

Roll No.

Total No. of Pages : 02

Total No. of Questions : 11

B.Sc. (Radiology & Imaging Technology) (Sem.-3)

EQUIPMENTS OF MODERN IMAGING TECHNOLOGY

Subject Code : BRIT-301-21

M.Code : 92706

Date of Examination : 12-12-22

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A** is **COMPULSORY** consisting of **EIGHT** questions carrying **TWO** marks each.
2. **SECTION-B** contains **EIGHT** questions carrying **FOUR** marks each and students have to attempt any **SIX** questions.
3. **SECTION-C** will comprise of two compulsory questions with internal choice in both these questions. Each question carries **TEN** marks.

SECTION-A

1. **Attempt the following :**
 - a) Define Acoustics.
 - b) Write the principle of Window Width.
 - c) Enlist various factors that affect the CT scan.
 - d) What are the types of CT artifacts?
 - e) Write the safety aspects of MRI.
 - f) Why is mammography done?
 - g) What is TESLA?
 - h) What is the limitation of ultrasound?

SECTION-B

2. Write a short note on 1.5 TESLA.

3. Discuss the procedure and results of tomography.
4. Write briefly about digital radiography.
5. Discuss the role of radiographer in diagnostic of the disease.
6. Write the clinical significance of the piezoelectricity.
7. Define MRI. Explain the purpose of MRI in detail.
8. Write a short note on factors affecting image quality.
9. What is a beam? Explain US beam in detail.

SECTION-C

10. Discuss the principle, equipment and imaging of computed radiography.

OR

Write the principle of tomography. Explain the contrast studies in detail.

11. Define and classify CT artifacts. Write a note on diagnostic aspect of CT.

OR

Discuss the principle, equipment, and imaging of mammography.

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