

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI-86
(For candidates admitted during the academic year 2015-16)

SUBJECT CODE: 15CH/PI/IF24

B.Sc. DEGREE EXAMINATION, APRIL 2018
BRANCH IV- CHEMISTRY
SECOND SEMESTER

REG.NO

COURSE.: INDEPENDENT ELECTIVE

PAPER : INTRODUCTION TO FORENSIC SCIENCE

TIME : 30 MINUTES

MAX.MARKS: 30

(30x1=30)

SECTION – A

ANSWER ON THE QUESTION PAPER ITSELF:

Answer all the questions:

I Choose the correct answer the following:

1. Identify the Inorganic poison
a.CO b.chloroform c.cannabis serum d.opium
2. TNT is an example for -----explosive
a. water b. military c. nuclear d. aerosol
3. pH of blood is
a. 6 b. 7 c. 7.4 d. 8.2
4. The detective dye used is
a. Phenolphthalein b. Bromocresol c. Thymolblue d. Malachite green
5. Forensic odontology concentrates on which body part?
a.Skull b.torso c.teeth d.feet
6. Holography uses -----in taking photographs..
a. laser b.UV c.IR d. Visible
7. Most common pattern fingerprint is _____
a. Whorls b. Loops c. Composite d. Arches
8. Which statement about forensic chemists is false?
a. Forensic chemists usually work on small quantities of material.
b. Forensic chemists work alone to solve crime
c. A forensic chemist may be employed by a government agency or private enterprise.
d. Forensic chemists use a wide variety of analytical techniques
9. The majority of forensic chemists work in
a. Police stations b. Hospitals c. courts d. labs
10. Arson is -----fire
a. accidental b. intentional c. sabotage d. none of the above

II Fill in the blank

11. A study of relationships between organisms and their environment is -----
12. RDX is an example for -----explosive
13. The antidote for Arsenic poisoning is -----.
14. Counterfeit currency is detected using -----radiations.
15. Paternity of an offender to a crime is matched with -----.

III State whether the following statements are true or false.

16. Forensic odontology concentrates on the teeth of a person
17. Finger print of twins is identical
18. Cut and paste is a type of forgery.
19. Blood grouping help in the identity of a person who have committed the crime.
20. Speed detection devices are commonly used in our country.

IV Match the following

- | | |
|---------------------------------|--------------------|
| 21. DNA profiling | Poison |
| 22. IED | Firearm residues |
| 23. Neutron activation Analysis | Currency |
| 24. Antidote | DNA fingerprinting |
| 25. UV rays | Detonation |

V Answer in a line or two

26. Define Forensic photography
27. Give the antidote for Lead poisoning
28. List the primary duties of a forensic expert in a court of law
29. Mention the applications of IR rays in crime detection
30. Give the trace evidence for glass.

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SECTION – B

5X6=30

Answer any five questions.

1. What are the functions of forensic Laboratory?
2. Explain the mode of action of i.CO ii.HCN iii alcohol as poisons
3. What is physical evidence? How are they classified?
4. What are the characteristics of accidental fire?
5. How are explosives classified? Give suitable examples
6. Give the forensic significance of body fluids such as saliva, semen and sweat?
7. How is forgery in hand written and typed documents detected?

SECTION – C

2X20=40

Answer any two questions.

8. a) Discuss the scientific methods used in crime investigation
b) What is the significance of finger prints, foot prints and palm prints? (10+10)
9. a) Write short notes on DNA profiling. Discuss its application as physical evidence to detect crime
b) What is trace evidence? How do glass, soil and paint act as trace evidence?
Explain in detail (10+10)
10. a) Discuss the organization of a Forensic Science laboratory
b) How is a crime scene processed? (10+10)
