

164-NR

M.D. DEGREE EXAMINATION – APRIL, 2014

RADIOTHERAPY

PAPER-I : BASIC SCIENCES

Time: 3 Hours

Max. Marks:100

Note: Answer all questions

All questions carry equal marks

WRITE SHORT ESSAYS ON THE FOLLOWING:

- 1) What are the different interactions of radiation with matter?
Describe in detail the Compton effect.
- 2) Write in brief on different techniques of hyperthermia for treating cancers. Explain how hyperthermia can complement photon beam treatment.
- 3) Describe the anatomy and lymphatic drainage of nasopharynx. What are the signs and symptoms of nasopharyngeal cancers?
- 4) Write the staging of lung cancer. Write in brief on the prognostic factors on non-small cell lung cancer.
- 5) Pathological classification of bone tumours.
- 6) What are the acute radiation syndromes? Describe cerebrovascular syndrome in detail.
- 7) Write a brief note on mammography.
- 8) What is meant by dose-volume-histogram? What are the different types of DVH? Write the advantages and disadvantages of DVH.
- 9) Kaplan meir survival curve.
- 10) Describe the mammalian cell survival curve. What are the advantages and disadvantages of the LQ model?
