

B.Sc. DEGREE EXAMINATION, APRIL 2019
I Year II Semester
General Chemistry- IV

Time : 3 Hours

Max.marks :60

Section A ($10 \times 1 = 10$) Marks

Answer any **TEN** questions

1. Mention the types of systems.
2. Give an example for irreversible process.
3. State 1st law of thermodynamics.
4. Provide mathematical statement for the term enthalpy 'H'.
5. What do you understand by the term bond dissociation energy?
6. Differentiate between reversible and irreversible process.
7. Lipids include fats and oil. Is it true or false?
8. Offer one application for detergent.
9. Bring out the types of soap.
10. What is meant by saponification number?
11. Of the three ($C=C$, $C-C$ & $C\equiv C$) which will have greater dissociation energy?
12. Write the types of thermodynamic process.

Section B ($5 \times 4 = 20$) Marks

Answer any **FIVE** questions

13. Propose a description for intensive and extensive property.
14. Correlate between heat and work.
15. Explain Zeroth law of thermodynamics.
16. Give an account of the analysis of oil.
17. Define the following terms: acid number and Reichert-Meissl number.
18. Write a note on raw materials and the steps involved in the manufacture of soap.
19. Explain the method involved in the determination of iodine value of oil.

Section C ($3 \times 10 = 30$) Marks

Answer any **THREE** questions

20. Write a note on isothermal and adiabatic process.
21. Arrive at the relationship $C_p - C_v = R$
22. Derive Kirchoff's equation.
23. Explain the various steps involved in the extraction and refining of oil.
24. Define the term detergent. Mention its classification and the steps involved in its manufacture.

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