



QP CODE: 21101944

Reg No :

B.Sc DEGREE (CBCS)EXAMINATION, AUGUST 2021

Third Semester

B.Sc Chemistry Model III Petrochemicals

Core Course - CH3PCT04 - MANUFACTURE OF PETROCHEMICALS-I

2017 Admission Onwards

5CB8CDAF

Time: 3 Hours

Max. Marks: 60

Part A

Answer any ten questions.

Each question carries 1 mark.

- 1. Which alcohol is termed denatured spirit?
- 2. Write the chemical equation for steam methane reforming reaction.
- 3. Name the material added to natural rubber to decrease the electrical resistance.
- 4. Name the material used as a pigment and reinforcing phase in automobile tires.
- 5. Write the positive aspects of hydrogen cyanide.
- 6. Give the expanded form of R22.
- 7. How methyl dichloride is manufactured?
- 8. Which compound is used for the carbrization of steel?
- 9. Name the compound used for producing tetraethyl lead.
- 10. Which compound is used in the absorption of carbon dioxide?
- 11. Write the chemical equation for the oxidation of alcohol.
- 12. Which is the organic addittive in the grinding of cement clinker?

 $(10 \times 1 = 10)$

Part B

Answer any **six** questions.

Each question carries **5** marks.

13. Write the chemical equation when methane and ammonia reacts in presence of oxygen.



- 14. What is shawinigan process?explain.
- 15. Write the reaction mechanism of chlorination of methane.
- 16. Explain the method to produce carbon tetrachloride.
- 17. Explain the method to produce carbon disulphide.
- 18. Explain the manufacture of ethyl chloride by hydrochlorination.
- 19. Explain the manufacture of ethylene oxide by oxidation.
- 20. What are the uses of acetic acid?
- 21. Write the chemical equations for the production of vinyl acetate.

 $(6 \times 5 = 30)$

Part C

Answer any **two** questions.

Each question carries 10 marks.

- 22. Explain the BMA process for the production of HCN.
- 23. What are the raw material for the production of acetylene?explain the production of acetylene with flow chart?
- 24. Explain the manufacture of ethylene glycol through chlorohydrin manufacturing process with flow chart.
- 25. Explain the production of vinyl chloride with flow chart.

 $(2 \times 10 = 20)$