

# 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.<br>b) Mention the applied anatomy of deltoid muscle.<br>c) Name any six structures lying deep to (under cover of) the deltoid muscle.<br>(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 - 05:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND SEMESTER BPT DEGREE EXAMINATION - SEPTEMBER 2019  
SUBJECT: BPT 102 - BASICS OF EXERCISE THERAPY - II  
(2016 RV SCHEME)  
Thursday, September 12, 2019 (14.00 - 17.00)

Marks: 100

Duration: 180 mins.

### Answer all the questions.

- 1A) Define Passive movements. Explain the principles of relaxed passive movements. Discuss the effects (20) and uses of relaxed passive movements. (2+10+8 = 20 marks)
- 1B) Define suspension therapy. Add a note on the types of suspension. Explain the procedure of strengthening the hip abductors using suspension therapy. (20) (2+10+8 = 20 marks)
- 2A) Define range of motion. Discuss the types of goniometers. (10) (2+8 = 10 marks)
- 2B) What is massage? Discuss in detail any two techniques used in massage. (10) (2+8 = 10 marks)

### 3) Write short notes on:

- 3A) Discuss the effects and uses of hydrotherapy. (5)
- 3B) Explain the indications and procedure of measuring apparent lower limb length. (5)
- 3C) Describe the various types of slings used in suspension therapy. (5)
- 3D) Write a note on the principles of goniometry. (5)
- 3E) Discuss the merits and demerits of facial massage. (5)
- 3F) Describe the method of measuring upper limb girth. (5)

### 4) Write brief answers on:

- 4A) Define Arthrokinematics. (2)
- 4B) Define accessory movements. (2)
- 4C) Name any two properties of water. (2)
- 4D) Define end feel. (2)
- 4E) Name any two contraindications for lower limb massage. (2)

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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 BPT DEGREE EXAMINATION - SEPTEMBER 2019

SUBJECT: BPT 104 - ELECTROTHERAPY - I

(2016 RV SCHEME)

Friday, September 13, 2019 (14.00 - 17.00)

Marks: 100

Duration: 180 mins.

### Answer all the questions.

- 1A) Define pain. Enumerate the processes involved in pain production. Explain in detail the ascending and descending mechanism for pain modulation. (20)  
(4+4+12 = 20 marks)
- 1B) Explain in detail the production of low frequency currents. What are the physiological and therapeutic effects of modified faradic currents? Describe their methods of application. (20)  
(6+10+4 = 20 marks)
- 2A) Explain in detail the procedure involved in faradic galvanic test. (10)  
(6+4 = 10 marks)
- 2B) What are medium frequency currents? Describe the principles of production of interferential currents. (10)  
(2+8 = 10 marks)

### 3) Write short answers on:

- 3A) Discuss the characteristic SD curves for innervated and denervated muscle. (5)
- 3B) Classify TENS. Explain the pain modulation mechanism of each. (5)
- 3C) Enumerate the indications for interrupted direct currents. (5)
- 3D) Discuss electrode placement in IFT. (5)
- 3E) Enumerate the contraindications for application of electrical stimulation. (5)
- 3F) Classify nerve fibers and give its characteristics. (5)

### 4) Write brief answers on:

- 4A) Name the types of nerve lesions. (2)
- 4B) What is a pulse ratio? (2)
- 4C) Give any two advantages of TENS. (2)
- 4D) What are sinusoidal currents? (2)
- 4E) Define Beat frequency. (2)

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