

FORENSIC CHEMISTRY

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer:

1. Solvent used for dewaxing of petroleum product are
 - (a) Furfural
 - (b) Methyl ethyl ketone
 - (c) Butane
 - (d) Gasoline

2. When crude oil is heated, which of the following hydrocarbon is given off first?
 - (a) Kerosene
 - (b) Gasoline
 - (c) Paraffin
 - (d) Natural gas

3. Toddy is prepared from sweet juice tapped from
 - (a) Stem
 - (b) Inflorescence
 - (c) Root
 - (d) Maize

4. Alcohol not metabolized is changed into
 - (a) Butanol
 - (b) Butyric acid
 - (c) Acetic acid
 - (d) Acetaldehyde

5. Opiate narcotic is
- (a) Amphetamine (b) Morphine
(c) LSD (d) Barbiturate
6. Which of the following is narcotic?
- (a) Charas (b) Bhang
(c) Ganja (d) Heroin
7. The eluant filled in the closed jar is
- (a) Mixture of gases
(b) Mixture of liquid and gas
(c) Mixture of solid
(d) Mixture of liquid
8. Which method is used for liquid samples in gas chromatography?
- (a) Gas tight syringe
(b) Micro syringe
(c) Rotatory sample valve
(d) Solid injection syringe
9. Which explosive is known as Octogen?
- (a) RDX (b) HMX
(c) Semtex (d) Black powder

10. Which explosives is known as "magic marble" of Pardubice?

- (a) ANFO (b) TNT
(c) Semtex (d) RDX

SECTION B — (5 × 7 = 35 marks)

Answer ALL questions, choosing either (a) or (b).

11. (a) Analyze the petroleum products in forensic exhibits.

Or

(b) Discuss the adulteration detection in petroleum products.

12. (a) Explain Alcoholic Beverages.

Or

(b) Write about hallucinogens and stimulants.

13. (a) Explain tests of narcotic drugs.

Or

(b) Explain Licit and Illicit liquors.

14. (a) Compare the low explosives and high explosives.

Or

(b) Explain military explosives.

15. (a) Write the synthesis and characteristics of PETN.

Or

- (b) Give a detail about searching scene of explosion.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Explain petroleum distillation and fractionation.
17. Write a detailed note on anabolic steroids.
18. Explain detection and determination of methanol.
19. Explain homemade explosives.
20. Discuss bomb scene management.
-