

Roll No. \_\_\_\_\_

No. of Printed Pages : 02

**V. P. & R. P. T. P. SCIENCE COLLEGE, V. V. NAGAR.**

**INTERNAL TEST: MARCH-2018**

**T. Y. B. Sc. Semester-VI**

**Sub.:- Inorganic Chemistry, Course Code :-US06CCHE04**

**Date: 15/03/2018**

**Total Marks:25**

**Day: Thursday**

**Time: 11.00 A.M. To 12.30 P.M.**

**Note: (i) All questions are to be attempted.**

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

**Q : 1 Give the most correct choice to the following multiple choice questions.**

**[3]**

(i) Although, \_\_\_\_\_ is placed near top of the electro-motive force series, yet it resists atmospheric corrosion effectively.

(a) zinc (b) aluminium (c) sodium (d) copper

(ii) \_\_\_\_\_ is not effect of alloying.

(a) Decreasing melting point (b) Increasing hardness of metal  
(c) Decreasing castability (d) Modifying colour

(iii) Mark the compound which gives carbon with concentrated  $H_2SO_4$ .

(a) Starch (b) Oxalic acid (c) Ethanol (d) Formic acid

**Q : 2 Answers the following short questions(any two).**

**[4]**

(i) Explain immersed corrosion by "acid-theory."

(ii) List different types of steel and explain any one of them.

(iii) Explain, sulphuric acid neutralizes alkalis to give two series of salts.

**Q : 3[A] Explain the term 'passivity' and discuss the protective layer theory. [3]**

**[B] Discuss the prevention of corrosion by producing insoluble oxide coating and by hot dipping. [3]**

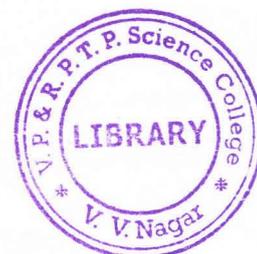
**OR**

**Q : 3[A] Describe the factors determining rate of corrosion reaction for metal sheltered from rain in gaseous environments. [3]**

**[B] Corrosion starts from metal joints. Explain. [3]**

**Q : 4[A] Give the classification of alloys. Discuss non-ferrous alloys with suitable examples. [3]**

**[B] Write note on: Inter-metallic compounds. [3]**



OR

Q : 4[A] Discuss in detail the fusion method for the preparation alloys. [3]

[B] Explain substitutional alloys and discuss the phase diagram of brass alloy. [3]

Q : 5[A] Explain nitric acid as an important oxidizing reagent. [3]

[B] Describe the manufacture of caustic-soda by using Nelson cell. [3]

OR

Q : 5[A] Describe the contact process for the manufacture of sulphuric acid. [3]

[B] Discuss the manufacture of nitric acid by Ostwald's process in detail. [3]

\*\*\*\*\*

