This question paper contains 1 printed page.

M.Tech. / Sem. VI

CHEMICAL SYNTHESIS AND PROCESS TECHNOLOGIES
(N.C - Admission of 2008 and onwards)

Time: 2 hours

(Write your Roll No. on the top immediately on receipt of this question paper)

Maximum Marks: 38

Attempt all questions

1. Why is hydrogen considered as a future fuel? (2)

2. What is the difference between catalytic reforming and Isomerization? Explain with an example. (3)

3. What are the three basic functions of cracking, and explain Fluid catalytic cracking. (4)

4. Explain any three (6)
   1. Octane Number or Cetane Number
   2. Primer
   3. Vis-breaking
   4. Polytetra fluoroethylene
   5. Thixotropic agents

5. Explain the process of Solvent dewaxing with the help of flow diagram. (3)

6. What are antioxidants? Explain their role in Sunscreen lotion. (2.5)

7. Name the flower which has been extracted by cohabation method. Explain this process. (3.5)

8. What is the role of fixative in perfumes. Name two fixatives. (3)

   OR

   What are advantages of hypocritical carbon dioxide method over other methods?

9. Write the structure of Thymol and Menthol and their sources of Isolation. (3)

10. What are the ingredients of paint and their role in formulation of paints? (4)

11. a) Name the chemical substance used as anti-fouling agent. (1+3)
    b) What are the draw backs of using heavy metal in the paint industry? Name it's replacement.