

V.P. and R.P.T.P. SCIENCE COLLEGE.
VALLABH VIDYANAGAR
INTERNAL EXAMINATION
B.Sc. SEMESTER-VI
PHYSICAL CHEMISTRY-US06CCHE06

DATE-17-03-2018

MARKS 25

Time: 11.00 TO 12.30

Q-1 MULTIPLE CHOICE QUESTIONS

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- (i) At a given temperature, if activation energy is very high then the rate of reaction will be
(a) Medium (b) Fast (c) Slow (d) Very high
- (ii) Refractive index detector belongs to
(a) Solute property (b) universal (c) Bulk property (d) Selective
- (iii) When oxalic acid is shaken with ether and water, it _____ in water.
(a) Associates (b) Dissociates
(c) Remains same (d) Remains unaffected

Q-2 ATTEMPT THE FOLLOWING (ANY TWO)

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- (i) Discuss the effect of catalyst on the rate of reaction.
(ii) Explain column packing in HPLC.
(iii) State distribution law. Give the modified forms of it.

Q-3 Discuss the kinetics of following chain reaction mechanism.

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OR

Q-3 Discuss the Lindmann theory of unimolecular reaction.

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Q-4 Discuss refractive index detector and UV detector used in HPLC.

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OR

Q-4 Give advantages and applications of HPLC.

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Q-5 Derive an equation for determination of amount of solute extracted at the end of n^{th} extraction.

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OR

Q-5 Discuss briefly the various factors affecting the process of extraction.

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