

Question Paper

Exam Date & Time: 20-May-2024 (10:00 AM - 12:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND SEMESTER B.Sc. (RT/ MIT/EMT/BPT/CVT/RRT & DT/BOT/AOTT/ PHYSICIAN ASSISTANT/BPO) DEGREE

EXAMINATION - MAY/JUNE 2024

SUBJECT: ANA1201/ ANA1205 - ANATOMY - II

(2020/2022 SCHEME)

Marks: 50

Duration: 120 mins.

Answer all the questions.

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| 1) | Describe the arches of foot and mention their applied anatomy (8+2 = 10 marks) | (10) |
| 2) | Describe the median nerve under following headings A) Origin B) Root value C) Course D) Distribution E) Applied anatomy (1+1+2+5+1 = 10 marks) | (10) |
| 3A) | Popliteal fossa | (5) |
| 3B) | Deltoid muscle | (5) |
| 3C) | Sciatic nerve | (5) |
| 3D) | Elbow joint | (5) |
| 4A) | Brachial artery | (2) |
| 4B) | Femur | (2) |
| 4C) | Buccinator muscle | (2) |
| 4D) | Median cubital vein | (2) |
| 4E) | Femoral sheath | (2) |

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Question Paper

Exam Date & Time: 24-May-2024 (10:00 AM - 12:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

**SECOND SEMESTER B.Sc. (NMT/RT/ MIT/EMT/BPT/BOPT/CVT/CND/RRT & DT/BOT/AOTT/ PHYSICIAN
ASSISTANT/PFT/MLT) DEGREE EXAMINATION - MAY/JUNE 2024
SUBJECT: BIC1201 - BIOCHEMISTRY
(2020/2022 SCHEME)**

Marks: 50

Duration: 120 mins.

Answer all the questions.

- 1) Define gluconeogenesis and write the reactions of gluconeogenesis from pyruvate (10)
- 2) Explain with illustrations the biosynthesis of mature collagen, emphasizing the reactions catalyzed by prolyl hydroxylase, lysyl hydroxylase, and lysyl oxidase. (10)
- 3A) Illustrate the classification of lipoproteins based on their ultracentrifugation properties. Mention the site of synthesis and function for any THREE lipoproteins. (5)
- 3B) Describe in detail the activation of fatty acid and the steps of beta oxidation in mitochondria. (5)
- 3C) Mention the RDA for dietary fibres. Explain FOUR benefits of consuming dietary fibres (5)
- 3D) Mention the RDA, sources and chemical forms of vitamin A. List FOUR features of vitamin A deficiency (5)
- 4A) Mention the normal blood levels of fasting glucose, urea, cholesterol and total bilirubin. (2)
- 4B) Write the normal level of albumin in serum and mention any TWO conditions in which its levels are altered. (2)
- 4C) List FOUR differences between DNA and RNA (2)
- 4D) Write the reaction catalysed by pyruvate dehydrogenase complex indicating the coenzymes required. (2)
- 4E) Define metabolic alkalosis. Mention TWO causes for it. (2)

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Question Paper

Exam Date & Time: 22-May-2024 (10:00 AM - 12:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

**SECOND SEMESTER B.Sc. (NMT/RTT MIT/EMT/BPT/BOPT/CVT/RRT & DT/BOT/AOTT/ PHYSICIAN
ASSISTANT/BPO/PFT/MLT/RESPIRATORY THERAPY) DEGREE EXAMINATION - MAY/JUNE 2024
SUBJECT: PHY1201 - PHYSIOLOGY - II
(2020/2022 SCHEME)**

Marks: 50

Duration: 120 mins.

Answer all the questions.

Write brief, clear and legible answers.

Illustrate your answers with diagrams and flow charts wherever appropriate.

