

Annual Examination 2020
Sub-Informatics Practices (065)
Class-XI

M.Marks-70

Time-3 Hours

1. (a) What is an operating system? Give examples . 2
(b) What is bar code? Why is a bar code reader used? 2
(c) What is the difference between RAM and ROM? 1
2. (a) What will be the output produced by the following code fragments- 2
w, x, y, z = 21, 2, 3, 21
print(w/4)
print(w//4)
print(x**y)
print(z%y)
(b) Predict the output- 2
x=100
x=x+100
x=x-5
print(x)
x,y=x-5,190
print(x,y)
(c) Write a program in python to find the largest among three inputted numbers. 2

Or

Write a program in python to accept a character from the user and display whether it is vowel or consonant.

- (d) Predict the output: 2+2
 - (i) m=2
n=0
while m<10:
 n=n+m
 m=m+2
print(n)
 - (ii) for k in range(13,3,-2):
print(k* 2)

3. (a) Define string in python . Which operator returns true if a character/substring exists in a given string? 2
(b) What is a string slice? How is it useful? 2
(c) Write the uses of following functions in string- 2
len(), capitalize()
(b) Consider the string str="South Point School", Write statements in python to implement the following: 2
 - (i) To display the last three characters.
 - (ii) To display 1st to 5th characters .
 - (iii) To display first character in upper case letter.
 - (iv) To repeat the string 2 times.
- (c) What will be the output of the following programming code? 2
Str1="Class11 Final Examination"
print(Str1([2:]))
print(Str1([2:15:3]))
print(Str1([:17]))

- `print(Str1([-17:-3])`
- 4.(a) Define a list in python. Write command to create a empty list. 2
- (b) Consider the following list-
- `List1=[2,3,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19]`
- Write commands for the following: 5
- i. Add 20 at last
 - ii. Insert 4 at third position
 - iii. Sort the elements of the list
 - iv. Count how many times 6 is available
 - v. Delete all elements from 3rd to 9th position
 - vi. Delete 11 from the list
 - vii. Search the position of 13 in the list
 - viii. Find the maximum value of the list
 - ix. Find the length of the list
 - x. Delete all the elements of the list
- (c) Write the outputs :- 3
- ```

Nlist = ['p','r','o','b','l','e','m']
print(Nlist.remove('p'))
print(Nlist.pop(3))
print(Nlist.pop())
print(Nlist[-2])
print(Nlist.index('e'))
Nlist.clear()
print(Nlist)

```
5. (a)What is a dictionary in Python? Give example. 2
- (b) Suppose `Dic1={1:'south',2:'ponit',3:'school'}`
- `Dic2={'one':'CBSE','two'='Guwahati'}`
- Write the output of the following code: 3
- i. `print( Dic1.items())`
  - ii. `print( Dic2.keys())`
  - iii. `print( Dic1.values())`
  - iv. `print( Dic1.update(Dic2))`
  - v. `print( len(Dic2))`
  - vi. `Dic2.clear()`  
`print(Dic2)`
- (c) Define NumPy in Python. Write command to create an array of 5 zeros. 2
- (d) Write the use of following functions in NumPy with example - 3
- `arrange(),reshape(),hstack()`
- or
- Write a NumPy program to convert a 1D array into 2D array with 2 rows and 3 columns.
6. (i) How is DELETE statement different from DROP statement in MySQL? 1
- (ii) A table “Students” has 3 columns and 4 rows in it. What is its degree ? What is its cardinality? What will be its cardinality if 5 rows are added in the table? 1
- (iii) Define- Primary Key,Alternate Key,DML 3
- (iv) . Create a table -VOTER with following structure and Insert at least four rows into it. 2+2+6

|            |                |
|------------|----------------|
| Filed name | Date Type/size |
| Vno        | Integer(4)     |
| Vname      | Varchar(30)    |
| Age        | Integer(3)     |
| Address    | Varchar(30)    |
| Phone      | Double(16)     |

Write the SQLs for the followings:

- (a) To list Vno,Vname,Age for all the the voters. This information should be sorted on Age.
- (b) To list all the voters where address is “Guwahati”
- (c ) To add one new column named VGender datatype char(1) .
- (d) To list voters where address is “Delhi” but age between 20 and 30.
- (e) To delete the records of all those voters who are either residing in “Delhi” or whose Age >35.
- (f) To change the age to 45 where Vname contains the word “Kumar”.

7.(i) What is cyber safety ? What should you do to protect your identity on Internet? 2

(ii) What are the merits and demerits of social networking ? 2

(iii) Write short notes 6

Cyber Bullying, IP Address, Denial of Service Attacks, Adware, Cybercrime,Hacker