UG/4th Sem/CHEM/19(Pr.)

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^{2+} ion and Mg^{2+} ion present in the given sample. (g/l). 10

2. Laboratory Note Book 2

3. Viva-voce 3

[Turn Over]

(Cosmetics and Perfumes)

1. Answer any *one* question. 1×10=10

(a) Prepare compound 'X' using the following ingredients : 10

		Parts
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 :

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

		%
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

[Turn Over]

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