

**B.Tech. AEROSPACE ENGINEERING
(BTAE)**

Term-End Examination

00128

June, 2016

BAS-006 : COMPUTER FUNDAMENTALS

Time : 3 hours

Maximum Marks : 70

Note : Answer any seven questions. All questions carry equal marks. Use of scientific calculator is permitted.

1. (a) Enlist the input devices and output devices of a computer. Give suitable examples in support of your answer, in real-time usage.
(b) What is the meaning of the term 'Volatile memory' ? Distinguish between volatile and non-volatile memory. 5+5

2. (a) What is the difference between a keyword and an identifier ? Explain each with one example.
(b) Write a 'C' program to calculate the area of a circle, the surface area of a sphere, and the volume of a sphere depending upon the user's choice. 5+5

3. (a) Describe the three levels of data abstraction.
- (b) What are the Navigation and Directory Control Commands in Linux ? 5+5
4. (a) What is system software ? Discuss various types of system software.
- (b) Describe briefly the use of graphics feature in MS-Word software. 5+5
5. (a) What are the functions performed by the ALU ? Is it an independent unit ? If not, which unit does ALU work in coordination with ?
- (b) Write various logical operations used in MS-Excel. Explain each with one example. 5+5
6. (a) Write a 'C' program to compute and print the roots of a quadratic equation, i.e, $ax^2 + bx + c = 0$ and classify the roots.
- (b) Explain in brief the use of Relational Database Management System in relation to Aerospace Engineering. 5+5
7. (a) Explain 'Field', 'Record' and 'Table' with respect to DBMS.
- (b) Define 'Spreadsheet'. Explain in brief about the various components of a spreadsheet. 5+5

8. (a) Write a 'C' program to read a list of names and sort the list in alphabetical order.
- (b) Write the syntaxes of any three string functions used in 'C' language. 7+3
9. (a) Write a program in 'C' to read an integer number and compute the sum of individual digits of that number.
- (b) What is 'mail merge' feature of MS-Word ? Write step-wise procedure to perform 'mail merge'. 5+5
10. Compute the following : $5 \times 2 = 10$
- (a) Add the octal numbers 5647 and 1425.
- (b) The hexadecimal equivalent of $(2327)_8$.
- (c) Add the hexadecimal numbers $(A27E9)_{16}$ and $(6FB43)_{16}$.
- (d) Subtract $(2761)_8$ from $(6357)_8$.
- (e) The binary difference of $(11100011 - 10101000)$.
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