

Question Paper

Exam Date & Time: 05-Sep-2019 (02:00 PM - 04:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND SEMESTER BPT / B.Sc. C.V.T./ B.Sc. R.T./ B.Sc. M.I.T./ B.Sc. RRT&DT / B.O.T./ B.Sc. E.S.S. DEGREE
EXAMINATION - SEPTEMBER 2019

SUBJECT : ANATOMY II

(ANAT 104; ANAT 102; ANAT 102/BRES 102; ANAT 102/BMIT 102; ANAT 102; ANAT 104; ANAT 102)
(2016 RV & 2016 SCHEME)

Thursday, September 05, 2019 (14.00 - 16.00)

Marks: 50

Duration: 120 mins.

1) Describe the hip joint under the following headings:

- | | | |
|-----|---|-----|
| 1A) | Articular surfaces | (2) |
| 1B) | Names of the ligaments | (3) |
| 1C) | Muscles producing each of its movements | (3) |
| 1D) | Applied anatomy | (2) |

Answer all the questions.

- | | | |
|-----|--|------|
| 2) | a) Describe the origin, insertion, nerve supply and actions of deltoid muscle.
b) Mention the applied anatomy of deltoid muscle.
c) Name any six structures lying deep to (under cover of) the deltoid muscle.
(2+1+1+2+1+3 = 10 marks) | (10) |
| 3A) | Gluteus medius muscle | (5) |
| 3B) | Ulnar nerve | (5) |
| 3C) | Hamstring muscles | (5) |
| 3D) | Brachial artery | (5) |
| 4A) | Vertebral column | (2) |
| 4B) | Carpal tunnel | (2) |
| 4C) | Serratus anterior muscle | (2) |
| 4D) | Posterior cord of brachial plexus | (2) |
| 4E) | Femoral nerve | (2) |

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Question Paper

Exam Date & Time: 12-Sep-2019 (02:00 PM - 04:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND SEMESTER B.Sc. MEDICAL IMAGING TECHNOLOGY DEGREE EXAMINATION - SEPTEMBER 2019
SUBJECT: BMIT 102 - RADIOGRAPHIC POSITIONING & TECHNIQUES - PART II
(2016 RV SCHEME)
Thursday, September 12, 2019 (14.00 - 16.00)

Marks: 50

Duration: 120 mins.

Answer all the questions.

- 1) Explain briefly the anatomy of Chest. Write a note on Viewing of PA view of chest. (10)
- 2) Discuss in detail the radiographic projection for Spinal Fusion Series. (10)

- 3) **Discuss the following:**
 - 3A) Sub-mento vertical Projection (5)
 - 3B) Radiographic Projection for Schuller's view (5)
 - 3C) Nolke Method for Coccyx (5)

- 4) **Write short notes on:**
 - 4A) Swimmers View (3)
 - 4B) Waters View (3)
 - 4C) Functions of Vertebral column (3)
 - 4D) Thoracic Spine AP Projection (3)
 - 4E) Abdomen erect AP Projection (3)

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Question Paper

Exam Date & Time: 13-Sep-2019 (02:00 PM - 05:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND SEMESTER B.Sc. MEDICAL IMAGING TECHNOLOGY DEGREE EXAMINATION - SEPTEMBER 2019
SUBJECT: BMIT 104 - BASIC PHYSICS IN COMPUTED TOMOGRAPHY & ULTRASONOGRAPHY
(2016 RV SCHEME)
Friday, September 13, 2019 (14.00 - 17.00)

Marks: 100

Duration: 180 mins.

Answer all the questions.

- 1A) Explain in detail Computed Tomography instrumentation. Mention merits and demerits of CT in comparison of other modalities. (20)
- 1B) Write a note on biological effects of ultrasound and safety measures. (20)
- 2A) Draw a diagram of electron beam Computed Tomography and describe its construction and working. (10)
- 2B) Discuss in detail display modes of ultrasound with their clinical applications. (10)
- 3) Discuss the following:
- 3A) USG contrast agents (5)
- 3B) Characteristics of piezoelectric crystals (5)
- 3C) CT reconstruction algorithms (5)
- 3D) Mirror artefact with cause and remedies (5)
- 3E) Pulse wave Doppler (5)
- 3F) Partial volume artefact with and remedies (5)
- 4) Write short notes on:
- 4A) Doppler effect (2)
- 4B) Acoustic impedance (2)
- 4C) Scintillation detector (2)
- 4D) Application of linear transducer (2)
- 4E) CT principle (2)

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