

Question Paper

Exam Date & Time: 23-Nov-2021 (10:00 AM - 12:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND SEMESTER BPT DEGREE EXAMINATION - NOVEMBER 2021
SUBJECT: BIC 1201 - BIOCHEMISTRY
(2020 SCHEME)

Marks: 50

Duration: 120 mins.

Answer all the questions.

- 1) Write the steps of aerobic glycolysis in detail and calculate its energetics. (10)
2. Describe beta-oxidation of palmitic acid under the following headings:
- 2A) Site and subcellular site. (1)
- 2B) Activation of palmitic acid. (1)
- 2C) Transport of activated palmitic acid. (2)
- 2D) Reactions of beta oxidation. (4)
- 2E) Energetics. (2)

Answer all the questions.

- 3A) Define and classify carbohydrates with **ONE** example for each class. (5)
- 3B) Give FIVE examples of diagnostically important enzymes and mention their diagnostic utility. (5)
- 3C) Describe the synthesis of triacylglycerol. (5)
- 3D) Define BMR. Explain **FOUR** factors affecting BMR in detail. (5)
- 4A) Mention **TWO** differences between kwashiorkor and marasmus. (2)
- 4B) Define transamination reaction of amino acids with **ONE** example. (2)
- 4C) Name the coenzyme form of vitamin B1 and write **ONE** reaction where it is involved. (2)
- 4D) Classify amino acids based on their nutritional requirement with **ONE** example for each class. (2)
- 4E) Define steatorrhea and give TWO causes for it. (2)

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Question Paper

Exam Date & Time: 25-Nov-2021 (10:00 AM - 12:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND SEMESTER BPT DEGREE EXAMINATION - NOVEMBER 2021
SUBJECT: PTH 1202 - THEORETICAL CONCEPTS IN ELECTROTHERAPY - I
(2020 SCHEME)

Marks: 50

Duration: 120 mins.

Answer all the questions.

- 1) Discuss the different methods of electrode application in shortwave diathermy with suitable diagrams. Add a note on the contraindications for SWD. (10)
(6+4 = 10 marks)
- 2) Explain the production and properties of therapeutic ultrasound. Add a note on the precautions during application of ultrasound. (10)
(7+3 = 10 marks)
- 3A) Discuss the physiological and therapeutic effects of microwave diathermy. (5)
(2+3 = 5 marks)
- 3B) Explain the procedure of application of infrared radiation therapy. (5)
- 3C) Explain the dosage calculation and application of Low Level Laser therapy. (5)
- 3D) Discuss the PUVA regime and precautions in ultraviolet radiation therapy. (5)
- 4A) Mention any four therapeutic effects of extra corporeal shock wave therapy. (2)
- 4B) What is the frequency used in Galvanic current? (2)
- 4C) Mention the therapeutic frequency used in short wave diathermy. (2)
- 4D) Name any four non-thermal effects of therapeutic ultrasound. (2)
- 4E) Mention the ultraviolet radiation therapy dose for acne vulgaris. (2)

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