b) How will you minimize the radioactive waste at the source.

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Unit - III

5. a) How will you storage and handle the radio isotopes.
- b) Explain type A and type B laboratories.

OR

6. Write short note on:

- a) Fume hood
- b) Ventilation system of radioactive labs.

Unit - IV

7. a) Give the names of portable fire extinguishers.
- b) Explain dry chemical powder extinguisher.

OR

8. a) Explain fire fighting equipments.
- b) How will you plan to minimize the radiation incident, Give a flow chart with explanation of all steps.

Unit - V

9. a) Explain the role of heavy water in a Nuclear reactor.
- b) What steps you will take, if explosion takes place in a Nuclear reactor. <http://www.rgpvonline.com>

OR

10. a) Write in brief case study of nuclear explosion takes place in Japan recently.
- b) Explain the bad effects of Nuclear power plant on the health of human being living in the near by area of Nuclear power plant.
