



BRAINWARE UNIVERSITY

Term End Examination 2024-2025

Programme – B.Sc.(MRIT)-2022/B.Sc.(MRIT)-2023

Course Name – Radiographic Techniques of Mammography, DEXA, Oral
Radiography with Image Interpretation

Course Code - BMRITC301

(Semester III)

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) Which of the following is the most common technique to measure the bone density?

- a) USG
- b) MRI
- c) DEXA
- d) All of these

(ii) Choose the modalities used in bone density measurement

- a) QCT
- b) QUS
- c) DEXA
- d) All of these

(iii) Bone density testing is strongly recommended in which of the following condition?

- a) Post-menopausal woman and not taking estrogen
- b) Personal or maternal history of hip fracture or smoking
- c) Use medications that are known to cause bone loss
- d) All of these

(iv) DEXA Stands for

- a) Dual Energy X-Ray Absorption
- b) Digital Energy X-Ray Absorption
- c) Digital Energy X-Ray Attenuation
- d) Dual Energy X-Ray Attenuation

(v) Identify the common site of DEXA scan

- a) Chest
- b) Skull
- c) Proximal Hip & Spine
- d) Extrimities

(vi) Which of the following modalities utilising T & Z Score for diagnostic aspect?

- a) Dental Radiography
- b) DEXA
- c) Radiography
- d) Sailography

(vii) Identify what G in the positioning line GML stands for.

- a) Gonion
- b) Glabella
- c) Greater wing
- d) Greater trochanter

(viii) Identify dental Formulas for permanent teeth are

- a) 2122/2122
- b) 2103/2123

- c) 2123/2123 d) 2023/2023
- (ix) Select the right answer; BI-RADS stands for
a) Breast Imaging-Reporting and Data System b) Breast Image-Reporting System
c) Blood Imaging-Report Data System d) None of these
- (x) Select the category VI in BIRADS classification refers to
a) Malignant b) Proved malignancy
c) Benign d) Probably Benign
- (xi) Select which of the following statements in relation to dual energy X-ray absorptiometry (DEXA) scans is CORRECT?
a) An initial DEXA T-score of below -2.5 is considered low risk and no further scanning is required in patients receiving ADT for prostate cancer
b) An initial DEXA T-score between -1 and -2.5 is classified as intermediate risk in patients receiving ADT for prostate cancer and requires further DEXA scans every year
c) DEXA scans are whole body scans and are safe in pregnancy
d) A DEXA scan requires approximately 90 minutes scan time
- (xii) Identify dental radiography consists of
a) Intra-oral radiography b) Extra-oral radiography
c) Both (1) and (2) d) None of these
- (xiii) Identify bitewing radiography is used for
a) Demonstrates the crown of the teeth b) Alveolar crest bone of the premolar & molar region
c) Roots of the tooth d) Both (1) and (2)
- (xiv) Select the category I in BIRADS classification refers to
a) Benign b) Negative
c) Requires additional imaging evaluation d) Suspicious
- (xv) Indicate that Compression used in mammography to improve
a) Spatial resolution b) Contrast resolution
c) Reduce patient dose d) All of these

Group-B

(Short Answer Type Questions)

3 x 5=15

2. What does DEXA stand for? (3)
3. What is the difference between T-score and Z-score in DEXA scan reports? (3)
4. Write the name BIRADS Scale. (3)
5. Describe the benefits of tomosynthesis over mammography? (3)
6. Explain Breast classification in detail. (3)

OR

Explain the role of compression padel in mammography. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Write in detail about advantages and disadvantages of dental radiography (5)
8. Explain OPG in detail. (5)
9. Explain CC & MLO Projection in detail. (5)
10. Explain DEXA. (5)
11. "Differentiate between intraoral and extra oral radiography technique. " (5)
12. Justify the term SD in context of DEXA. (5)

OR

Differentiate the central DEXA & Peripheral DEXA. (5)