

Scheme of Evaluation (With effect from 2018-19 CBCS Scheme)

Course: **Engineering Chemistry Lab**

Code: **18CHEL16/26**

| Descriptions | Maximum: 100 Marks | Part A: 50 marks | Part B: 50 marks |
|-----------------------------------|-----------------------|---------------------|---------------------|
| Procedure write-up | 15 | 08 | 07 |
| Conduction | 52 | 26 | 26 |
| Calculation, Graph works & Result | 18 | 09 | 09 |
| Viva-voce | 15 | 07 | 08 |

| Part-A: INSTRUMENTAL | | | | | | Part-B: VOLUMETRY | |
|----------------------------------------------------------|-------|----------------------------------------------------------------------------------|-------|----------------------------------------|-------|------------------------------------------------------------------------------------------------------------|-------|
| Potentiometry, Colorimetry and Flame Photometry | | pKa & Viscosity | | Conductometry | | Total Hardness, CaO in cement, Cu in Brass, COD, Fe in haematite and Chlorine in bleaching powder | |
| Error (cc) | Marks | Error (%) | Marks | Error (cc) | Marks | Error (cc) | Marks |
| ± 0.50 | 26 | ± 5.0 | 26 | ± 0.50 | 13+13 | ± 0.2 | 13+13 |
| ± 0.51-0.60 | 22 | ± 5.1-6.0 | 22 | ± 0.51-0.60 | 11+11 | ± 0.3 | 11+11 |
| ± 0.61-0.70 | 18 | ± 6.1-7.0 | 18 | ± 0.61-0.70 | 9+9 | ± 0.4 | 9+9 |
| ± 0.71-0.80 | 14 | ± 7.1-8.0 | 14 | ± 0.71-0.80 | 7+7 | ± 0.5 | 7+7 |
| ± 0.81-1.0 | 10 | ± 8.1-10.0 | 10 | ± 0.81-1.0 | 5+5 | ± 0.6 | 5+5 |
| >± 1.0 | Zero | >± 10 | Zero | >± 1.0 | Zero | >± 0.6 | Zero |
| Graph: 5 marks Calculation: 4 marks | | pKa: Two graphs 5 + 4 marks & Viscosity: Calculation : 9 marks | | Graph: 5 marks Calculation: 4 marks | | | |

Instructions to the Examiners:

1. A different experiment should be set under Part-B for each batch in a day.
2. Under no circumstances, same experiment shall be set for more than three candidates in a batch under Part-A.
3. Allotment of Part-A experiments to the students shall be strictly by the lot system.
4. A change of experiment can be permitted for only one time under Part-A, strictly by lot system subject to the condition of deduction of 15 (**fifteen**) marks under Part-A only.
5. Supplement (with question paper slip) and main answer sheet should be issued to the students in the beginning.
6. In the first ten minutes, students should write the outline of the procedure of the experiments to be performed of both Part-A and Part-B in Main answer sheet only and hand over the same back to the examiner.
7. Procedure of the experiment/s should not be provided to the students during examination under any circumstances.
8. Students shall be permitted to perform maximum three titrations under Part-B.
9. **Overwritten values should not be considered for valuation.**
10. Examiner should observe and put initial for the readings of the experiments.
11. Weight of the substance under Part-B should be different for all the students and weight of the substance should be given to the students only after confirming the initials for all the three titre values.
12. Blank titre value for the COD experiment under Part-B should be given to the students by examiner.