

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI-86
(For candidates admitted during the academic year 2011 –12 & thereafter)

SUBJECT CODE: 11CH/UI/FC23

B.A./B.Sc./B.Com. / B.V.A./ B.C.A. / B.S.W. DEGREE EXAMINATION
NOVEMBER 2014

REG.NO

COURSE : INDEPENDENT ELECTIVE

PAPER : FORENSIC CHEMISTRY

TIME : 30 MINUTES

MAX.MARKS : 30

SECTION – A

(30x1=30)

ANSWER ON THE QUESTION PAPER ITSELF.

Answer all the questions.

I Choose the correct answer:

1. A detective dye used in Forensic science is
a. Phenolphthalein b. Bromocresol c. Thymolblue d. Malachite green
2. TNT is an example for -----explosive.
a. water b. military c. nuclear d. aerosol
3. Inorganic poison is -----.
a. Carbon monoxide b. chloroform c. Oxygen d. Opium
4. Arson is -----fire.
a. accidental b. intentional c. sabotage d. none of the above
5. The property used as a trace evidence for glass.
a. refractive index b. colour c. texture d. viscosity
6. Blood is traced by ----- technique.
a. DNA profiling b. forensic odontology c. forensic photography d. Holography

II State true or False:

7. Finger print of twins is identical.
8. Arson is malicious fire.
9. Forensic scientists do not need to know anything about the rules of law since that is an area reserved only for students of the law.
10. Blood grouping help in the identity of a person who have committed the crime.
11. Digital signature is called electronic signature.
12. Thallium is a suspected human carcinogen.
13. Neutron Radiography is used in crime detection.
14. Tracing is a type of forgery.

15. IR is used in black money detection.
16. The anticoagulant added to liquid blood is sodium citrate.
17. X rays are used in detecting genuine coins.
18. Speed detection devices are yet to be introduced in India.

III Answer in one or two sentences:

19. Mention any two source material for DNA profiling.
20. Give the symptoms of arsenic poisoning.
21. Define Forensic photography.
22. Give the significance of foot prints as physical evidence.
23. List the primary duties of a forensic expert in a court of law.
24. Give the trace evidence for soil.
25. Expand IED.
26. Define Forensic science.
27. Name an inflammable organic liquid.
28. Mention the applications of IR rays in crime detection.
29. Give any two biological evidences.
30. How can one prevent virus attacks on the computer?

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TIME : 2½ HOURS

MAX. MARKS: 70

SECTION - B

Answer any FIVE questions:

(5x 6 = 30)

1. What is physical evidence? How are they classified?
2. Give the symptoms and antidote for the following poisoning.
i) CO ii) barbiturates iii) Cyanide
3. What is trace evidence? How do blood act as trace evidence? Explain in detail.
4. What is the purpose of forensic Chemistry?
5. How are explosives classified?
6. What is the need of a fire scene investigation?
7. How will you identify the malpractices in Documentation?

SECTION - C

Answer any TWO questions:

(2x 20 = 40)

8. a) What are the characteristics of accidental fire?
b) How does alcohol work as a toxin in the human body?
c) Discuss the use of UV, IR and X-rays in crime detection. (6+8+6)
9. a) Give the forensic significance of body fluids such as saliva, semen and sweat.
b) Explain the mode of action of (i) CO (ii) HCN (iii) alcohol as poisons.
c) Discuss the scientific methods used in crime investigation. (8+6+6)
10. a) What is trace evidence? How do glass, soil and paint act as trace evidence?
Explain in detail.
b) Write short notes on DNA profiling
c) How is a crime scene processed? (8+6+6)
11. a) What is the relevance of forensic finger printing?
b) Explain briefly on Internet hacking and software piracy.
c) How is forgery in hand written and typed documents detected? (6+6+8)
