REGD. NUMBER

SRINIX COLLEGE OF ENGINEERING

3rd INTERNAL EXAMINATION-2021-22

Subject-**CHEMISTRY**   Semester-**1ST**   Branch-**SEC-A**

Full Mark-**100**   Time-**2.30Hrs**

ANSWER ALL THE QUESTIONS (PART-A)   [2X10=20]

1. Define Calorific value of fuel.
2. Define Corrosion.
3. Define Gross Calorific Value of fuel.
4. State the two conditions for wet corrosion to take place.
5. Define Triple Point.
6. What is Nanomaterial?
7. What do you mean by Phase rule?
8. Which phase rule is applicable for two component system?
9. What is Component?
10. What happens when a molecule absorbs Ultraviolet radiation?

ANSWER ALL THE QUESTIONS (PART-B)   [6X8=48]
1. Describe Water System with diagram.
2. Explain Water-line corrosion.
3. Explain Pitting Corrosion.
4. Explain electrochemical theory of corrosion.
5. Describe Galvanization process.
6. Explain with diagram Tinning process.
7. Explain Top-down approach Nanomaterial.
8. Explain Bottom –Up approach nanomaterial.

ANSWER ALL THE QUESTIONS (PART-C)   [16X2=32]

1. Describe Schrodinger Wave Equation in 3-dimensions with derivation

2. The rotational constant B for $^1H^{35}Cl$ is 10.5909cm^{-1}. Determine the rotational constant for $^2H^{35}Cl$ and $^1H^{37}Cl$.