

Roll No. _____

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SVIS-N 309 A -16
B.Sc. VIth Semester Degree Examination
CHEMISTRY
Paper - 6.2
(New)

Time : 3 Hours

Maximum Marks : 80

Instructions to candidates:

Answer all sections.

Section -A

I. Answer the following Questions

(15×1=15)

1. What is glass?
2. Give the composition of Borosilicate glass
3. What is cement?
4. What are pigments?
5. What is emulsion paints?
6. Define chemotherapy.
7. What is producer gas?
8. Give an example of gaseous fuel
9. Write the structure of Gammexane.
10. Give one common micro - organism of food stuff.
11. What is electrolytic cell?

12. Write the relation between free energy and electrical energy
13. Mention the reason for origin of electrode potential
14. What is standard cell?
15. What is over voltage?

Section -B

II. Answer any five of the following questions. (5×5=25)

16. Describe the manufacture of glass by pot-furnace process.
17. How portland cement is manufactured?
18. What are drugs? Discuss different types of drugs
19. Explain with examples adulterants and contaminants in food products
20. Write a note on octane number of liquid fuels.
21. Derive Nernst-equation for electrode potential
22. Write a note on lead storage cell.

Section -C

III Answer any four of the following (4×10=40)

23. a) What are different types of glasses? Give properties, and uses of Boro-silicate glass. (6)
b) Explain the mechanism of setting of cement. (4)
24. a) Explain the manufacture of white lead. (6)
b) Give the various constituents of paints. (4)
25. a) Explain the proximate analysis of ash and carbonaceous matter in coal. (6)
b) How do you analyse the moisture in food products (4)
26. a) Discuss a thin layer chromatography for chlorinated pesticides in food products (6)
b) Give the synthesis and uses of Aspirin. (4)

27. a) How pH of a solution is determined using quinhydrone electrode? Give its limitations. (6)
- b) What is electrode potential? Calculate potential of Zn-electrode in 0.01m ZnSO_4 solution at 28°C .
 $E^\circ = -0.76 \text{ Volt.}$ (4)
28. a) What is reference electrode? Explain the construction of calomel electrode with a neat diagram and give the electrode reaction (6)
- b) Write a note on liquid function potential (4)