

B.TECH. (AEROSPACE ENGINEERING) (BTAE)

Term-End Examination

December, 2012

BAS-006 : COMPUTER FUNDAMENTALS

Time : 3 hours

Maximum Marks : 70

Note : *Attempt any seven questions. All questions carry equal marks. Use of calculator is permitted.*

1. (a) Define and distinguish between data and information. **5+5**
- (b) What do you understand by input unit ? What is its significance ? What does computer input consist of ?

2. (a) Explain briefly the major innovations of : **5+5**
 - (i) First generation computers,
 - (ii) Second generation computers,
 - (iii) Third generation computers, and
 - (iv) Fourth generation computers
- (b) What do you understand by the term "Super Computer" ? Give the name of a Super Computer installed in India.

3. (a) What is the difference between an object and a class ? 5+5
- (b) What will be the result of following two expressions if $i = 10$ initially ?
- (i) $++i <= 10$
- (ii) $i++ <= 10$
4. (a) Suppose A, B, C are integer variables where $A=3, B=3, C=-5$, and X and Y , are float variables where $X=8.8$ and $Y=3.5$, Determine the value of the following expressions :
- (i) $A \% C$ (ii) $A * B / C$
- (iii) $(A * C) \% B$ (iv) X / Y
- (v) $X / (X + Y)$
- (b) What is a modem ? What is its function ?
5. (a) Differentiate between Internet and Intranet. 5+5
- (b) What are the advantages and disadvantages of E-mail ?
6. (a) What is the importance of a Primary Key in a table ? Explain with a suitable example. 5+5
- (b) Explain the Storage Management function of an operating system.

7. (a) Write a C++ program to accept integers and print the largest of the three. 5+5
(b) What is the significance of documentation ?
8. (a) Determine the decimal equivalent of $(10110011)_2$ 5+5
(b) Determine the octal equivalent of $(432267)_{10}$
9. (a) Compute the addition of the hexadecimal numbers $(A27 E9)_{16}$ and $(6F B43)_{16}$. 5+5
(b) Explain Data Base Management System (DBMS) with the help of suitable example.
10. (a) Write a C++ program that gives the user the option of converting Fahrenheit to Celsius or Celsius to Fahrenheit temperature. Depending upon user's choice, the program carries out the conversion. 5+5
(b) Write a C++ program to compute factorial of an input integer.
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