

**APPLIED CHEMISTRY-II**

**2<sup>ND</sup> Exam /Common/2254/2451/5424/ Nov'16**

**Duration : 3 Hrs**

**M. Marks : 75**

**SECTION –A**

**Q.1 Fill in the blanks**

**1x10=10**

- Slow but continuous eating away of the metal by the chemical action with surrounding is called \_\_\_\_\_.
- Coating of iron with zinc by hot dipping method is called .....
- Slag is a product of ..... and .....
- Brass is mainly a mixture of ..... and ..... metal.
- Producer gas is mixture of ..... and .....
- Carbon monoxide is ..... toxic than CO<sub>2</sub>.
- The unit of heat is .....
- Acid refractories are resistant to .....
- Pigment varnish is called .....
- PAN means .....

**Q.2 State True or False**

**1x5=5**

- All ores are minerals.
- Brass is ferrous alloy.
- Ultra mine is a white pigment.
- Nylon66 is a copolymer.
- Scale formation in boiler cause wastage of fuel.

**SECTION-B**

**Q.3 Note: Attempt Any Six question**

**6x5=30**

- Explain Roasting and calcination?
- Explain electromagnetic separation process for the concentration of ores?
- Define fire point, viscosity, viscosity index, pour point and cloud point of oil?
- Comparison of chemical and electro-chemical corrosion?
- What is fuel? What are the characteristic of good fuel?
- Differentiate between thermoplastic and thermosetting plastic with example?
- What are refractories? What are the characteristic of good refractories?
- What is water Pollution? Give the sources of water pollution?

**SECTION -C**

**Q.4 Attempt any Five questions:**

**5x6=30**

- Differentiate between addition polymer and condensation polymer?
- Define the term lubricant? What are the function of lubricant?
- What is biogas? Give its composition and uses?
- Distinguish between octane number and cetane number?
- A sample of coal contains 60% carbon, 33% oxygen, 6% hydrogen, 0.5% sulphur, 0.3% nitrogen and 0.2% ash. Calculate gross calorific value of coal?
- What are the theories of corrosion? Describe briefly the acid theory?
- What is acid rain? What are its harmful effects?
- Explain.
  - Zone Refining process
  - Froth floatation process