AMRITA VIDYALAYAM

FIRST TERMINAL EXAMINATION 2018 -'19

Class : XI **Marks : 70**

Time : 3 hrs

COMPUTER SCIENCE (NO. 083)

GENERAL INSTRUCTIONS:
1. All questions are compulsory.
2. Programming Language: C++.

1. Name the three components of the central processing unit. **1**
2. Briefly distinguish between digital computer and analog computer. **2**
3. Explain system software with its functions and give suitable examples of each. **5**
4. Convert the following into its equivalents. **4**
   a) $(4238.25)_{10}$ -> (?) $_2$ b) $(3725)_8$ -> $(?)_{10}$ c) $(706)_8$ -> $(?)_{16}$ d) $(EA54)_{16}$ -> $(?)_{10}$
5. Find the eight bit two's compliment form of the following numbers. **2**
   a) -49 b) -123
6. What are the bases of decimal, octal, binary and hexadecimal number systems? **2**
7. What are the basic characteristics used to differentiate microprocessors? **1**
8. Expand the following terms. **1**
   a) RISC b) EPIC
9. What is cache memory? What are the two main types of cache memory? Explain. **4**
10. What is the difference between an object and a class? **2**
11. Explain the basic concepts of OOP with examples. **5**
12. What are the short comings of procedural and modular programming? **3**
13. Write the statements for each situation described below. **2**
    a) To print the value of the integer variable avg.
    b) Increase the value of a variable e by 2.
    c) To print the string 'AMBHA'
    d) Assign the character P to the char variable c.
14. Correct the errors in the following program and write the corrected version. **3**

```
void main()
{
cout>>"Enter two variables:";
cin<<a<<b
m=a*b;
cout<< The multiplication is: <<m;
getch();
```

15. Write a C++ program to find the modulus of two integers. **3**
16. Why is it important to `include<iostream.h>` in C++ programs? **2**
17. What are the predefined stream objects in C++ ? **3**
18. What is an atomic data type? Write any two examples. **2**
19. Rewrite the following program after removing error(s) and underline each correction. **2**

```
#include<Iostreamh>
int  main
{
      int l=10 b=40:
      cout>> l*b;
      return 0;
}
```

20. What is a variable ? How many values are associated with it? **3**

21. What output will the following code fragment produce? **2**

```
int discount, amount=1000,result;
cin>>discount;
result=amount+discount>1750?400:200
cout<<result;
```

22. What is a selection Statement? Explain it with the help of an example. **3**

23. Write a C++ program to check the voting eligibility of a person using if statement. **3**

24. Differentiate between implicit and explicit type conversion. **2**

25. Predict the Output. **2**

```
int  a=10;
cout<<++a;
a+1;
cout<<a;
```

26. Given the following expressions. **2**

a) a=5; b) a= =5;

How are these different?

27. What is the difference between "A" and 'A' in C++? **2**

28. Identify the invalid identifiers from the following: **2**

a) Myschool b) 1_abc c) _check d) int