

Question Paper

Exam Date & Time: 10-Dec-2021 (02:30 PM - 04:30 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

THIRD SEMESTER B.Sc. M. I. T. / BACHELOR OF OPTOMETRY DEGREE EXAMINATION - DECEMBER 2021
SUBJECT: MCB2101 - MICROBIOLOGY
(2020 SCHEME)

Answer all the questions.
Draw diagrams wherever necessary.

Marks: 50

Duration: 120 mins.

- 1) Classify the methods of sterilization. Describe moist heat sterilization by autoclave and list any two uses of autoclave. (10)
(3+5+2 = 10 marks)
- 2) Define and classify immunity. Explain Innate immunity. (10)
(2+3+5 = 10 marks)

3. Write on short notes on:

- 3A) Bacterial growth curve. (5)
- 3B) Bacterial flagella. (5)
- 3C) Diagnosis of viral diseases. (5)
- 3D) Type IV Hypersensitivity. (5)

4. Answer the following:

- 4A) Any two contributions of Robert Koch. (2)
- 4B) Sources of infection. (2)
- 4C) List two types of vaccines with examples. (2)
- 4D) Morphological classification of fungi. (2)
- 4E) List four types of culture media. (2)

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Question Paper

Exam Date & Time: 13-Dec-2021 (02:30 PM - 04:30 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

THIRD SEMESTER BOT / BPT / BSc. MIT / BSc. RRT & DT / BAOTT / BSc. PFT / BSc. CVT / BSc. EMT / BSc. RT / B.Sc.
RTT DEGREE EXAMINATION - DECEMBER 2021
SUBJECT: PAT 2103 - PATHOLOGY
(2020 SCHEME)

Marks: 50

Duration: 120 mins.

Answer all the questions.

Draw diagrams wherever necessary.

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|-----|---|-----|
| 1A) | Describe the events in wound healing by primary intention with diagrams. | (6) |
| 1B) | Explain the factors that influence wound healing. | (4) |
| 2A) | Define anemia. Classify anemia based on etiology.
(1+2 = 3 marks) | (3) |
| 2B) | Describe clinical features, etiology and basic laboratory investigations for iron deficiency anemia.
(2+2+3 = 7 marks) | (7) |
| 3A) | Describe four cardinal signs and list two causes of acute inflammation. | (5) |
| 3B) | Mention five differences between benign and malignant tumors. | (5) |
| 3C) | Describe the morphology of primary, secondary and miliary tuberculosis. | (5) |
| 3D) | Describe the pathogenesis and list two causes of hypovolemic shock. | (5) |
| 4A) | Define metaplasia. Give an example. | (2) |
| 4B) | List four causes of thrombocytopenia. | (2) |
| 4C) | Define aneurysm and mention the types of aneurysm. | (2) |
| 4D) | Mention any four clinical features of hyperthyroidism. | (2) |
| 4E) | List the modes of transmission of Hepatitis B. | (2) |

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Question Paper

Exam Date & Time: 17-Dec-2021 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

THIRD SEMESTER B.Sc. MEDICAL IMAGING TECHNOLOGY DEGREE EXAMINATION - DECEMBER 2021
SUBJECT: MIT2102 - RADIOGRAPHIC SPECIAL PROCEDURES
(2020 SCHEME)

Marks: 100

Duration: 180 mins.

Answer all the questions.

- 1) Illustrate in detail the anatomy of the urinary system. Describe the preparation, procedure and filming techniques done to evaluate the upper urinary tract. (20)
- 2) Explain the various water soluble contrast media and discuss in detail toxicity related to water soluble contrast media. (20)
- 3) Discuss in detail the radiological procedure done to manage cornual end blocks. (10)
- 4) What is seldinger technique? Add a note on its complications. (10)
- 5A) Filming techniques in parotid sialography. (5)
- 5B) List out the patient preparation required for angiography. (5)
- 5C) List out methods to improve peristalsis for Barium studies. (5)
- 5D) Outline procedure to perform colostomy enema. (5)
- 5E) Swallow Study for Tracheo-oesophageal fistula. (5)
- 5F) Outline the pre-medications required for anaphylactic individuals. (5)
- 6A) Management of adverse skin reaction due to contrast media. (2)
- 6B) List out the various negative contrast media used in fluoroscopy. (2)
- 6C) Compare enteroclysis and BMFT. (2)
- 6D) Illustrate catheters used for coronary angiography. (2)
- 6E) List out two disadvantages using canula for hysterosalpingography. (2)

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