

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

Term-End Examination

00293

June, 2018

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) What are the three main purposes of an operating system ?
(b) Draw the UNIX file system structure and explain in brief. 5+5

2. (a) How is an object different from a class ?
(b) What is the difference between Database and DBMS ? 5+5

3. 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 user's choice. 10

4. Write a C++ temperature-conversion programme that gives the user the option of converting Fahrenheit to Celsius or Celsius to Fahrenheit. 10

5. What do you understand by the term “Super Computer” ? Give the name of a super computer installed in India. 10
6. What is the importance of a Primary key in a table ? Explain with a suitable example. 10
7. (a) How are the computers of four different generations superior as compared to their previous models ?
- (b) List at least three advantages of computer based data processing over manual methods. 5+5
8. (a) Differentiate between Logical error and Syntax error.
- (b) What is the significance of cyber law ? 5+5
9. (a) Determine the hexadecimal equivalent of $(11001011)_2$
- (b) Determine the octal equivalent of $(359)_{10}$ 5+5
10. (a) Determine the hexadecimal equivalent of $(31\cdot57)_8$
- (d) Determine the binary equivalent of $(576E\cdot34DF)_{16}$ 5+5
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