2019

B.Sc.

## 4th Semester Examination

# **CHEMISTRY (Honours)**

#### Paper - SEC-2P

### [Practical]

Full Marks: 15 Time: 3 Hours

The figures in the margin indicate full marks. Candidates are required to give their answers in their own words as far as practicable.

- 1. Estimate the total amount of Ca<sup>2+</sup> ion and Mg<sup>2+</sup> ion present in the given sample. (g/l).
- 2. Laboratory Note Book 2
- 3. Viva-voce 3

#### (Cosmetics and Perfumes)

1. Answer any one question.

 $1 \times 10 = 10$ 

(a) Prepare compound 'X' using the following ingredients:

		<u>Parts</u>	
1. Mineral oil	**********	28	
2. Olive oil	******	4.5	
3. Lanolin	*********	12.5	
4. Stearic acid	********	04	
5. Spermaceti		6.5	
6. Cetyl alcohol		12.5	
7. Triethanolamine	•••••	11	
8. Water	•••••	40	
9. Preservative	*******	01	
10. Perfume			
Procedure :			

#### Procedure:

Beaker - 1: Heat water with triethanolamine at 70°C.

Beaker - 2: Heat first six ingredients together at 70°C.

Mix the contents of beaker 1 to the beaker 2 with continuous stirring until mixture cools to 50°C then add preservative followed by perfume. Then compound 'X' is obtained.

(b) Prepare compound 'Y' using following ingredients: 10

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		<u>%</u>	
1. Nitro cellulose	•••••	15	
2. Butyl acetate		34	
3. Toluene		30	
4. Resin	•••••	7	
5. Camphor		3	
6. Benzophenone	*****	0.5	
7. Perfume	*****	0.5	
8. Plasticizer	••••	5	
9. Colour	••••	5	

**Procedure**: All the diluent are mix with 70% of the solvent and then nitrocellulose is added followed by rest of the solvent. After mixing plasticizer and resin is added respectively. Mixing is continued for 1 hr. The pigment clips is added to the clear lacquer and mixing is continued.

Compound 'Y' is formed.

2.	Laboratory Note Book	2
3.	Viva - voce	3