

Question Paper

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



MANIPAL ACADEMY OF HIGHER EDUCATION

THIRD SEMESTER B.Sc. M.I.T. / BACHELOR OF OPTOMETRY DEGREE EXAMINATION - APRIL 2022

SUBJECT: MCB2101 - MICROBIOLOGY

(2020 SCHEME)

Answer ALL questions.

Draw diagrams wherever necessary.

Marks: 50

Duration: 120 mins.

Answer all the questions.

- 1) With a neat labelled diagram explain the bacterial cell structure. (10)
(5+5 = 10 marks)
- 2) Define and classify immunity. Write in detail the mechanisms of innate immunity. (10)
(1+2+7 = 10 marks)

3. Write short notes on:

- 3A) Cultivation of viruses (5)
- 3B) Mechanism of Anaphylaxis (5)
- 3C) ELISA (5)
- 3D) Cell mediated immune response (5)

4. Answer the following:

- 4A) Write any TWO important contributions of Louis Pasteur (2)
- 4B) Enumerate any TWO disinfectants (2)
- 4C) Write any TWO modes of transmission of infection (2)
- 4D) List any TWO enriched media (2)
- 4E) Classify fungi 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 B.Sc. MEDICAL IMAGING TECHNOLOGY DEGREE EXAMINATION - APRIL 2022
SUBJECT: MIT 2102 - RADIOGRAPHIC SPECIAL PROCEDURES
(2020 SCHEME)

Marks: 100

Duration: 180 mins.

Answer all the questions.

- 1) Illustrate in detail the anatomy of the female reproductive system. Describe the preparation, procedure and filming techniques done to evaluate the uterine cavity and fallopian tube. (20)
- 2) Discuss in detail the adverse effects of water soluble contrast media and its management. (20)
- 3) What is small bowel enema? Explain the indication, equipment, preparation, technique and filming for single contrast procedure. (10)
- 4) Discuss an alternative procedure to evaluate the renal pelvis and ureter in patient who cannot receive intravenous contrast medium. (10)
- 5A) Filming techniques for submandibular sialography. (5)
- 5B) List out the patient preparation required for barium meal. (5)
- 5C) Biphasic study of upper GIT. (5)
- 5D) Outline procedure to perform high dose urography. (5)
- 5E) Barium swallow for hiatus hernia. (5)
- 5F) Outline the characteristics of Iohexol. (5)
- 6A) Compare Micturating cystourethrography and ascending urethrogram. (2)
- 6B) List out the use of air/water during contrast GIT studies. (2)
- 6C) Indication for cerebral angiography. (2)
- 6D) Illustrate catheters used for aortogram. (2)
- 6E) Outline filming technique for pyriform fossa. (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 BOT / BPT / BSc. MIT / BSc. RRT & DT / BAOTT / BSc. PFT / BSc. CVT / BSc. EMT / BSc. RT
DEGREE EXAMINATION - APRIL 2022
SUBJECT: PAT 2103 - PATHOLOGY
(2020 SCHEME)

Marks: 50

Duration: 120 mins.

Answer all the questions.

Draw diagrams wherever necessary.

- 1A) Define shock. List the types of shock. (4)
(2+2 = 4 marks)
- 1B) Describe the pathogenesis of shock caused by bacterial infection. (6)
- 2A) Define fracture. (2)
- 2B) Describe the process of fracture healing. List the factors influencing fracture repair. (8)
(5+3 = 8 marks)
- 3A) List two causes and describe morphology of a granuloma with a diagram. (5)
- 3B) Describe the basic laboratory investigations and clinical features of hemophilia. (5)
- 3C) Describe the predisposing factors and complications of atherosclerosis. (5)
- 3D) Describe etiology and clinical features of bronchiectasis. (5)
- 4A) Define atrophy and give two examples. (2)
- 4B) Define inflammation. Give an example each for acute and chronic inflammation. (2)
- 4C) Define neoplasia. Give two examples of benign tumors. (2)
- 4D) Mention the etiology and mode of transmission of tuberculosis. (2)
- 4E) Define karyotyping. Name one syndrome due to chromosomal abnormality. (2)

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