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**SB—04—2022**

**FACULTY OF SCIENCE**

**B.Sc. (Third Year) (Sixth Semester) EXAMINATION**

**JUNE/JULY, 2022**

**(CBCS/Old Pattern)**

**CHEMISTRY**

**Paper XIV (A2)**

**(Organic and Inorganic Chemistry)**

**(Thursday, 2-6-2022)**

**Time : 10.00 a.m. to 12.30 p.m.**

*Time—2½ Hours*

*Maximum Marks—40*

*N.B. :— (i) Attempt All questions.*

*(ii) Figures to the right indicate full marks.*

1. Answer any *three* of the following : 3×5=15

- (a) What is degree of polymerisation ? Explain with example.
- (b) Compare organic and inorganic polymers.
- (c) How are silicones prepared ?
- (d) What is nano-cluster ? How can metal nano-clusters produced ?
- (e) What are the applications of nano-material in medicine and biomedical research ?

2. Answer any *three* of the following : 3×5=15

- (a) Discuss manufacturing of cane sugar.
- (b) Discuss properties of starch.
- (c) Give synthesis and uses of :
  - (i) Indole-3-acetic acid
  - (ii) Monochrotopous.

P.T.O.

- (d) Write twelve principles of green chemistry.
- (e) Give manufacturing of ethyl alcohol from molasses.
3. Answer any *two* of the following : 2×5=10
- (a) Discuss refining of raw sugar.
- (b) What are fibres ? Give its classification.
- (c) What are fertilizers ? Give advantaes of nitrogenous fertilizers.
- (d) Write Friedel-Craft alkylation and acylation reaction.