- 1) Name the functional divisions of cerebellum. Enumerate the functions of each lobe of cerebellum. (10)
Add a note on clinical features of cerebellar lesion.
(2+5+3 = 10 marks)
- 2) Describe the actions of growth hormone. Explain the regulation of secretion of growth hormone. Add (10)
a note on the cause and clinical features of gigantism
(4+3+3 = 10 marks)
- 3A) Enumerate any FOUR functions of saliva. Add a note on Xerostomia (5)
(4+1 = 5 marks)
- 3B) Describe the renal tubular reabsorption of glucose. (5)
- 3C) Draw a labeled diagram of the lateral spinothalamic pathway and mention any two sensations (5)
carried by the same.
- 3D) Describe the uterine endometrial changes during menstrual cycle (5)
- 4A) List any TWO clinical features of Parkinson's disease (2)
- 4B) List any TWO properties of receptors (2)
- 4C) Enumerate any TWO functions of gall bladder (2)
- 4D) Define Renal clearance. Mention the substance used for the estimation of GFR (2)
- 4E) List the indicators of ovulation (2)

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Question Paper

Exam Date & Time: 27-May-2024 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND SEMESTER BPT DEGREE EXAMINATION - MAY/JUNE 2024
SUBJECT: PTH1201 - THEORETICAL CONCEPTS IN BASICS OF EXERCISE THERAPY - II
(2020 SCHEME)

Marks: 100

Duration: 180 mins.

Answer all the questions.

- 1) Define Postural Drainage. Outline the techniques aiding postural drainage. Describe in detail the postural drainage for lower lobes of the lung. (20)
(2+8+10 = 20 marks)
- 2) Classify breathing exercises and summarize the effects of breathing exercises. Explain the procedure of performing breathing exercises. (20)
(5+5+10 = 20 marks)
- 3) Explain the methods of promoting general relaxation. (10)
- 4) Explain the types and techniques of suspension therapy. (10)
- 5A) Outline the physiological mechanisms of achieving muscle relaxation. (5)
- 5B) Select any two equipment from therapeutic gymnasium and explain its uses. (5)
- 5C) Explain the principles of passive movements. (5)
- 5D) Explain the types of trick movements with examples. (5)
- 5E) Enumerate the physiological effects of therapeutic massage. (5)
- 5F) Explain the effects and uses of hydrotherapy. (5)
- 6A) Illustrate Bronchopulmonary segments. (2)
- 6B) Define Trick Movements. (2)
- 6C) Outline the effects of pursed lip breathing. (2)
- 6D) List the uses of swiss ball in therapeutic gymnasium. (2)
- 6E) List the passive accessory movements. (2)

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Question Paper

Exam Date & Time: 29-May-2024 (10:00 AM - 12:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND SEMESTER BPT DEGREE EXAMINATION - MAY/JUNE 2024
SUBJECT: PTH1202 - THEORETICAL CONCEPTS IN ELECTROTHERAPY - I
(2020 SCHEME)

Marks: 50

Duration: 120 mins.

Answer all the questions.

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| 1) | Outline the contraindications for shortwave diathermy. Explain the methods of application in short wave diathermy. (4+6 = 10 marks) | (10) |
| 2) | Explain the properties and production of therapeutic ultrasound. What is the water bath method in ultrasound? (7+3 = 10 marks) | (10) |
| 3A) | Explain the physiological and therapeutic effects of Ultraviolet radiation therapy. (3+2 = 5 marks) | (5) |
| 3B) | Outline the indications, contraindications of Infrared radiation therapy. (2+3 = 5 marks) | (5) |
| 3C) | Explain the methods of application in microwave diathermy. | (5) |
| 3D) | Explain the properties and uses of low level LASER therapy. (3+2 = 5 marks) | (5) |
| 4A) | List ANY TWO properties of galvanic current. | (2) |
| 4B) | List ANY TWO indications for extracorporeal shockwave therapy. | (2) |
| 4C) | List the types of ultraviolet radiation therapy. | (2) |
| 4D) | List ANY TWO dangers of therapeutic ultrasound. | (2) |
| 4E) | List ANY TWO properties of shortwave diathermy. | (2) |

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