

Atomic Energy Central School, Kakrapar

Annual Examination (2015-16)

Class: XI

Time allowed: 3 hours

Subject: Computer Science

Maximum Marks: 70

Instructions:

- Some questions are having OR options, choose only one and mention that clearly in the answer sheet.
- Please check that this question paper contains 5 questions in 4 pages.
- Please write down the proper serial number of the question before attempting it.

- Q.No.
1. a) Draw the block Diagram of a Digital Computer and explain its functional units in brief. [3]
 - b) Write a short note on Segmented Memory management of operating system. [2]
OR
Write a short note on CPU Scheduling techniques of operating system.
 - c) Classify the computers. Differentiate between Analog and Digital Computers? [2]
OR
Name the inventions or models, which helped in the development of modern computers?
 - d) Write down the steps to create a shortcut icon of a file on desktop, which is originally located [1]
in the memory at C:\Sch\Open\File1.docx in windows?
 - e) Explain the types of services provided by Operating Systems. [2]
 - f) Explain the changes made in the 4th generation computers as compare to 1st gen. computers. [2]

- Q.No.
2. a) Write the following algebraic expression into C++ expressions: [1]

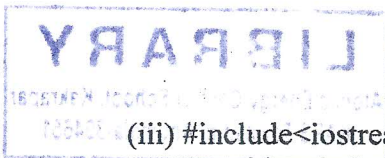
(i) $Z = X^2 + Y^2 - 2XY$ [1/2]

(ii) $Z = \sqrt{X^Y + Y^X}$ [1/2]

- b) Write the output for the following program code: [2]

```
(i) void main()
{
    int a = 15, b, c, d;
    b = ++a * 2;
    c = b-- + a++;
    d = c++ + --b;
    cout << a << " " << b << " " << c << " " << d << " ";
}
```

- (ii) void main() [1]
- ```
{ int a[5] = {6, 25, 33, 48, 51 }, i;
 for(i=0; i<5; i++)
 { if(a[i]%2==0)
 a[i]*=2;
 else
 a[i]-=2;
 cout << a[i] << " ";
 }
 getch();
}
```



[1]

(iii) #include<iostream.h>

```

void main()
{ int x=25, y=20, z;
 int pqr(int, int);
 z=pqr(x,y);
 cout<<z<<"\n";
}
int pqr(int a, int b)
{ int m;
 if(a>=b)
 m=a+2;
 else
 m=b+2;
 return m;
}

```

(iv) if a=12; b=0 then what will be the value of following expressions: [2]

- a) a && b || b && -2
- b) a= (a>=b)? b+25 : b-5;

c) Read the following code and answer the following questions: [2]

```

int maxx(int a, int b)
{ if(a>b)
 return a;
 else
 return b;
}
void main()
{ int x,y,z;
 cin>>x>>y;
 z=maxx(x,y);
 cout<<"maxx value is "<<z<<"\n";
}

```

- [i] What is scope of variable x and a? [1]
- [ii] What is the life time of variable z? [1/2]
- [iii] The underlined statement is known as..... [1/2]

d) Mark underlines for each error in the following program and also give explanation about the error occurs in the program. [2]

```

include< iostream.h>
void main();
{
 INT a,b, c;
 cout<<"enter the values\n";
 cin>>a>>b;
 c=sqrt(a+b);
 cout<<"the result is: "<<c;
}

```

Q.No. Solve the following Questions using C++:

- 3. a) What are Fundamental Data Types, give classification, syntax and memory size of each? [2]  
OR  
Give Classification of C++ Tokens, with examples.
- b) What is a variable? Give syntax to declare and initialize a variable in C++. [2]