

Roll No.

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Total No. of Pages : 02

Total No. of Questions : 09

B.Sc. (BT) (2018 Batch) (Sem.-2)

PHYSICAL CHEMISTRY

Subject Code : BSBT-201-18

M.Code : 75872

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A**1) Write briefly :**

- a) What are extensive properties?
- b) What is the degree of freedom?
- c) Explain the specific conductance.
- d) What are state variables?
- e) What is lever rule?
- f) What is the effect of temperature on specific conductance?
- g) Define instantaneous rate of reaction.
- h) What is eutectic point?
- i) Explain the independent variables.
- j) What is the order?

SECTION-B

- 2) What is the shortcoming of first law of thermodynamics and second law of thermodynamics?
- 3) Explain the Raoult's law.
- 4) Explain the parallel reactions.
- 5) What is the Buffer solution?
- 6) What is the Hess's law of heat of summation?

SECTION-C

- 7) Derive the Gibb's Helmholtz equation.
- 8) Derive the rate equation of second order reaction.
- 9) Explain the phase diagram of KI system.

NOTE : Disclosure of identity by writing mobile number or making passing request on any page of Answer sheet will lead to UMC case against the Student.