



NCD-003-045401 Seat No. _____

**B. Voc. (Chemical Technology) (Sem. IV)
(CBCS) Examination**

April / May - 2017

BVCT - 401 : Petroleum & Petrochemicals

Faculty Code : 003

Subject Code : 045401

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

- Instructions :** (1) All questions are compulsory & carry equal marks.
(2) Draw diagram and/or scheme wherever necessary.

1 (A) Answer the following questions : 10

- (1) Define : (1) Petroleum (2) Gas-cap
- (2) Preparation for processing of crude oil by chemical, maximum doping of NaOH is _____ Lit/hr
- (3) What is synthetic crude?
- (4) Enlist classification of Crude Oil.
- (5) Give any two reactions of steam reforming to produce SNG.
- (6) Enlist composition of petroleum.
- (7) Give structure of vinyl acetate monomer.
- (8) Give reaction for the synthesis of cumene from benzene.
- (9) Give structure of maleic anhydride.
- (10) Give structure of iso butanol.

(B) Answer the following questions : 20

- (1) What is desalting and write any four benefits of crude oil desalting.
- (2) Give the, introduction about jet-fuel.
- (3) Explain the origin and occurrence of petroleum.
- (4) Write a short note on Exploration.

- (5) Explain any two petroleum & petrochemical industries in India.
- (6) Give only reaction for synthesis of methacrylic acid.
- (7) Give only reaction for synthesis of acetic acid.
- (8) Explain synthesis of carbon disulphide with schematic diagram.
- (9) Give only reaction for synthesis of acrylonitrile and its use.
- (10) Give synthesis and schematic diagram of ethylene glycol.

2 Answer any 4 out of the following 6 questions : **20**

- (1) Give the brief introduction about refining.
- (2) Explain steam reforming from natural gas.
- (3) Explain desalting process in detail.
- (4) Explain synthesis of methanol with schematic diagram.
- (5) Explain synthesis of ethanol with schematic diagram.
- (6) Explain synthesis of isopropanol with schematic diagram.

3 Answer any 4 out of the following 6 questions : **20**

- (1) Explain Preparation for processing of crude oil by equipment.
- (2) Write the short note on Gasoline, Diesel, Fuel oil & Lubricants.
- (3) Explain SNG production via partial oxidation.
- (4) Explain synthesis of glycerol with schematic diagram.
- (5) Explain synthesis of butadiene with schematic diagram.
- (6) Explain synthesis of hydrogen cyanide with schematic diagram.