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BRAINWARE UNIVERSITY

Term End Examination 2023

Programme – B.Sc.(MRIT)-2019/B.Sc.(MRIT)-2020

Course Name – Physics of Newer Imaging Modalities

Course Code - BMRIT401

(Semester IV)

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

- (i) Select the correct option: what type of beam is used by 5th generation CT Scan?
 - a) Multiple X-ray beam
 - b) Broad fan beam
 - c) Narrow Fan Beam
 - d) Pencil beam of X-rays
- (ii) What kind of diagnostic test is done if a screening mammogram shows an area that needs closer examination?
 - a) MRI
 - b) Diagnostic mammogram
 - c) Total body X-ray
 - d) EEG
- (iii) Select the correct option: What is a Pitch?
 - a) Couch movement each 360 degree added by slice thickness
 - b) Couch movement each 360 degree Multiplied by slice thickness
 - c) Couch movement each 360 degree divided by slice thickness
 - d) None of these
- (iv) The Digital radiography differs from computed radiography in..... Complete the sentence.
 - a) Reduced radiation exposure
 - b) Digitization of image
 - c) Combined image capture and readout capability
 - d) Reduced retakes
- (v) Represent an Image transmission within a hospital happens via the _____.
 - a) Internet
 - b) Intranet
 - c) Ethernet
 - d) None of these
- (vi) Indicate Fluorography typically...
 - a) produces images of far inferior quality to fluoroscopy
 - b) refers to a continuous x-ray exposure technique
 - c) results in dose rates which are much less than in fluoroscopy
 - d) uses dose rates 10-50 times greater than in fluoroscopy
- (vii) Identify the atomic number of Bismuth is.....
 - a) 83
 - b) 4
 - c) 74
 - d) 131

