

S.B. Roll No.....

APPLIED CHEMISTRY-II
2nd Exam/Common/2254/Nov'18

Duration: 3Hrs.

M.Marks:75

SECTION-A

Q1. Fill in the blanks. (Any ten)

10x1.5=15

- a. Flux + gangue = _____
- b. Producer gas is a mixture of CO and _____
- c. Viscosity of a lubricant _____ with increase in temperature.
- d. A good lubricant should have _____ boiling point.
- e. Annealing is the process to make steel _____ in nature.
- f. _____ the pH, greater is the corrosion.
- g. _____ glass is used in making laboratory apparatus.
- h. Silica is a type of _____ refractory.
- i. Nylon-66 is an example of _____ polymer.
- j. The monomer unit of PVC is _____
- k. Units of viscosity are _____
- l. A good fuel has _____ calorific value.
- m. _____ is the major component of natural gas.

SECTION-B

Q2. Attempt any ten questions.

10x3=30

- i. How is biogas produced? Name its main constituents.
- ii. What are composite materials? Give an example.
- iii. Give applications of solid lubricants. Also give an example.
- iv. What is the purpose of making alloys?
- v. Explain flash point and fire point of a lubricant.
- vi. What is the difference between thermoplastic and thermosetting polymers?
- vii. Give one use of a) soda lime glass b) flint glass c) borosilicate glass.
- viii. Define polymerization and degree of polymerization.
- ix. What is the difference between erosion and corrosion?
- x. Define calorific value of a fuel. Which variety of coal has the highest calorific value?
- xi. What are the advantages of gaseous fuels?
- xii. What are the characteristics of a good refractory material?
- xiii. Name the various constituents of paint.
- xiv. Define the term galvanization.
- xv. Explain greenhouse effect.

SECTION-C

Attempt any three questions.

3x10=30

- Q3.** a) Define: **i) metallurgy ii) mineral iii) ore iv) gangue v) flux** **5**
b) Give composition and uses of **i) brass ii) bronze** **5**
- Q4.** a) Explain the heat treatment methods to prevent corrosion of metals. **5**
b) Explain the process of cementation. **5**
- Q5.** a) What are the characteristics of a good fuel? **5**
b) Give composition and uses of a) water gas b) producer gas **3**
c) What are anti knock compounds? Give two examples. **2**
- Q6.** a) What are refractories? Explain its types with examples. **5**
b) What is enamel? What are the constituents and applications of enamels? **5**
- Q7.** a) Explain addition and condensation polymers with examples. **5**
b) What are the characteristics of a good lubricant? **5**