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Total No. of Printed Pages: 2

Enrollment No.....



Faculty of Science
End Sem Examination Dec-2023

FS3EL01 Forensic Physics

Programme: B.Sc. (Hons.)

Branch/Specialisation: Forensic
Science

Duration: 3 Hrs.

Maximum Marks: 60

Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1 (MCQs) should be written in full instead of only a, b, c or d. Assume suitable data if necessary. Notations and symbols have their usual meaning.

- Q.1 i. The most important instrument for comparison is- **1**
(a) Microscope (b) Gas chromatography
(c) Magnify glass (d) None of these
- ii. Father of microscopy is- **1**
(a) Antoni Van Leeuwenhoek
(b) Robert Hook
(c) Lewis
(d) None of these
- iii. What is the main ingredient in ordinary glass? **1**
(a) Soda (b) Lime
(c) Metal oxides (d) Sand
- iv. Wind glass of automobile is composed of- **1**
(a) Borosilicate glass (b) Ordinary glass
(c) Tempered glass (d) Fused-silica glass
- v. Forensic pedology is- **1**
(a) Scientific study of glass (b) Scientific study of soil
(c) Scientific study of paint (d) Scientific study of cement
- vi. Soil sample when moistened with few drops of water and concentrated HCL gives yellow colour due to the presence of- **1**
(a) Lime (b) Aluminum
(c) Zinc (d) Iron
- vii. Enamel acrylic paints are recommended to have a _____ coat **1**
before its application?
(a) Base coat of TiO_2 (b) Top coat
(c) Cement coat (d) Primer coat

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- viii. The pore Size of the sieve used in cement examination is- **1**
(a) 90 micro meters (b) 91 micro meters
(c) 92 micro meters (d) 93 micro meters
- ix. Which one of the fibre is not the protein fibre? **1**
(a) Wool (b) Rayon (c) Silk (d) Fur
- x. Linen fibre possesses- **1**
(a) Twist (b) Medulla
(c) Nodes (d) Hollow tube in center
- Q.2 i. Define forensic physics. **2**
ii. Discuss working principle of microscope. Write its forensic application. **3**
iii. What is spectroscopic machine? Give some Examples. Write forensic application of it. **5**
- OR iv. Write a note on stereomicroscope. Write its forensic application. **5**
- Q.3 i. Define glass. Give its types. **2**
ii. What is glass fracture? Define its types. **8**
- OR iii. What are the different analytical approaches of glass? Explain them briefly. **8**
- Q.4 i. Write about the various types of soil. **3**
ii. Write about all the examination process employed to test the soil. **7**
- OR iii. Write about the various components used in cement and their functions. **7**
- Q.5 i. Define paint with its forensic significance. **4**
ii. Discuss mortar and concrete analysis. **6**
- OR iii. Write about the physical examination employed to test the cement samples. **6**
- Q.6 Attempt any two: **5**
i. What is fibre? Discuss classification of fibre. **5**
ii. Write differences between natural fibre and man-made fibre. **5**
iii. Write about physical examination employed for fibre analysis. **5**

P.T.O.