

Question Paper

Exam Date & Time: 18-Apr-2022 (10:00 AM - 12:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

THIRD SEMESTER BPT / BOT / B.Sc. RRT &DT / BAOTT / BSc. RT / BSc. PFT / BSc. MIT / BSc. CVT DEGREE
EXAMINATION - APRIL 2022
SUBJECT: MICR 201 - MICROBIOLOGY
(2016 / 2019 SCHEME)

Marks: 50

Duration: 120 mins.

- 1) Explain the pathogenesis and laboratory diagnosis of enteric fever. (10)
(4+6 = 10 marks)
- 2) Classify sterilization. Explain the working principle and articles sterilized using autoclave. (10)
(4+4+2 = 10 marks)

3. Write short notes on:

- 3A) Components of innate immunity. (5)
- 3B) Pathogenesis of influenza virus. (5)
- 3C) Bacterial cell wall. (5)
- 3D) Laboratory diagnosis of HIV infections. (5)

4. Answer the following:

- 4A) Name TWO parasites causing intestinal infections. (2)
- 4B) Mention TWO bacterial culture methods. (2)
- 4C) List Any TWO bacteria causing meningitis. (2)
- 4D) Name TWO functions of IgM antibody. (2)
- 4E) Classify bacteria based on morphology. (2)

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Question Paper

Exam Date & Time: 19-Apr-2022 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

THIRD SEMESTER BPT DEGREE EXAMINATION - APRIL 2022

SUBJECT: BPT 201 - BIOMECHANICS

(2016 SCHEME)

Marks: 100

Duration: 180 mins.

Answer all the questions.

- 1) Define force couple. Discuss the static and dynamic stabilizers of the Glenohumeral joint. Describe the biceps mechanism. Mention any two pathomechanics of shoulder complex. (20)
(2+12+4+2 = 20 marks)
- 2) Mention and explain the gait variables. Add a note on Determinants of Gait. (20)
(10+10 = 20 marks)
- 3) Describe the motions of the patella. Explain its role in knee joint function. (10)
- 4) Explain the Kinematics of Hip joint. (10)

5. Short answers:

- 5A) Describe the sequence of carpal motion from full flexion to extension of the wrist. (5)
- 5B) What is Q angle? How it is measured. (5)
- 5C) Describe the systems involved in maintaining posture. (5)
- 5D) Explain the kinematics of lumbar spine. (5)
- 5E) Explain the kinematics of inversion and eversion. (5)
- 5F) Explain the role of Cane in hip pain during gait. (5)

6. Brief Answers:

- 6A) What is Trendelenberg gait? (2)
- 6B) List out sacral and pelvic movements. (2)
- 6C) What is Insall and Salvati index. (2)
- 6D) Functions of Thoraco lumbar fascia. (2)
- 6E) Mention the postural changes associated with excessive anterior pelvic tilt. (2)

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Question Paper

Exam Date & Time: 20-Apr-2022 (10:00 AM - 12:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

THIRD SEMESTER BPT / BOT / BSc. MIT / BRTT / BSc. RRT & DT / BAOTT / BSc. RT / BSc. PFT / BSc. CVT DEGREE
EXAMINATION - APRIL 2022
SUBJECT: PATH 201 - PATHOLOGY
(2016 /2016 RV/ 2019 SCHEME)

Marks: 50

Duration: 120 mins.

Answer all the questions.

- 1A) Define and classify hypertension. Describe the effects of hypertension on various organs. (5)
(2+3 = 5 marks)
- 1B) Describe the causes and clinical features of cardiac failure. (5)
- 2A) Define anaemia. Describe the aetiology and clinical features of megaloblastic anaemia. (5)
(1+4 = 5 marks)
- 2B) Describe the clinical features, blood picture and chromosomal abnormality of chronic myeloid leukaemia. (5)
(2+2+1 = 5 marks)

3. Write short notes on:

- 3A) Fracture healing. (5)
- 3B) Cerebrovascular disease. (5)
- 3C) Differences between benign and malignant tumours with examples. (5)
- 3D) Bronchial asthma. (5)

4. List the following:

- 4A) Cellular events of acute inflammation. (2)
- 4B) The fate of a thrombus. (2)
- 4C) The types of necrosis. (2)
- 4D) Any two types of jaundice with examples. (2)
- 4E) Two examples each of nephritic and nephrotic syndrome. (2)

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