



Daffodil International University

Department of Computer Science and Engineering

Faculty of Science & Information Technology

Mid-Term Examination, Semester: Spring 2017

Course Code: CSE-112

Course Title: Computer Fundamentals

Sections: All

Course Teachers: All

Time: 1:30 Hours

Full Marks: 25

Answer any five questions

1. a) Which one manages the resources of a computer system? Describe it. 3
b) What are the differences between data and information? 2
2. a) Who is the inventor of "Difference Engine"? Draw the basic organization of the computer. 3
b) Why computer is considered as a system? 2
3. a) Perform the following conversions: 3
i. $7BD_{16} = (?)_{10}$
ii. $352_6 = (?)_4$
b) What are the differences between primary and secondary storage? 2
4. Construct the logic gate for the given boolean expressions: 2.5*2=5
a) $x \cdot \overline{y \cdot z} + x \cdot z + y \cdot x + \overline{z}$
b) $\overline{A} \cdot B + \overline{C} + (\overline{A} \cdot P) \cdot (\overline{C} + D)$
5. a) Find out the corresponding boolean expression for the given circuit diagram : 3

b) Prove the following theorem by using Postulates: $X + X \cdot Y = X$ 2
6. a) Perform the following operations: 3
i. $11100110 \div 110$
ii. 11011×1001
b) What are the limitations of a computer system? 2