

Seat No.	
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B.Sc. (Part - III) (Semester - V) Examination, November - 2019

CHEMISTRY

Industrial Chemistry (Paper - XII)

Sub. Code : 65826

Day and Date : Tuesday, 05 - 11 - 2019

Total Marks : 40

Time : 12.00 noon to 2.00 p.m.

- Instructions :
- 1) All questions are compulsory.
 - 2) Figures to the right indicates full marks.
 - 3) Draw neat labelled diagrams wherever necessary.

Q1) Select the most correct alternatives among those given below and rewrite the sentence: [8]

- a) Tinning is _____ type of method of protection of metals.
- i) Electrolytic
 - ii) Non-electrolytic
 - iii) Alloying
 - iv) Electroplating
- b) Oleum is nothing but _____.
- i) Pyrosulphuric acid
 - ii) 98% H_2SO_4
 - iii) Concentrated H_2SO_4
 - iv) Dilute H_2SO_4
- c) Defecation is a process used in _____ of cane juice.
- i) Extraction
 - ii) Concentration
 - iii) Purification
 - iv) None of these
- d) Some free alkali is present in _____ soap.
- i) Washing
 - ii) Toilet
 - iii) Shaving
 - iv) None of these
- e) In scanning electron microscopy (SEM) sample is placed at _____ of assembly.
- i) Bottom
 - ii) Top
 - iii) Middle
 - iv) Any where

P.T.O.

- f) _____ of the following is not additive used in soap manufacture.
- i) Fatty acid
 - ii) Antioxidant
 - iii) Fixative
 - iv) Builder
- g) Solution of gold nanoparticles shows different colours due to _____.
- i) Different concentration
 - ii) Different particle size
 - iii) Different molecular condition
 - iv) Different energy
- h) In galvanisation iron is coated by _____ metal.
- i) Chromium
 - ii) Aluminium
 - iii) Nickel
 - iv) Zinc

Q2) Attempt any two of the following: [20]

- a) Discuss the physico - chemical principles involved in the manufacture of nitric acid.
- b) What is corrosion? Mention and explain different methods of protection of metals.
- c) Discuss the method of refining the raw sugar.

Q3) Attempt any three of the following: [12]

- a) Explain briefly different applications of nano materials.
- b) Give merits and demerits of detergents over soap.
- c) Discuss in brief one step manufacture of white sugar in India.
- d) Explain oxide film theory of passivity.
- e) Draw a neat labelled diagram for the manufacture of ammonia by Haber process.

