

**B.TECH. IN AEROSPACE ENGINEERING
(BTAE)**

01448

Term-End Examination

June, 2010

BAS-006 : COMPUTER FUNDAMENTALS

Time : 3 hours

Maximum Marks : 70

Note : Answer seven questions in all.

Question number 1 is Compulsory.

1. State whether the following statements are **10**
true or false :
- (a) F7 function key is used in Microsoft word to check the spelling and grammar.
 - (b) Concurrent access by multiple users is possible in file processing system.
 - (c) The overall design of a database is called database schema.
 - (d) A quantity which does not change during the execution of a program is called a constant.
 - (e) Magnetic disk does not support direct access of data.
 - (f) VDT acts as an input as well as an output device.

- (g) A primary key with a combination of other attributes for unique identification is called super key.
- (h) Multiple copies of letters can be generated with different addresses through the mail - merge facility.
- (i) Unix is a single - user, multi - tasking operating system.
- (j) Registers are used to hold information on a temporary basis, and are part of the CPU.

Answer *any six* of the following :

- 2. (a) What are registers ? Name some of the commonly used registers, and briefly describe the function of each. 5
- (b) Draw the block diagram to illustrate the basic organization of computer system and explain the function of various units. 5
- 3. (a) Explain the differences between 'while' and 'do while' statements in C programming language with the help of example(s). 4
- (b) A 5 digit positive integer is entered through keyboard, write a function using C programming language to calculate the sum of these 5 digits of the number. 6

4. (a) What is mail merge ? Explain the use of mail merge in Microsoft word. 5
- (b) List out the various computer generations along with the key characteristics of computers of each generation. 5
5. (a) Define the term file organization. Write down the disadvantages of file processing system. 5
- (b) Differentiate between file processing system approach and Database approach. 5
6. (a) What is a pointer ? Write a program in C programming language using pointers to display the contents of a variable and its address. 5
- (b) Define the terms Data Abstraction, Schema and Instance with the help of one example each. 5
7. (a) Explain the terms fields and records in DBMS with the help of an example. 4
- (b) List the data types and different types of keys that are used in SQL. 6
8. (a) What is cache memory ? Explain how the cache memory helps in improving the overall processing speed of a computer system. 5
- (b) Convert the following decimal numbers to octal, hexadecimal and binary. 5
- (i) 25.5 (ii) 32.125

9. (a) Explain the use of INSERT command in SQL. Write the syntax for it. 5
- (b) Explain the different functions used in SQL with the help of examples. 5
10. (a) Explain call by value and call by reference used in C programming with the help of example(s). 6
- (b) What is magnetic disk ? Explain the different types of magnetic disks. 4
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