

PARUL UNIVERSITY
FACULTY OF APPLIED SCIENCE
M.Sc. Summer 2018-19 Examination

Semester: 2
Subject Code: 11207151
Subject Name: Forensic Chemistry

Date: 01/04/2019
Time: 10:30 am to 01:00 pm
Total Marks: 60

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

- Q.1. A) Essay type/ Brief note (4x2) (Each of 04 marks) (08)**
 (a) Describe analysis of petroleum products by GC instruments.
 (b) Explain the distillation technique for petroleum product.
- Q.1. B) Answer the following questions (Any two) (04)**
 (a) Short note(Each of 02 marks)
 1. Define forensic chemistry.
 2. Methyl Parathion is pesticides.
 (b) Short note on IED's (04)
 (c) Short note on consumer items such as gold (04)
- Q.2. A) Answer the following questions. (04)**
 (a) Fill in the blanks. (Each of 02 marks)
 1. Kerosene normally boils in the range of.....
 2. Give the chemical test for SO_4^-
 (b) Short note on tobacco and their forensic significance. (04)
- Q.2. B) Answer the following questions (Any two) (03)**
 (a) Multiple choice questions. (Each of 01 marks)
 1. What is country made liquor?
 2. Give chemical test for Ethanol.
 3. In Kerosene, Oil blue dyed λ max is
 (a) 645 nm-650 nm (b) 645 nm- 660 nm (c) 645 nm-670 nm (d) none of the above.
 (b) Short note on chemical fertilizers. (03)
 (c) Short note on Analysis of fire debris. (03)
- Q.3. A) Essay type/ Brief note (4x2) (Each of 04 marks) (08)**
 (a) Write a note on collection and preservation of arson evidence.
 (b) Examination of explosive residue by using any instrumentation technique.
- Q.3. B) Answer the following questions (Any two) (04)**
 (a) Short note/ Brief note (2x2)/ Schematically label the figures (2x2) (Each of 02 marks) (04)
 1. What are organophosphorous pesticides give with example.
 2. Explain the composition of gun powder.
 (b) Short note on analysis of alcohol by GC instrument. (04)
 (c) Short note on post-flashover burning. (04)
- Q.4. A) Answer the following questions. (04)**
 (a) Short note/ Brief note (2x2) (Each of 02 marks) (04)
 1. Explain the searching method of the fir scene.
 2. Give the formula of % of Blood alcohol?
 (b) Short note on analysis of adulteration of petroleum products. (04)
- Q.4. B) Answer the following questions (Any two) (03)**
 (a) Short note/ Multiple choice questions. (Each of 01 marks) (03)
 1. What is smoke point of kerosene?
 2. Give chemical test for nitrate ring test.
 3. The flash point of typical standard diesel is..... °C.
 (b) Explain the classification of high explosive with example. (03)
 (c) Short note on analysis of diesel by TLC. (03)