

**COUNCIL OF CBSE AFFILIATED SCHOOLS IN THE GULF**  
**GULF SAHODYA EXAMINATION (SAUDI CHAPTER) – FEBRUARY 2009**  
**COMPUTER SCIENCE**

CLASS: XI

TIME: 3 HRS

MARKS: 70

**INSTRUCTIONS:**

1. All questions are compulsory.
2. Marks are indicated against each question.
3. Programming must be done in C++.

**QUESTIONS:**

- |     |   |     |
|-----|---|-----|
| 1.  | Expand: (i) ENIAC (ii) EDSAC  | (1) |
| 2.  | Define Operating System. What are its functions?                                  | (2) |
| 3.  | What are the two units for measuring CPU clock speed? How do they differ?         | (2) |
| 4.  | What is the significance of Task Bar?   | (2) |
| 5.  | Convert $(4A8B)_{16}$ to binary.  | (1) |
| 6.  | Convert $(4095)_{10}$ to octal.   | (1) |
| 7.  | What is a port? Give some Examples.   | (2) |
| 8.  | Define (i) Robustness (ii) Guard Code   | (2) |
| 9.  | What is the role of comments and indentation in a program?                        | (2) |
| 10. | What is syntax and semantic error? Give examples.                                 | (2) |
| 11. | Why is program maintenance required? What are the different kinds of maintenance? | (2) |
| 12. | Mention some uses of documentation.   | (2) |
| 13. | What do you mean by transitive nature of inheritance?                             | (2) |
| 14. | What are literals in C++? How many types of literals are allowed in C++?          | (2) |

15. What is a reference variable? How is it different from typedef command in C++? (2)
16. What will be result of the following if ans is 6 initially? (1)  
 (i) cout<<ans=8;  
 (ii) cout<<ans==8;
17. Evaluate the following C++ expression, where a,b,c are integers. The value of a = 5 and b = 3; (1)  
 c=a-(b++)\*(--a);
18. Find the output of the following program: (2)  

```
#include<iostream.h>
void main()
{int x=10,y=5;
for(int i=1;i<=2;i++)
{cout<<"value1="<<x++<<":"<<y-2<<endl;
cout<<"value2="<<++y<<":"<<x+3<<endl;}}

```
19. What is the result of the following expression? (1)  
 Y=((t=4,t+3),(t-2,t\*3))
20. Identify errors, if any, in the following program: (2)  

```
#include <iostream.h>
main()
{ int sum[6,3],l,j;
sum[1,1]=0;
cout<<sum;}

```
21. What is variable? How many values are associated with it? (2)
22. Write a program to print every integer between 1 and n divisible by m. Also report whether the number that is divisible by m is odd or even. (4)
23. Write a program to count the number of occurrences of a given character in a string. (4)
24. Write a program to swap the first half of the elements with the second half of the elements in an one dimensional array. Assume that the size of the array is even. (4)  
 For eg: given array: A[]={2,3,4,5,6,7} resultant array: A[]={5,6,7,2,3,4}
25. Write a program to print the transpose of a matrix. (4)

26. Write a function to swap two numbers using call by reference. Write the main to invoke this function. (4)
27. Write a C++ function that intakes two arguments: a character and an integer and prints the character given number of times. If, however the integer is missing the function prints the character twice. (4)
28. Find the output of the following program: (3)
- ```
#include<iostream.h>
void execute(int &b,int c=100)
{int temp = b+c;
b+=temp;
if (c!=100)
cout<<temp<<b<<c<<endl;}
void main()
{int m=90,int n=10;
execute(m);
cout<<m<<n<<endl;
execute(m,n);
cout<<m<<n<<endl}
```
29. In the following program , if the value of N given by the user is 15, what maximum and minimum values the program could possibly display? (2)
- ```
#include<iostream.h>
#include<stdlib.h>
void main()
{int N,guessme;
randomize();
cin>>N;
guessme=random(N)+10;
cout<<guessme<<endl;}
```
30. Find the output of the following program: (3)
- ```
#include<iostream.h>
#include<ctype.h>
void encrypt(char t[])
{for (inti=0;t[i]!='\0';i+=2)
if(t[i]=='A' || t[i]=='E') t[i]='#';
else if (islower(t[i])) t[i]=toupper(t[i]);
else t[i]='@';}
void main()
{ char text[]="SaVE Earth";
encrypt(text);
cout<<text<<endl;}
```

31.

```
#include<iostream.h>
struct point
{int x,y;};
void show(point p)
{cout<<p.x<<':'<<p.y<<endl;}
void main()
Point u = {20,10},v,w;
v=u;
v.x+=20;
w=v;
u.y+=10;
u.x+=5;
w.x-=5;
show(u);
show(v);
show(w);}
```

(3)