

Pramukh Swami Science & H. D. Patel Arts College, Kadi

Bachelor of Vocation

Pharmaceutical Chemistry Semester II

Mid Sem Examination, March 2017

PC 212 - Physical Chemistry

Time: 2 hrs

Date: 22/03/2017

Marks: 60

Q.1 Answer any 12 questions. Each question carries 1 mark

[12*1=12]

1. What is Photochemistry?
2. Define: Dark Thermal reaction.
3. For thermal reaction the free energy change is _____.
4. What is quantum yield?
5. What is Internal conversion?
6. Write a full name: ISC.
7. Define Thermodynamics?
8. Entropy is defined as _____
9. Equation of phase rule is _____
10. Sulphur has ___ component/s.
(a) 1 (b) 2 (c) 3 (d) 4
11. Efficiency of a carnot cycle is given by equation _____
12. Unit of entropy is _____.

Q.2 Answer any 5 questions. Each question carries 04 marks

[5*4=20]

1. Write a difference between Photo chemical and Thermal reaction.
2. Derive Lambert –Beer's Law.
3. Discuss any one reason having High quantum yield.
4. Define thermodynamic process? Explain its different types?
5. Derive $C_p - C_v = R$
6. Explain phase giving different examples?
7. State first law of thermodynamics? Also explain (a) Heat Changes and (b) Heat Capacity?

Q.3 Answer any 4 questions. Each question carries 07 marks

[4*7=28]

1. Write a note on : The Jablenski diagram.
2. Discuss with proper example the reason having High and Low quantum yield.
3. Describe briefly about Carnot cycle?
4. Write a note on water system?
5. Write different statements for second law and third law of thermodynamics?