Enrollment No. _____

Shree Manibhai Virani and Smt. Navalben Virani Science College (Autonomous), Rajkot

Affiliated to Saurashtra University, Rajkot

SEMESTER END EXAMINATION APRIL - 2018

B.Voc. Chemical Technology

BVCT 403 – POLYMER TECHNOLOGY

Duration of Exam – 2.30 hrs ***Semester* – IV** ***Max. Marks – 70***

Que. 1 (A) – Answer the following Questions **[10]**

1. What is Polymer Compounding?
2. Enlist the types of blade used in kneader.
3. Give the full form i) CSTR ii) PFR
4. Give the classification of molding.
5. Define: i) Mixing ii) Extrusion
6. Define tacktiness.
7. What is Strain and Stress?
8. Draw the structure of hevea brasiliensis and gutta percha rubber.
9. ASTM D695 is used for _____.
10. Enlist materials used in compounding of rubber

Que. 1 (B) – Answer the following Questions **[20]**

1. Give any two Advantages and Disadvantages of the Emulsion polymerization
2. Describe Plug flow reactor in short.
3. Explain kneader equipment in short
4. Give short explanation about Spinning process with diagram.
5. Explain transfer molding in short.
6. Enlist types of composite.
7. Define adhesive.
8. What is chlorinated rubber?
9. Describe the method to prepare specimen for measurement of tensile strength.
10. Illustrate any four properties of adhesive.

Que. 2 Answer the following Questions (Any Four) **[20]**

1. Give brief explanation about polymer foams.
2. Describe Bulk polymerization in detail.
3. Explain Extruder in detail.
4. What is vulcanization? Explain in detail.
5. Discuss synthesis and properties of butyl rubber
6. A polymer has 10 moles of 10000 molecular weight and 5 moles of 2500 molecular weight. Calculate number average molecular weight and weight average molecular weight.

Que. 3 Answer the following Questions (Any Four) **[20]**

1. Describe Solution polymerization in detail.
2. Give brief explanation about polymer films.
3. Explain Blow molding with diagram.
4. Discuss synthesis and properties of nitrile rubber.
5. A polymer has 15 moles of 50000 molecular weight and 6 moles of 6300 molecular weight, calculate number average molecular weight and weight average molecular weight.
6. What is Izod test and how will you measure impact resistance of plastic.