

# V.P. & R. P. T. P. SCIENCE COLLEGE

B. Sc. (Semester - V) Examination

INDUSTRIAL CHEMISTRY

PETROLEUM TECHNOLOGY

03/10/2013, Thursday

COURSE NO: **US05CICH03**

TIME: 3.30 TO 5.00 PM.

TOTAL MARKS – 30

Q.1 Answer the following MCQs:

(06)

- (I) Demulsification process is used in crude oil for removal of  
a. water                      b. Sulphur                      c. Salts                      d. None of these
- (II) Gribotol process is used in crude oil for removal of  
a. water                      b. Sulphur                      c. Salts                      d. None of these
- (III) Ethylene glycol is prepared from oxidation and hydration of  
a. Ethylene   b. Propylene   c. Acetylene   d. Methane
- (IV) Saybolt's viscometer is used for determination of  
a. kinematic viscosity                      b. Aviline point  
c. carbon content                      d. Carbon content
- (V) The catalyst used in manufacture of HCN is  
a. Ag                      b. Pt                      c. Au                      d. Cu
- (VI) \_\_\_\_\_ is used in manufacture for unsaturated polyester manufacture.  
a. Maleic anhydride   b. HCN                      c. CS<sub>2</sub>                      d. H<sub>2</sub>O<sub>2</sub>



Q.2 Answer the following short questions (Any three)

(06)

- (I) Explain signification of sulphur removal from crude oil.
- (II) Name the various reactions taking place in catalytic cracking.
- (III) What are the different chemicals derive from propane-propylene fraction.
- (IV) What are the different chemicals derive from C<sub>4</sub> fraction.
- (V) Write uses of HCN and CS<sub>2</sub> in brief.
- (VI) Sketch the flow diagram of ethyl benzene manufacture using AlCl<sub>3</sub> catalyst.

Q.3(a) Discuss the theory of petroleum formation in detail.

(03)

(b) Explain the composition of petroleum with suitable example.

(03)

OR

Q.3(a) Discuss construction & working of bubble cap tray.

(03)

(b) Explain refining of light petroleum products.

(03)

Q.4 Explain the hypersorber methods of ethylene separation from cracker gas.

(06)

OR

Q.4 Write complete note on UDEX method for separation of aromatic.

(06)

Q.5 Write short note manufacture of isopropyl benzene.

(06)

OR

Q.5 Write short note on manufacture of caprolactum.

(06)