

INTERNATIONAL INDIAN SCHOOL, DAMMAM  
FIRST TERMINAL EXAMINATION 2015-2016

SUB: COMPUTER SCIENCE  
CLASS: XI

MAX MARKS: 70  
TIME: 3Hrs.

SET A

1. Give two major innovations of first generation computers. 1
2. Expand: i) UNIVAC ii) EDVAC 1
3. Define system software. Give two examples of system software. 2
4. Explain time sharing and distributed operating system. 2
5. What is the difference between shareware and proprietary software? 2
6. What are utilities? Mention any two utilities available in the system. 2
7. Explain processor management and file management function of an operating system. 2
8. Define the following:- 3
  - i) Demand paging
  - ii) Throughput
  - iii) Compiler.
9. What are literals in C++? 1
10. What is the purpose of default clause in a switch statement. 1
11. What are data type modifiers? Name the four data type modifiers available in C++. 2
12. Which of the following can be used for naming a variable? 1  
Stud#name, S\_Name, while, 123emp, ELSE
13. Write C++ expressions for the following: 2
  - i)  $x = \frac{-b + \sqrt{b^2 - 4ac}}{2a}$
  - ii)  $V = \frac{4}{3} \pi r^3$
14. Given the following code fragment: 2  

```
int ch = 5;  
cout<<ch<<"\n"<<++ch<<"\n";
```

  - (i) What output does the above code fragment produce?
  - (ii) What is the effect of replacing ++ch with ch+1?

15. What is the order of evaluation of the following C++ expression? 2
- i) `a<!b+10||c>d&&d<a`
- ii) `q-r+p++&& x*y + z % p`
16. Evaluate the following, where p, q are integers and r, f are floating point numbers. 2  
The value of p=8, q=4 and r=2.5
- (i) `f = p * q + p/q`
- (ii) `r = p+q + p % q`
17. Differentiate between logical **OR** and logical **AND** operator. 2
18. Convert the following as directed: 1
- i) **for loop to while loop:**
- ```
for(int i=2, sum=0; i<=20; i=i+2)
sum+=i;
```
- ii) **if-else to switch:** 2
- ```
int x,y,z;
cin>>x>>y>>z;
if (x==1)
cout<<x*y+5;
else if (x==2)
cout<<x+2+y;
else if (x==3)
{
z=(x*y*5)/2;
cout<<z;
}
else cout<<x<<' '<<y<<' '<<z;
```
19. i) What is the difference between while and do-while loop? 2
- ii) What do you mean by type casting? 1
20. Rewrite the following C++ program after removing all the syntax error(s), if any: 2
- i) `#include(iostream.h)`
- ```
void main()
{
const MAX=0;
int a, b;
cin<<a>>b;
if a>b
MAX=a;
getche();
}
```

ii) #include<iostream.h>  
void Main() 2  
{  
int r; w=90;  
w-50=r;  
for(int i=0 , i<10 ; i++)  
if(w % i== 0)  
cout<<w+r;  
}

21. Give the output of the following code:-

i) #include<iostream.h> 2  
void main()  
{  
int i = 0, x = 0;  
do  
{  
if(i%5==0)  
{  
cout<<x;  
x++;  
}  
++i;  
}while(i<10);  
cout<<"\n"<<x;  
}

ii) for(i=0; i<10;++i) 2  
{  
for(j=2; j<i; ++j)  
{  
if(i%j==0)  
break;  
}  
if(i==j)  
cout<<i<<"\n";  
}

22. How many times will the following loop execute? 1

```
int s=0, i=0;  
do  
{  
s+=i;  
i++;  
} while(i<5);
```

23. What will be the output of the following program segment? 2

If input is: (a) g (b) e (c) b (d) p

```
cin>>ch;
switch(ch)
{
    case 'g': cout<<"Good";
    case 'b': cout<<"Bad";
        break;
    case 'e': cout<<"Excellent";
        break;
    default: cout<<"Wrong Choice";
}
```

24. Write a program find the sum of even digits of a given number. 3

(eg. If the number is 1234 then output should be 6 (i.e. 2+4))

25. Write a program to calculate and print roots of a quadratic equation  $ax^2+bx+c=0$  ( $a \neq 0$ ). 4

26. Write a program to check whether a given number is positive or negative. If positive, check whether it is divisible by 3 and if negative check whether it is divisible by 7. 3

27. Write a program to find the smallest of three numbers using conditional operator. 3

28. Write a program to calculate area of circle , rectangle or a triangle depending upon user's choice. 4

29. Write a program to check whether a number is prime or not. 3

30. Write a program to print the following pattern 3

```
6 8 10
12 14
16
```

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