## DR. S.S.BHATNAGAR UNIVERSITY INSTITUTE OF CHEMICAL ENGINEERING AND TECHNOLOGY PANJAB UNIVERSITY CHANDIGARH $\text{B.E. CHEMICAL 4}^{\text{TH}} \text{ YEAR}$

## SUBJECT: PROCESS ENGINEERING ECONOMICS

- Q1. (a)Define nominal and effective rate of interest.
- (b) A person deposits Rs. 5000 per month in a pension fund for 30 years. Rate of interest is 8.5% per year. The deposits may be considered to be made at the end of each month. After 30 years he wants to withdraw an equal amount of each year for 25 years. How much money he can withdraw every year? (3,6)
- Q2. The original cost of an equipment is Rs. 60,000. The replacement value at the end of useful life of 6 years is Rs. 50,000. Maintenance cost per year is Rs. 15,000. Money is worth 10% per year. What is the capitalized cost of the equipment? (6)
- Q3.(a) Explain insurance and its types?
- (b) write a note on working capital. (5,5)