Assignment 1

Unit 2 - Week 1

Course outline
- Unit 2: Direct Front 
- Week 1: Direct Buses

Assignment 1

1. Which of the following taxonomy is used in the control of distribution systems?
   - A. Direct Buses
   - B. Voltage Lift
   - C. Single Loop
   - D. Manual Distribution System

2. The paring number of a radial power system is:
   - A. 1
   - B. 2
   - C. 3
   - D. 4

3. The terms for the control of a radial power system include:
   - A. Distribution Transformer
   - B. Distribution Line
   - C. Distribution Switch
   - D. All of the above

4. The method of control of a radial distribution system is:
   - A. Remote Control
   - B. Local Control
   - C. Manual Control
   - D. All of the above

5. a) The ratio of maximum demand and minimum demand known as:
    - A. Surge
    - B. Load Factor
    - C. Peak Demand
    - D. Energy Demand

  b) A load energy consumption due to the system is given by the following formula: (kWh = MWh * hours / 1000)

6. The diagram represents a direct bus configuration as shown in the figure below. (Figure not shown)

   - A. Correct
   - B. Incorrect

7. Which of the following statements is correct?
   - A. Direct Buses only have busbars in between
   - B. Direct buses and double busbar
   - C. Direct bus and single busbar
   - D. All of the above

8. A load survey is measured by adding up the relationship between energy consumption and service load. (Figure not shown)

   a) Which of the following is the correct formula for calculating energy consumption?
      - A. Energy Consumption = Service Load * Time
      - B. Energy Consumption = Service Load / Time
      - C. Energy Consumption = Service Load - Time
      - D. Energy Consumption = Service Load / Time

b) Which of the following is the correct formula for calculating overall energy consumption?
   - A. Overall Energy Consumption = Service Load * Time
   - B. Overall Energy Consumption = Service Load / Time
   - C. Overall Energy Consumption = Service Load - Time
   - D. Overall Energy Consumption = Service Load / Time

9. A microwave and an electronic load are connected as shown in the figure below. (Figure not shown)

   a) Which of the following is the correct calculation for the overall power consumption?
      - A. Overall Power Consumption = Microwave Power Consumption + Electronic Load Power Consumption
      - B. Overall Power Consumption = Microwave Power Consumption - Electronic Load Power Consumption
      - C. Overall Power Consumption = Microwave Power Consumption / Electronic Load Power Consumption
      - D. Overall Power Consumption = Microwave Power Consumption - Electronic Load Power Consumption

b) Which of the following is the correct calculation for the overall energy consumption?
   - A. Overall Energy Consumption = Microwave Energy Consumption + Electronic Load Energy Consumption
   - B. Overall Energy Consumption = Microwave Energy Consumption / Electronic Load Energy Consumption
   - C. Overall Energy Consumption = Microwave Energy Consumption - Electronic Load Energy Consumption
   - D. Overall Energy Consumption = Microwave Energy Consumption / Electronic Load Energy Consumption

10. The diagram represents a direct bus configuration as shown in the figure below. (Figure not shown)

    - A. Correct
    - B. Incorrect

11. The peak load demand is the load demand at which the load is:
    - A. Maximum
    - B. Minimum
    - C. Average
    - D. None of the above

12. The transmission and distribution system is:
    - A. Mains network
    - B. Distribution network
    - C. Mains and distribution network
    - D. None of the above

13. Which of the following statements is/are true?
    - A. The total load on the system is the sum of the load on each section
    - B. The maximum load demand is the load demand at which the load is maximum
    - C. The minimum load demand is the load demand at which the load is minimum
    - D. All of the above

14. The efficiency of a distribution system is:
    - A. Voltage Lift
    - B. Distribution Transformer
    - C. Distribution Line
    - D. All of the above

15. A distribution system is one in which the load is distributed as shown in the following figure. (Figure not shown)

    - A. Correct
    - B. Incorrect

16. The efficiency of a distribution system is:
    - A. Voltage Lift
    - B. Distribution Transformer
    - C. Distribution Line
    - D. All of the above

17. The input power to the system is:
    - A. Voltage Lift
    - B. Distribution Transformer
    - C. Distribution Line
    - D. All of the above