

Roll No. \_\_\_\_\_

(Total No. of Pages 2)

**SVIS-N-314 AB-19**  
**B.Sc VI Semester Degree Examination**  
**CHEMISTRY**  
**Paper – 6.1 (New)**

Time : 3 Hours

Maximum Marks : 80

Instruction to Candidate:

Answer all the three Sections

**Section – A**

I Answer the following Questions

(15 X 1 = 15)

1. Write an equation for calculation of BOD.
2. What is Co-Precipitation.
3. Write the equation for populations standard deviation.
4. Mentions the reagent used for precipitations of sulphate.
5. Expand DMG
6. What are enzymes.
7. What is ISO-electric point.
8. What are terpenes.
9. Write the structure pinene
10. What are harmones.
11. What are electromagnetic radiations.
12. Give the selection rule for vibrational spectra
13. What are isotopes.
14. What is radiolysis.
15. What are stokes line.

**Section – B**

II Answer Any Five of the following Questions

(05 X 05 =25 )

16. Write note on precipitation and washing the precipitation.
17. Write a note significant figures and computation.
18. Elucidate the structure of citral
19. Write a note on menthol camphor
20. Write a note on ceric sulphate dosimeter.
21. Give the difference between the raman spectra and Infra-red Spectra.

### Section –C

III Answer Any Five of the Following Questions

(08 X 05 = 40 )

22. a). Explain the determination of dissolved oxygen by winklers method. (04)  
b). Explain the distribution of random errors using Gaussian Curve. (04)
23. a). Write a note on sampling and preservation of water. (04)  
b). i). Find the median for the following values 37,31,42,43,46,25,29,45,32.  
ii). Calculate the Co-efficient of variation of  $S=2.5$  and Mean  $(x) = 12$ .
- 24 a. Explain the Synthesis of  $\alpha$  – amino acids i ) from acid ii) Strecker Synthesis. (04)  
b. Explain the general method of preparation of alkaloids. (04)
- 25 a. Explain Hofmann exhaustive methylation. (04)  
b. Discuss the biological importance of Vitamin-B2 and Vitamin-C. (04)
- 26 a. Derive an energy expression of non-rigid rotator of diatomic molecule. (04)  
b. Write note on polarizability. (04)
- 27 a. Explain the basic features of different spectrometers. (04)  
b. Write note on Friche dosimeter. (04)