

Question Paper

Exam Date & Time: 01-Mar-2019 (02:00 PM - 05:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

THIRD SEMESTER BPT DEGREE EXAMINATION - FEB/MAR 2019
SUBJECT: BPT 205 - ELECTROTHERAPY - II
(2016 SCHEME)
Friday, March 01, 2019 (14.00 - 17.00)

Marks: 100

Duration: 180 mins.

Answer all the questions.

- 1) Expand LASER. Explain in detail the various types of LASERS, the physiological effects and treatment parameters for any THREE indications. (20)
(2+6+6+6 = 20 marks)
- 2) What is iontophoresis? Mention the indications and effects of various positively and negatively charged ions used for iontophoresis. (20)
(4+6+5+5 = 20 marks)
- 3) Describe why and how the 1st erythema dose (E1) is determined. (10)
(4+6 = 10 marks)
- 4) Explain the physiological and therapeutic effects of ultrasound. (10)
(5+5 = 10 marks)

5. Short Answers:

- 5A) Enumerate the physiological effects of short wave diathermy. (5)
- 5B) Explain the various methods of application of ultrasound. (5)
- 5C) List any FIVE uses of nerve conduction studies. (5)
- 5D) What is the classification for infra-red radiation and mention the indications for infra-red radiations. (5)
(2+3 = 5 marks)
- 5E) What are the dangers of using constant direct current? (5)
- 5F) What is extracorporeal shockwave therapy and give the indications for its use? (5)
(2+3 = 5 marks)

6. Brief Answers:

- 6A) What is Frenzel zone? (2)
- 6B) List down any FOUR photosensitising agents. (2)
- 6C) What is electrotonus? (2)
- 6D) What is the dose to be given when E1 is repeated a second time? (2)
- 6E) Highlight any FOUR differences between pulsed and continuous Ultrasound. (2)

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Question Paper

Exam Date & Time: 26-Feb-2019 (02:00 PM - 04:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

THIRD SEMESTER B.O.T./ B.Sc. P.F.T./ BPT/ B.Sc. C.V.T./B.Sc. R.T./ B.Sc. M.I.T./B.Sc. RRT&DT DEGREE

EXAMINATION - FEB/MAR 2019

**SUBJECT : MICR 201 - MICROBIOLOGY
(2016 SCHEME)**

Tuesday, February 26, 2019 (14.00 - 16.00)

Answer ALL questions:

Marks: 50

Duration: 120 mins.

- 1) Explain the etio-pathogenesis and laboratory diagnosis of pulmonary tuberculosis. (10)
(1+4+5 = 10 marks)
- 2) Explain any THREE mechanisms of autoimmunity. Name TWO autoimmune diseases each involving single and multiple organ or system. (10)
(6+4 = 10 marks)

3. Write short notes on:

- 3A) Laboratory diagnosis of pneumococcal meningitis. (5)
- 3B) Investigation of hospital acquired infections. (5)
- 3C) Etio-pathogenesis of streptococcal skin infections. (5)
- 3D) Laboratory diagnosis of hepatitis B virus infection. (5)

4. Answer the following questions:

- 4A) Name FOUR predisposing factors for urinary tract infections. (2)
- 4B) Name TWO vaccines used for the prevention of poliomyelitis. (2)
- 4C) Write TWO functions of cell mediated immunity. (2)
- 4D) Name TWO disinfectants with their mode of action. (2)
- 4E) List any FOUR organisms causing sexually transmitted diseases. (2)

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