

S. B. Roll. No.....

**APPLIED CHEMISTRY-II**  
**2<sup>nd</sup> Exam/Common/4553/Dec'22**  
**(For 2018 Batch Onwards)**

Duration: 3Hrs.

M.Marks:75

**SECTION-A**

**Q1. Fill in the blanks.**

15x1=15

- Flux + gangue = \_\_\_\_\_
- Producer gas is a mixture of CO and \_\_\_\_\_
- Viscosity of a lubricant \_\_\_\_\_ with increase in temperature.
- A good lubricant should have \_\_\_\_\_ boiling point.
- Annealing is the process to make steel \_\_\_\_\_ in nature.
- \_\_\_\_\_ the pH, greater is the corrosion.
- \_\_\_\_\_ glass is used in making laboratory apparatus.
- Silica is a type of \_\_\_\_\_ refractory.
- Nylon-66 is an example of \_\_\_\_\_ polymer.
- The monomer unit of PVC is \_\_\_\_\_
- Units of viscosity are \_\_\_\_\_
- A good fuel has \_\_\_\_\_ calorific value.
- \_\_\_\_\_ is the major component of natural gas.
- Oxide ores are concentrated by the process of \_\_\_\_\_
- \_\_\_\_\_ Coal contains highest percentage of carbon.

**SECTION-B**

**Q2. Attempt any ten questions.**

10x3=30

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

**SECTION-C**

**Attempt any three questions.**

3x10=30

- Q3.** a) Define:    a) metallurgy b) mineral c) ore d) gangue e) flux (5)  
b) Give composition and uses of                      a) brass                      b) 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 an 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)