

APEEJAY SCHOOL, SCHOOL, SHEIKH SARAI-I

Computer Science

Time allowed : 3 Hrs.

Class – XI-AB

Maximum Marks : 70

Section-A

1. (a) Explain the functional components (anatomy) of computer with the help of diagram. 2
- (b) Name all the types of computers. Explain anyone in brief. 3
- (c) Expand the term OS. Give any 2 functions of OS. 2
- (d) State the difference between compiler and interpreter. 2
- (e) Mention the difference between files and the folders. 1
- (f) What is the difference between system software and application software? 1
- (g) Give the full forms : ASCII, CU, EPROM, ALU 2
- (h) What is meant by microprocessor? 1
- (i) Give the process of the following in DOS and WINDOWS : 3
 - (a) make a directory with the name TEST.
 - (b) Copy all the files in it.
 - (c) Delete all the files.
- (j) Explain the booting process of DOS. 2
- (k) What are wildcards? Explain all the wildcards with the examples. 3

Section-B

2. (a) What is preprocessor directive? 1
 - (b) Name any 2 tokens of C++. 1
 - (c) Explain any 2 escape sequence characters with the help of example. 1
 - (d) Give 2 examples each of fundamental data types and explain in detail. 2
 - (e) Identify errors in the following variables :
 - (i) sales emp
 - (ii) Name-
 - (iii) Sub\$
 - (iv) R 2
4. (a) What is an object? How is OOPS different from Procedural paradigm? 2
 - (b) Explain any 2 characteristics of OOPS. 2
 - (c) What is the purpose of main(). 1
 - (d) Explain conditional operators with the help of an example. 1
 - (e) Define : array, subscript. 2

R/3

[P.T.O.]

5. (a) Write equivalent C++ statements for the following :
- (i) $\sqrt{x^3+y^3+z^3}$ 1
- (b) Give the output :
- (i) $T=(++i)*(i++)$, where $i=5$
- (ii) $((x>y)||!(z==y)&&(z<x))$, $x=10$, $y=5$, $z=11$ 2
- (c) Consider the following array declaration and give the number of elements and total number of bytes required to store each array :
- (i) `char st [7] [5];` (ii) `float num[5];`
- (iii) `int s[5]={4,5,6,7,8};` (1*3)
7. (a) What are the differences between for ... loop and while ... loop? Explain with the help of example. 2
- (b) Explain :
- `break`, `exit()`, `continue` 3
- (c) Name the header files for the following functions :
- (i) `sqrt()` (ii) `clrscr()`
- (iii) `gets()` (iv) `getchar()`
- (d) Rewrite the following code using select-case statement : 2
- ```

char grade;
cin>>grade;
if(grade == 'A')
 cout<<"FIRST POSITION";

else
if(grade == 'B')
 cout<<"SECOND POSITION";

else
 cout<<"THIRD POSITION";

```
- (e) Find the error : 3
- ```

void main
{
int i=9;a;
float num=10.9;
cin<<a;
while a<=i;
{

```

```

        a+=10;
        num=*a;
    }
}
(f) Give the output :
void main()
{
    int i=0,x=0;
    do
    {
        if(i%2==0)
        {
            count++;
            cout<<count;
        }
        i++;
    } while(i<10);
    cout<<"\n"<<cout;
}

```

2

8. (a) Write a program to enter a character from the user and convert it into the case. If entered value is uppercase change it to lower case and vice-versa. 2
- (b) Write a program to print Fibonacci no. between 1 and 20. 2
- (c) Write an interactive program in C++ to input the basic salary of 5 employees. Each one of them gets 25% of the basic as HRA (House Rent Allowance), 15% of the basic as Conveyance Allowance and 10% of the basic as Entertainment Allowance. The Total salary is calculated by adding Basic + HRA + Conveyance + Entertainment Allowance. Calculate how many out of 5 get total salary above Rs. 25000/- and also print the total salary of each person. 3
- (d) Write a program to print the sum of the series :
 $2/2! + 4/4! + 6/6! + \dots + n/n!$ 3
- (d) Write a program to display the following :
 1
 1 2
 1 2 3
 1 2 3 4
 1 2 3 4 5

3