# 17427

**11718**

**3 Hours / 100 Marks** Seat No. | | | | | | | | |

***Instructions*** : *(1)* ***All*** *questions are* ***compulsory****.*
*(2) Answer* ***each*** *next main question on a* ***new*** *page.*
*(3) Illustrate your answers with neat sketches* ***wherever*** *necessary.*
*(4) Use of Non-programmable Electronic Pocket Calculator is* ***permissible****.*
*(5) Mobile Phone, Pager and any other Electronic Communication devices are* ***not*** *permissible in Examination Hall.*
*(6) Use of Steam tables, logarithmic, Mollier's chart is* ***permitted****.*

**Marks**

**1.** A) Attempt **any six** : **12**

a) What are the methods of production of pulp ? Give two important chemical processes. **2**

b) What is the cause of rancidity ? **2**

c) State physical properties of acetone and its uses (any two each). **2**

d) What is methylated spirit ? Give its composition. **2**

e) What are the conditions for good soap ? **2**

f) Define :

i) Saponification value.

ii) Iodine value. **2**

g) What is black liquor ? **2**

B) Attempt **any two** : **8**

a) Give classification of plastic and write two examples of each type. **4**

b) What are basic raw material required for manufacturing of paints ? **4**

c) Describe process of hydrogenation of oil. **4**

**2.** Attempt **any four** : **16**

a) What are the different methods of production of alcohol ? **4**

b) Describe the manufacturing process of oil varnishes. **4**

c) Compare the sulphate and sulphite process of pulp manufacturing. **4**

d) Draw flow sheet for manufacturing of phenol by chlorobenzene-NaOH. **4**

e) Draw flow sheet for manufacturing of polyethylene by high pressure process. **4**

f) Compare hot and cold process of soap manufacturing. **4**

**P.T.O.**

**Marks**

**3.** Attempt **any four** : **16**

a) Explain the principle of production of Ethyl acetate with chemical reaction. **4**

b) Draw the manufacturing flow sheet of paint. **4**

c) Describe the bleaching of pulp. **4**

d) Draw flow diagram for manufacture of phenol by toluene oxidation process. **4**

e) Give raw material required for manufacturing of Rayon and its uses. **4**

f) Give classification of polymers with examples. **4**

**4.** Attempt **any four** : **16**

a) Give manufacturing process of phenol. **4**

b) What are the various uses of vanishes ? **4**

c) Write short note on fermentation. **4**

d) Differentiate between soap and detergents. **4**

e) Explain the refining process of oil. **4**

f) What is polymer ? Discuss the mechanism of polymerisation. **4**

**5.** Attempt **any two** : **16**

a) Describe the manufacture of butanol from molasses with neat flow sheet. **8**

b) Describe the manufacturing process of detergent. **8**

c) Explain with flow diagram manufacturing of phenol by cumene peroxide process. **8**

**6.** Attempt **any two** : **16**

a) With neat flow sheet explain the manufacturing process of Viscus Rayon. **8**

b) Describe manufacturing process of ethylene glycol from ethylene. **8**

c) Draw neat flow diagram and explain production of phenol by benzene sulfonate process. **8**

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