Guess Paper - 2008
Class- XI
Subject - Computer Science
(By Mr.M.Ravi Kiran)
Time:3 Hrs.

## All questions are compulsory <br> $>$ Use C ++ as Programming Language

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1. (a) What is an operating system? Explain types of operating systems. 3
(b) Name any two characteristics(strengths) and weaknesses of a computer. 2
(c) Classify the types of computers. 3
2. (a) What are internal and external commands in Dos. Mention 2 examples for each. 3
(b) Explain about wild card characters. 1
(c) What is the difference between language and package? 1
(d) Name the services provided by an operating system and mention its functions. 3
3. (a) Write about the principles of object oriented programming. 3
(b) What is an algorithm? Write an algorithm to display numbers between 1 to 10 3
(c)Write an algorithm and draw flowchart to find the largest and smallest number out of a
Given list of 100 numbers.
(d) Differentiate between if and switch 1
(e) Differentiate between break and continue. 1
(f) Differentiate between while and do-while. 1
(g) What is difference between / and $\%$ operators in c++ ? 1
4. (a) Explain about various printers. 3
(b) Explain about various computer registers. 2

5 .(a) Write about various I/O Functions. 2
(b) What is the use of \#include directive. 1
(c) Explain about various storage class specifiers. 2
(d) Write the stages of program development process. 2
(e) Convert (i) (123) $)_{10}$ to ( $)_{2} \quad$ ii) (5D $)_{16}$ to ( $)_{10} \quad 2$
(f) How is an array different from,
i) a structure ii) a class.

6 .(a)Name the header file, to which following built-in functions belong
(i)gets() (ii)strcpy()
(b)Write a program to find the factorial of the number entered by the user. 2
(c) What will be the output of the following program.
\#include<iostream.h>
void main( )
\{

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    int }\textrm{x}=3\mathrm{ ; float }\textrm{y}=6\mathrm{ ;
    cout<<"\nThe value of y is" }<<x+10/y
```

        \}
    (d) Write a program to check whether the given number is Armstrong or not.
(e) The telephone office charges telephone bill according to following rules:

For the first 50 calls - Free of cost,
For the next 150 calls - 120 Paise per call,
Beyond 200 calls - 140 Paise per call.
Customers have to pay monthly rental of $100 \mathrm{Rs} /-$ also.
.WAP to read the number of calls and print out the telephone bill for that month.
(f) WAP in C++ to reverse a string, and also check whether the given string is palindrome or not.
(g) What will be the output.
(i) $x=\operatorname{pow}(3,2)$ (ii) $y=\operatorname{ceil(10.4)~(iii)~} z=a n s(-67)$ (iv) $y=\operatorname{strlen}(" u s a ")$
7.(a) Write a program for swapping of two numbers using call by value and call by reference methods.
(b) What will be the output of the following code fragment produce?
int $\mathrm{x}=10, \mathrm{y}=15, \mathrm{z}$;
$\mathrm{z}=\mathrm{y}++$;
cout<<z;
(d) Write the corresponding C++ expressions for the following mathematical expressions:
a) $\sqrt{ } \mathrm{X}$
b) $2-y^{2 y}+4 y$
(e) Construct function prototype for descriptions given below
(i) $\quad \operatorname{rarb}()$ takes no argument and has no return value
(ii) test( ) takes a float argument and returns an integer
7. (a) Design your own function to compute length of string( do not use ready made function
(b) Write a program to display prime numbers between 1 to 100 .
(c) What output will be the following code fragment produce? int val, res, $\mathrm{n}=1250$;
cin>>val;
res $=(\mathrm{n}+\mathrm{val})>1750$ ? $400: 200$;
cout<<res;
i) if the input is 1800
ii) if the input is 500
(d) Given the following set of identifiers:
char ch; int intval; long longval; float fl;
Identify the datatype of the following expressions:
a) ch -3 ;
b) intval * longval - ch

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