

V.P. & R.P.T.P.SCIENCE COLLEGE
B.Sc.(SEMESTER –IV) INTERNAL EXAMINATION

Applied Chemistry: US04CCHE02

Date: 11-03-2019, Monday

Time: 3:00 P.M. to 5:00 P.M.

Total Marks: 50

Q – 1 : Choose the correct option from the following.

[08]

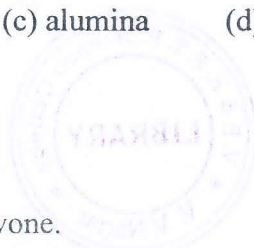
- (i) Absorption spectrum in UV region result from:
(a) Electronic excitation (b) Decrease in rotational energy
(c) Increase in vibration (d) Increase in potential energy
- (ii) Most common solvent used in ultraviolet region are
(a) cyclohexane (b) 1,4-dioxane (c) 95% ethanol (d) All of these
- (iii) Vitamin c become inactive if foods are prepared in vessels.
(a) zinc (b) aluminum (c) copper (d) none of these
- (iv) Which of the following vitamin is regarded as a membrane antioxidant?
(a) A (b) D (c) E (d) K
- (v) What percent of nitrogen present in calcium cyanamide?
(a) 45 (b) 33.5 (c) 21 (d) 30
- (vi) Which elements are considered as secondary plant nutrients?
(a) N,P,K (b) Ca,Mg,S (c) Zn,B,Cu (d) None of these
- (vii) Which substance is added for pre-aging of Plaster of Paris?
(a) Calcium carbonate (b) Calcium sulfate
(c) Calcium chloride (d) Calcium hydroxide
- (viii) Calcareous material provide for the manufacture of Portland cement.
(a) silica (b) iron oxide (c) alumina (d) lime



Q – 2 : Answer the following. (Any five)

[10]

- (i) Explain finger print region.
- (ii) Write the structure of myrcene and carvone.
- (iii) Give the classification of vitamins.
- (iv) Write the characteristic of scurvy.
- (v) Give the classification of plant nutrient.
- (vi) What are the sources of natural inorganic fertilizers?
- (vii) Explain reinforced concrete.
- (viii) Give the uses of lime.



Q-3 (a) Explain various types of electronic transition and arrange them in the increasing order of energy. [04]

(b) Write a note on Woodward Fieser rules for calculating absorption maxima. [04]

OR

Q-3 (a) Give the application of IR spectroscopy. [04]

(b) Write a note on Witt's theory. [04]

Q-4 Discuss chemistry, biochemical function and deficiency symptoms of vitamin A [08]

OR

Q-4 Write chemistry, dietary sources and deficiency symptoms of vitamin D [08]

Q-5 (a) Discuss basic raw material and manufacturing process of ammonium nitrate. [04]

(b) Write short note on Triple super phosphate. [04]

OR

Q-5 (a) Discuss the function of primary plant nutrient. [04]

(b) Write a note on mixed fertilizers. [04]

Q-6 (a) Discuss basic raw material and calcination process for manufacture of lime. [04]

(b) What are the effects of rate of cooling of clinker on Portland cement? [04]

OR

Q-6 (a) Discuss various form of gypsum in detail. [04]

(b) Write a note on Rotary kiln for manufacture of Portland cement and give relevant reaction. [04]

