No. of Printed Pages : 2

BAHI-056

00261

B.Sc. IN MEDICAL IMAGING TECHNOLOGY (BMIT)

Term-End Examination

December, 2015

BAHI-056 : ADVANCE PHYSICS OF RADIOLOGICAL EQUIPMENT - II

Time : 3 hours *Maximum Marks : 70*

Note : *There are **nine** questions. Attempt **any six** questions. Question No. **9** is **compulsory**.*

1. With the help of a neat diagram explain the construction and working of a basic ultrasound transducer. **2+3+3=8**

2. Describe the principle and uses of ultrasound doppler. **3+5=8**

3. Describe the construction and working of cone beam CT. **4+4=8**

4. Discuss in detail about 'Radiation Protection in CT.' **8**

5. Describe the various types of magnets used in MRI, along with their pros and cones. **4+4=8**

6. Discuss about contrast media used in MRI. **8**

7. Discuss the various artefacts found in CT. How you can eliminate or reduce them ? **4+4=8**

8. Discuss in detail the process of image formation in diagnostic ultrasound. **8**

9. Write short notes on **any five**. Each note carries **6** marks. **6x5=30**

   (a) 3D - ultrasound.
   (b) Slip ring technology.
   (c) Gradient echo.
   (d) Patient safety in MRI.
   (e) Shimming in MRI.
   (f) Power doppler.
   (g) 3^{rd} generation of CT.
   (h) K - Space in MRI.