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# Sample Paper

Computer Science – XI 2013

*B.S. Yadav*

Time: 3 Hrs

Max. Marks: 70

## General Instructions

- All questions are compulsory.
- Marks are indicated against each question.
- Read question carefully.

- Q1. What will be the size of following constants? 1  
`\b`, `"\b"`,
- Q2. Write the 1's Complement form of the following binary numbers: 1  
 100010111, 11101
- Q3. What do you mean by unary operators? Explain with suitable example. 2
- Q4. What do you mean by language processors? Why we need it? 2
- Q5. What is the difference between Runtime and Syntax errors? 2
- Q6. Define inheritance and polymorphism? 3
- Q7. What output will be the following code fragment produce? 2
- (a) `int val, res, n=1000;`  
`cin>>val;`  
`res = (n+val) >1750 ? 400 : 200;`  
`cout<<res;`  
 i) if the input is 2000      ii) if the input is 500
- (b) What will be the output of the following program segment? 3  
 If input is as: (a) g (b) b (c) e (d) p  
`cin >>ch;`  
`switch (ch)`  
`{ case 'g': cout<<"Good";`  
`case 'b': cout<<"Bad";`  
`break;`  
`case 'e': cout<<" excellent ";`  
`break;`  
`default: cout<<" wrong choice";`  
`}`
- (c) Determine the output: 2

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```

for(i=20;i<=100;i+=10)
{
j=i/2;
cout<<j<<" ";
}

```

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Q8. Write an alternative code for the following using switch-case construct: 2

```

char wish;
if( wish== 'a')
    cout<< " YOU WILL GETT 40 OUT OF 40";
else if( wish== 'b')
    cout<< " MY FRIEND WILL GET 40 OUT OF 40";
else if( wish== 'c')
    cout<< " TEACHER WILL NOT GIVE 40 OUT OF 40";
else
    cout<<"NO ONE WILL GET 40 OUT OF 40";

```

Q9. Evaluate X=a++ + --a; if a=20 initially? 2

Q10. What is type conversion? How many types of type conversion is allowed in c ++. Explain with example. 3

Q11. Write the header file for the given function 2

- (a) abs() (b) isdigit() (c) sqrt() (d) setw()

Q12. Fill in the blanks: 3

i)  $(100011101)_2 = (\quad)_10$

ii)  $(354)_8 = (\quad)_2$

iii)  $(A6D12)_{16} = (\quad)_8$

Q13. Write a program in c++ to calculate the commission for the salesmen. The commission is calculated as follows. 4

Sales Made	Commission Rate
30001 onwards	15%
22001 to 30000	10%
12001 to 22000	7%
5001 to 12000	3%
0 to 5000	0%

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Q14. Write a program in c++ to check whether a number is even or odd? 4

Q15. Find the error from the following code segment and rewrite the corrected code underlining the correction made. 2

```
#include(iostream.h)
void main ( )
int X,Y;
cin>>>X;
for(Y=0,Y<10, Y++)
if X= =Y
cout<<Y+X;
else
cout>>Y; }
```

Q16. How can you give a single line and multiline comments in C++ explain with suitable examples? 2

Q17. What is difference between '/' and '%' operators in c++ ? Explain with a example. 2

Q18. What is the difference between call by value and call by reference explain with suitable example 2

Q19. Write a program to find the roots of a quadratic equation. 3

Q20. Write a C++ program to print the Fibonacci series 4

Q21. Determine the number of bytes required to store an array A[5][15] of base type integer. Assuming the integer data type has size 4 bytes. 2

Q22. What is an Operating System? Explain its any two functions 2

Q23. How is a compiler different from interpreter? 2

Q24. Explain Break and Continue statement in C++ with example. 2

Q25. What is difference between Actual parameter and Formal parameter? Give an example in C++ to illustrate both type of parameters. 3

Q26. Expand the following: 2

(i) CPU (ii) ROM (iii) MICR (iv) OCR

Q27. Write a c++ program to compute the simple interest on a given amount and time. If the time is 2 years or more calculate it with 3% rate of interest and 5% otherwise. 4

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