

D. K. M. COLLEGE FOR WOMEN (AUTONOMOUS), VELLORE-1
SEMESTER EXAMINATIONS
NOVEMBER - 2017

15CACH1A

ALLIED : CHEMISTRY - I

Time : 3 Hours

Max. Marks : 75

SECTION – A (10 x 2 = 20)

Answer ALL the questions.

1. What are Isotopes? Give an example.
2. Give the properties of α - particle.
3. Draw the structure of diborane.
4. Define ore dressing.
5. What are hormones? Give examples.
6. Draw the structure of prontosil.
7. (i) Phenol + neutral ferric chloride \longrightarrow
(ii) Diamide + NaOH $\xrightarrow{\Delta}$
8. What is mutarotation?
9. Give the composition of gobar gas.
10. Define chromatography.

SECTION – B (5 x 5 = 25)

Answer any FIVE of the following questions.

11. Give the applications of radioisotopes.
12. Write a note on binding energy.
13. Write a note on Van Arkel process.
14. Discuss the function of insulin.
15. (i) Write the structure of glucose and sucrose. (3)
(ii) Glucose + Tollen's reagent $\xrightarrow{\Delta}$? (1)
(iii) Aldehydes + Schiff's reagent \longrightarrow ? (1)
16. What is the difference between thermoplastics and thermosetting plastics?
17. (i) Draw the structure of penicillin. (2)
(ii) Give the preparation and uses of sulphapyridine. (3)
18. Write the applications of silicones.

SECTION – C (3 x 10 = 30)

Answer ALL the questions.

19. (a) Write a note on N/P ratio and C^{14} dating.

(Or)

- (b) Explain the various reduction methods of ore dressing.

20. (a) Discuss the preparation, properties and structure of Borazole.

(Or)

(b) Give the occurrence, deficiency and diseases of vitamins.

21. (a) (i) Give the composition and uses of water gas and carbureted water gas. (5)

(ii) Write the principle and applications of column chromatography. (5)

(Or)

(b) (i) Define carbohydrates. How are they classified? (5+5)

(ii) What happens when glucose reacts with bromine water and sodium - amalgam?

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