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

INTERNAL TEST: OTCOBER-2016

T. Y. B. Sc. Semester-V

Sub.:- Inorganic Chemistry (US05CCHE04)

Date: 04/10/2016 **Total Marks:25**

Day: Tuesday **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) _____ solvent does not undergo self ionization.

(a) liq. SO_2 (b) liq. HF (c) liq. C_6H_6 (d) liq. NH_3

(ii) Ammonia is a .....

(a) Bronsted base (b) Lewis base (c) neither (a) or (b) (d) both (a) & (b)

(iii) The glass which contains about _____ % silica is called high silica glass

(a) 85% (b) 96% (c) 90% (d) 99%

Q : 2 Answers the following short questions(any two). [4]

(i) Explain the term "Amphiprotonic substances".

(ii) Discuss the mechanical properties of ceramics.

(iii) Write the polymerization of process for dialkyl-dihydroxy-silane.

Q : 3[A]Discuss liquid ammonia as a non aqueous solvent under following following heads. [3]

(i) Metathetical reactions (ii) Redox reactions

[B]Discuss the classification of Lewis acids [3]

OR

Q : 3[A] "Relative acidic strength of oxy acids of chlorine follows oxidation state rule, while that of phosphorus does not follow". Explain giving suitable examples. [3]

[B]Describe the general chemical reactions that occur in ionizing solvent. [3]

Q : 4[A]List important steps involve for manufacture of ceramics product and give an account of kneading and jollying. [3]

[B]Write note on recuperative pot furnace. [3]

OR

Q : 4[A]Discuss the application of colour of pottery. [3]

[B]Describe fused silica glass and optical glass. [3]

Q : 5[A]Discuss the inorganic benzene under headings: [3]

(i) Preparation (ii) Chemical properies

[B]Give an account on imides of sulphur. [3]

OR

Q : 5[A]What are silicones. Describe high thermal silicones and silicon oil in detail. [3]

[B]Discuss the structure of cyclic triphosphonitrilic chloride. [3]