

Roll Number: _____

Thapar University Patiala

Department of Electrical & Instrumentation Engineering

BE- Free Elective MSE

EE-029: Energy Auditing and Management

March 2010

Time: 02 Hours; MM: 30

Name of Faculty: Dr Mandeep Singh

Note: Attempt all the questions. All questions carry equal marks.

Q1. A sample of coal from the mine is found to contain 67.2% carbon and 22.3% ash. The refuse obtained at the end of combustion is analyzed to contain 7.1% carbon and the rest is ash. Compute the % of the original carbon unburnt in the refuse. (5)

Q2. What are the different steps involved in PERT planning? What are the benefits of PERT? (5)

Q3. Annual savings after replacement of boiler for three years is Rs. 5, 00,000, Rs. 5, 50,000, Rs. 6, 50,000. Total project cost is Rs 13.5 lakh. Considering cost of capital as 12%, what is the net present value of the proposal? (5)

Q4. Briefly describe the economic reforms in coal, oil and natural gas and electricity sectors. (5)

Q5. List steps involved in 'detailed energy audit'. (5)

Q6. What are the five different types of contracts involved in project management system? (5)

