| BAS-006 |

B.Tech. AEROSPACE ENGINEERING (BTAE)

Term-End Examination

December, 2017

BAS-006 : COMPUTER FUNDAMENTALS

Time : 3 hours *Maximum Marks : 70*

Note : (i) *Answer any seven questions .*

(ii) *All questions carry equal marks.*

(iii) *Use of scientific calculator is permitted.*

1. (a) Distinguish between input units and output 5+5
   units of a computer. Give suitable examples
   in support of your answer.

   (b) What is the meaning of the term "Volatile
   memory"? Distinguish between internal
   and external memory.

2. (a) What is the difference between a keyword 5+5
   and an identifier ?

   (b) Write two major differences between Object
   Oriented Programming and Procedural
   Programming.

3. (a) Differentiate between data and information. 5+5

   (b) What are the functions performed by the
   ALU ? Is it an independent unit ? If not,
   which unit does ALU work in coordination
   with ?

4. Write a C^{++} program to tabulate the function : **10**

$$f(x) = \frac{x^3 - 1.5x^2 + 10x - 5}{x - 4}$$

for $x = -20$ to 20

x should take values

$-20, -18, -16, \ldots 16, 18, 20.$

5. Explain the following terms/phrases/keywords with the help of an example/diagram if needed :

5x2=10

(a) Mail merge

(b) Logical AND Function in MS Excel

(c) Find and Replace in MS word.

(d) MIN and MAX Function in SQL.

(e) Impact Printer and Non Impact Printer.

6. (a) Write a program to evaluate the function **5+5** $y = x^N$.

(b) Write a C^{++} program to find the factorial of a number.

7. (a) List various types of system software and **5+5** explain one of them.

(b) Describe briefly the use of graphics in word processor software.

8. (a) Explain the various relationship among **5+5** entity.

(b) Discuss the differences between external, internal and conceptual schema and subschema.

9.   (a)   Determine the Octal equivalent of $(010111)_2$ 5+5

      (b)   Determine the decimal equivalent of $(456)_8$

10.   (a)   Determine the Octal equivalent of   5+5 $(5DF247)_{16}$

      (b)   Determine the decimal equivalent of $(10110011)_2$

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