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### MANIPAL ACADEMY OF HIGHER EDUCATION

## FIRST SEMESTER M.Sc. FORENSIC SCIENCE DEGREE EXAMINATION – FEBRUARY 2022 SUBJECT: MFS 607 – FORENSIC PHOTOGRAPHY

Thursday, February 24, 2022

Time: 14:00 - 16:30 Hrs.

Maximum Marks: 50

- Answer ALL the questions.
- Draw diagrams wherever necessary.
- ∠ Long Answer Questions:
- 1A. Define Forensic photography
- 1B. Comment on different types of photography
- 1C. Discuss the techniques of capturing crime scene photography

(1+3+6 = 10 marks)

2. Explain the concept of metering with reference to exposure compensation. Comment on the types of metering options used in crime scene photography.

(10 marks)

- 3. Write short notes on:
- 3A. IR photography in forensic work
- 3B. Micro and Macro photography
- 3C. Focusing points in professional cameras
- 3D. Conventional photography
- 3E. Analog and IP cameras
- 3F. Structure of professional camera

 $(5 \text{ marks} \times 6 = 30 \text{ marks})$ 

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# MANIPAL ACADEMY OF HIGHER EDUCATION FIRST SEMESTER M.Sc. FORENSIC SCIENCE DEGREE EXAMINATION - FEBRUARY 2022 SUBJECT: MFS 601 - BASICS OF FORENSIC SCIENCE

Monday, February 21, 2022

Time: 14:00 - 16:30 Hrs.

Maximum Marks: 50

- Answer ALL the questions.
- Z Long Answer Questions:
- 1. Write a note on identification of a person from the skeletal remains.

(10 marks)

2. Write a note on forensic analysis of voice sample.

(10 marks)

- 3. Write short notes on:
- 3A. PCR and RFLP
- 3B. Morphology of Hair
- 3C. Identification of person from footprints
- 3D. Importance of skid marks in hit and run cases
- 3E. Analysis of fibre evidence
- 3F. Glass fractures

 $(5 \text{ marks} \times 6 = 30 \text{ marks})$ 

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#### MANIPAL ACADEMY OF HIGHER EDUCATION

FIRST SEMESTER M.Sc. FORENSIC SCIENCE DEGREE EXAMINATION – FEBRUARY 2022 SUBJECT: MFS 603 – APPLIED FORENSIC SCIENCE AND CRIMINAL INVESTIGATION

Tuesday, February 22, 2022

Time: 14:00 – 16:30 Hrs.

Maximum Marks: 50

- Answer ALL the questions.
- ∠ Long Answer Questions:
- 1. Write a note on laboratory examination of semen and saliva.

(10 marks)

2. Explain the process of bail in India with suitable illustrations.

(10 marks)

- 3. Write short notes on:
- 3A. Protocols for collecting handwriting standards.
- 3B. Whorl type of fingerprints
- 3C. Role of media in criminal justice system
- 3D. Need for standardization of laboratories
- 3E. Examination of erasures in documents
- 3F. Method of collecting specimen fingerprints from living and dead person

 $(5 \text{ marks} \times 6 = 30 \text{ marks})$ 

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#### MANIPAL ACADEMY OF HIGHER EDUCATION

## FIRST SEMESTER M.Sc. FORENSIC SCIENCE DEGREE EXAMINATION – FEBRUARY 2022 SUBJECT: MFS 605 – BIOCHEMISTRY

Wednesday, February 23, 2022

Time: 14:00 – 16:30 Hrs.

Maximum Marks: 50

- Answer the following in detail.
- 1. Explain the factors affecting calcium homeostasis. List the metabolic functions of calcium.

(6+4 = 10 marks)

2A. Describe the process of translation. Add a note on any TWO post-translational modification.

(5+2 = 7 marks)

2B. Write any TWO inhibitors and their mechanism of action

(3 marks)

- 3. Answer all the followings:
- 3A. Explain blood glucose regulation

(5 marks)

3B. Functions and types of lipoproteins

(5 marks)

3C. Give an account of kwashiorkor and marasmus

 $(2\frac{1}{2} + 2\frac{1}{2} = 5 \text{ marks})$ 

3D. Write the structure and functions of mRNA, tRNA and rRNA

(5 marks)

3E. Write a note on the general structure of immunoglobulins

(5 marks)

3F. Define Km. Write its importance

(5 marks)