



Seat No.	
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**B.Sc. – II (Semester – III) (Entrepreneurship) (CGPA – Pattern) (Old)
Examination, 2018
INDUSTRIAL CHEMISTRY
Paper – III (Analytical and Industrial Aspects of Inorganic Chemistry)**

Day and Date : Thursday, 26-4-2018

Total Marks : 70

Time : 2.30 p.m. to 5.00 p.m.

- N.B. :**
- i) All questions are **compulsory**.*
 - ii) Draw **neat** labeled diagrams and write equations **wherever** necessary.*
 - iii) Figures to the **right** indicate **full** marks.*

1. Select the most correct alternative for **each** of the following and rewrite the sentences :

14

- i) Ionic theory of acid-base indicator was proposed by
a) Pauling b) Whitney c) Faraday d) Ostwald
- ii) Particle size of _____ precipitate is smallest.
a) Crystalline b) Amorphous
c) Gel d) Solid
- iii) The substance which increases the rate of reaction is called _____ catalyst.
a) retarder b) positive c) negative d) promoter
- iv) In manufacture of sulphuric acid by contact process temperature range is _____ °C.
a) 400-450 b) 500-600 c) 200-250 d) None of these
- v) Passivity is the _____ phenomena.
a) Surface b) Internal c) Collective d) Inorganic
- vi) Phenolphthalein has the colour change interval _____ pH.
a) 3.5-6.1 b) 8.6-10.6 c) 4-6 d) 11-13
- vii) Nucleation is _____ step of precipitation.
a) Final b) Internal c) Initial d) Last

P.T.O.



3. A) Solve **any two** of the following : **10**
- i) Discuss the colour change interval of an indicator.
 - ii) Draw the labeled diagram for manufacture H_2SO_4 by contact process.
 - iii) Write a note on electrochemical theory of corrosion.
- B) How do you classify the catalytic reactions ? **4**
4. Solve **any two** of the following : **14**
- i) What are the types of acid-base titrations ? Explain the choice of indicator with the help of neutralisation curve for strong acid against weak base.
 - ii) What are the conditions for good precipitation ?
 - iii) Discuss in detail modern theory of catalysis.
5. Solve **any two** of the following : **14**
- i) Discuss the effects of moisture and oxygen on the process of corrosion.
 - ii) Discuss in detail, manufacture of ammonia by Haber's process.
 - iii) Write the characteristics of catalysts.
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