C. ABDUL HAKEEM COLLEGE (AUTONOMOUS),

MELVISHARAM - 632 509.

SEMESTER EXAMINATIONS, NOVEMBER - 2018

B.Sc., MATHEMATICS & PHYSICS

U15ACH301 / U14ACH301–CHEMISTRY – I (ALLIED)

SEMESTER III

Time: Three Hours

Maximum: 60 Marks

SECTION - A (10 X 1 = 10 Marks)

Answer **ALL** Questions.

1. Write any one example of mineral of iron.
2. Write the ores of copper.
3. How will you prepare cyclohexane?
4. What is racemic mixture?
5. Define catalyst.
6. State Grothus Draper's law.
7. What are fuels?
8. What is cracking?
9. Define octane number.
10. State group displacement law.

SECTION - B (5 X 4 = 20 Marks)

Answer **ALL** Questions.

11. a) Explain the froth flotation process.

(Or)

b) Write notes on zone refining.

12. a) Explain the chemical properties of cyclohexane.

(Or)

b) Write notes on the inductive effect.

13. a) Differentiate the order and molecularity.

(Or)

b) List out the industrial applications of catalysts.

14. a) Discuss the need for solar energy.

(Or)

b) Explain the desalination process of sea water.

15. a) Describe the fractional distillation of petroleum.

(Or)

b) Give an account on C^{14} dating.

SECTION - C (3 X10 = 30 Marks)

Answer **ANY THREE** Questions.

16. Explain the various steps involved in obtaining uranium from its ore pitchblende.
17. Describe the optical activity of lactic acid and tartaric acid.
18. Illustrate the following: i) Phosphorescence   ii) Fluorescence.
19. Discuss the preparation, properties and uses of naphthalene.
20. Explain the renewable and non-renewable sources of energy.

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