

Register No.:

629

April 2024

Time – Three hours
(Maximum Marks: 100)

- [N.B. 1. Answer all questions under Part-A. Each question carries 3 marks.
2. Answer all the questions either (A) or (B) in Part-B. Each question carries 14 marks.]

PART – A

1. What is piezoelectric transducer?
2. What are acoustic coupling agents?
3. What is electromagnetic radiation?
4. What is frequency encoding?
5. What is nuclear medicine?
6. List the advantages of SPECT-CT.
7. What is angiography?
8. What is image acquisition?
9. What do you mean by sonography?
10. Write note on three Tesla MRI scanners.

[Turn over.....

PART – B

11. (a) Explain the types of scanning and echo modes in ultrasound with necessary diagrams.

(Or)

- (b) Discuss about the various types of machines in doppler instrumentation.

12. (a) Explain the instrumentation and biological effects in magnetic resonance.

(Or)

- (b) Discuss about the basic magnetic resonance image formation.

13. (a) Explain the working of rectilinear scanners with a neat sketch.

(Or)

- (b) Discuss about PET-CT. Also list its advantages and limitations.

14. (a) Explain the working of conventional angiography X-ray equipment with a neat sketch.

(Or)

- (b) Write short notes on:
(i) DSA
(ii) Cardiac Cath lab

15. (a) Write short notes on:
(i) Digital radiography system.
(ii) Mobile units of computer radiography.

(Or)

- (b) Explain the 128 slice CT scan equipment with necessary diagrams.
