

**B.Sc. DEGREE EXAMINATION, APRIL 2019**  
**I Year I Semester**  
**General Chemistry- VI**

**Time : 3 Hours**

**Max.marks :60**

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

Answer any **TEN** questions

1. Provide an example for Perkin reaction.
2. Trifluoroacetic acid is more acidic than acetic acid. Why?
3. How an ether can be prepared by Williamson ether synthesis?
4. What will be formed when diethyl ether reacts with dilute sulphuric acid under pressure?
5. Grignard reagent gives hydrocarbon on reaction with water. Is it true or false?
6. Offer an example for organolead compound.
7. Give two examples for common food adulterants.
8. Draw the structure of MSG.
9. Define the term normality.
10. Differentiate between the terms molecular weight and equivalent weight.
11. Name two indicators that are used in acid-base titrations.
12. Predict the product for the reaction:  $\text{NCCH}_2\text{CH}_2\text{CN} + \text{H}^+/\text{H}_2\text{O} \rightarrow ?$

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

Answer any **FIVE** questions

13. Give an account of esterification and alkaline hydrolysis of esters.
14. Offer any four general properties of ethers.
15. Suggest one method of preparation of organo lithium and organo lead compound.
16. Mention one food adulterant present in wheat, rice, milk and butter.
17. Define the following: Primary and secondary standards in titrimetry with examples.
18. Write the mechanism for  $\text{S}_{\text{N}}1$  reaction.
19. Explain the principle associated with titrations.

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

Answer any **THREE** questions

20. Provide reaction sequence for the following reactions: Claisen condensation, Dieckmann condensation, Reformatsky reaction, Curtius rearrangement and Friedel-Crafts reaction.
21. Describe the action of epoxide on  $\text{LiAlH}_4$ ,  $\text{NH}_3$  and  $\text{CH}_3\text{OH}$ .
22. Write any five synthetic uses of  $\text{CH}_3\text{MgX}$ .
23. Define the following: food additives, preservatives, flavouring agents, emulsifiers and beverages.
24. Give an account on the theories of indicators.

**B.Sc. DEGREE EXAMINATION, APRIL 2019**  
**I Year I Semester**  
**General Chemistry- VI**

**Time : 3 Hours**

**Max.marks :60**

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

Answer any **TEN** questions

1. Provide an example for Perkin reaction.
2. Trifluoroacetic acid is more acidic than acetic acid. Why?
3. How an ether can be prepared by Williamson ether synthesis?
4. What will be formed when diethyl ether reacts with dilute sulphuric acid under pressure?
5. Grignard reagent gives hydrocarbon on reaction with water. Is it true or false?
6. Offer an example for organolead compound.
7. Give two examples for common food adulterants.
8. Draw the structure of MSG.
9. Define the term normality.
10. Differentiate between the terms molecular weight and equivalent weight.
11. Name two indicators that are used in acid-base titrations.
12. Predict the product for the reaction:  $\text{NCCH}_2\text{CH}_2\text{CN} + \text{H}^+/\text{H}_2\text{O} \rightarrow ?$

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

Answer any **FIVE** questions

13. Give an account of esterification and alkaline hydrolysis of esters.
14. Offer any four general properties of ethers.
15. Suggest one method of preparation of organo lithium and organo lead compound.
16. Mention one food adulterant present in wheat, rice, milk and butter.
17. Define the following: Primary and secondary standards in titrimetry with examples.
18. Write the mechanism for  $\text{S}_{\text{N}}1$  reaction.
19. Explain the principle associated with titrations.

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

Answer any **THREE** questions

20. Provide reaction sequence for the following reactions: Claisen condensation, Dieckmann condensation, Reformatsky reaction, Curtius rearrangement and Friedel-Crafts reaction.
21. Describe the action of epoxide on  $\text{LiAlH}_4$ ,  $\text{NH}_3$  and  $\text{CH}_3\text{OH}$ .
22. Write any five synthetic uses of  $\text{CH}_3\text{MgX}$ .
23. Define the following: food additives, preservatives, flavouring agents, emulsifiers and beverages.
24. Give an account on the theories of indicators.