

**2021**

**Full Marks - 75**

**Time - As in the Programme**

*The figures in the right hand margin indicate marks.*

*Answer ALL questions.*

1. Answer all questions.
  - (i) Write the structure of tartaric acid. [2]
  - (ii) What is optical isomerism, give suitable examples. [2]
  - (iii) Write few examples of  $SP^2$  hybridization agents. [2]
  - (iv) Write halogenation reaction of alkanes with suitable example. [2]
  - (v) Write the structure and uses of chloroform and iodoform. [2]
  - (vi) Give the preparation of benzyl alcohol. [2]
  - (vii) Write the structure and uses of salicylic acid and Dimethyl Phthalate. [2]

[ Cont...

[ 2 ]

(viii) What are aliphatic amines. Give suitable examples. [2]

(ix) Write the preparation of Acetic Acid. [2]

(x) Explain crossed Aldol Condensation. [2]

2. Answer any 2 out of 3.

(a) Explain  $E_1$  and  $E_2$  reactions with suitable examples. [10]

(b) Write the general method of preparation of aliphatic amines. Explain the effect of substituent on basicity of amines. [10]

(c) Explain following reactions : [10]

(i) Markownikoff's Orientation.

(ii) Free radical addition reaction.

3. Answer any 7 out of 9.

(i) Explain  $SN_1$  and  $SN_2$  reaction with suitable example. [5]

(ii) Discuss the halogenation reactions of methane in presence of UV light. [5]

(iii) Discuss the mechanism of cannizzaro reaction. [5]

[ Cont...

[ 3 ]

- (iv) Explain various qualitative tests for alcohols. [5]
- (v) Write brief note on : [5]
- (a) Perkin Condensation.
  - (b) Benzoin Condensation.
- (vi) Explain tautomerism with suitable example. [5]
- (vii) Write the uses of following compounds : [5]
- (a) Oxalic acid
  - (b) Lactic acid.
  - (c) Acetyl Salicylic acid.
  - (d) Ethyl chloride.
  - (e) Ethanolamine.
- (viii) Write any two methods of preparation of conjugated dienes. [5]
- (ix) Mention the factors affecting  $E_1$  and  $E_2$  reactions. Explain ozonolysis. [5]



II - S - B. Pharma -  
POC - I - BP - 202 T