



INDIAN SCHOOL SOHAR
TERM I EXAMINATION (2019-20)
INFORMATICS PRACTICES

CLASS: XI
DATE: 01/10/2019

MAX. MARKS: 70
DURATION: 3 HRS

Instructions:

- a. All the questions are compulsory.**
b. Answer the questions after carefully reading the text.

1. Answer the following questions:

- a. What are registers? 1
- b. _____ controls the flow of data from input devices to memory and from memory to output devices. 1
- c. Write the forward and backward index numbers of 'i' in string "practices". 1
- d. What is SoC? How it is different from CPU? 2
- e. i) 1024 TB = 1 _____ ii) 1024 _____ = 1 ZB 2
- f. What are the advantages of Python programming language? 2
- g. What are comments? Which character is used for single line comment? 2
- h. Which among the following are valid identifiers? 2
 Roll#No, Var1, None, True, 41stno, _v1, No_2, false
- i. What is pseudocode? How is it useful in developing logic for the solution of a problem? 2
- j. Explain string slice using suitable examples. 2
- k. Evaluate: 2
 i) $2//3+5*2**2-len("program's")$ ii) $22/7 - int(22\%7)$

2.

- a. What are table indexes? 1
- b. Define the terms: i) Equi join ii) Foreign key 2
- c. What is the role of Unique constraint? How is Primary key constraint different from Unique constraint? 2
- d. Compare Char and Varchar datatypes. 2

3.

- a. Write the equivalent python expression for the following: 2
- i) $|a - b| + 2a$ ii) $S = \frac{-b + \sqrt{b^2 - 4ac}}{2a}$
- iii) $2e^{3x} - e^x$ iv) $A = \frac{1}{3} \pi r^2 h$

- b. Evaluate : 2
- i) True and 1==1 or not False or 3==3 and False or 0!=1
- ii) 1 or 's' and not(False) or None
- c. Predict the output after execution of the following code: 2
- i) `x=20`
`x -=5`
`x,y=x+1,x+2`
`print(x,y,sep=",")`
`x,y=x-5,10`
`print(x,y,sep=",")`
- ii) `i=1` 2
`while i<4:`
`print(i%2,"\t",i)`
`i+=2`
- d. Rewrite the following code using 'for' loop: 2
- `x=10`
`while x>0:`
`print(x)`
`x -=2`
- e. Find the errors from the following code segment and rewrite the corrected code: 2
- i) `a=input("enter value of a")`
`c+=a`
`print(C)`
`print("the value of a is',a))`
- ii) `if i=1` 2
`print("value is one")`
`elif: i>1`
`print("values more than 1")`
`else: i<1`
`print("zero/negative values")`
- f. Write a program in python to print the factorial of a given number. 2
- g. Write a program that reads a string and check whether it is a palindrome string or not. 2

h. An online shopping company accepts its bill payments in 3 modes –Cash,Cheque and Credit card. A discount is given based on the mode of payment. The discount is given as per the following table:

Mode of Payment	Discount
Cash	8% of bill
Cheque	5% of bill
Credit Card	Nil

- i) The user should input the bill amount and mode of payment 1
- ii) Calculate and display the discounted amount as per the given criteria. 2
- iii) Calculate and display the Net Amount. (Net Amount=Bill Amount- Discount) 1

i. Write a program to print the sum of the following series for n terms: 2

$$1 + \frac{1}{4} + \frac{1}{9} + \frac{1}{16} + \frac{1}{25} + \dots$$

j. Draw a flow chart to check whether a number is even or odd. 2

4.

a. Create a table member based on the structure given below: 2

Member: Table structure

Column name	Data Type	Constraint
Empid	Integer(4)	Primary key
Name	Varchar(15)	
Pay	Integer(6)	
Divno	Integer(3)	
DOJ	Date	

Member: Table

Empid	Name	Pay	Divno	DOJ
101	Mohit	34000	10	2018-01-12
102	Sagar	32000	40	2018-12-10
103	Sujith	45000	20	2014-01-26
104	Revant	38000	30	
105	Tinu	50000	20	2010-03-29

Division:Table

Divno	Divname	Location
10	Media	TF02
20	Dance	FF02
30	Production	SF01
40	Camera	

- b. Write SQL Commands for the following on the basis of information given below:
- i) Insert a new row with values : 107,Kushal,2019-03-23. 1
 - ii) Show the details of employees from dance or camera division with payment less than 40000. 1
 - iii) List the name and location of employees joined in the year 2018 in ascending order of their id. 1
 - iv) Create a new table 'worker' from member table with the details of employees from division number 10, 20 and 30. 1
 - v) Display the details of media employees not from location FF02. 1
 - vi) List the details of members whose location is mentioned and joined before 2nd June 2015. 1
 - vii) Delete the details of employees with salary less than 35000. 1
 - viii) List the details of employees whose name starts with 's' and contains 5 characters. 1
 - ix) List the employee id, payment and location of all employees whose payment is in range 35000 to 50000 in descending order of payment and ascending order of division number. 1
 - x) Display a report as:<name>is charging RO <5% of payment>as bonus every year. 1
 - xi) Display the name, location and division name of employees whose date of join is not known. 1
- c. Write the output of the following queries:
- i) Select $2/2+5*5+5\%3-5$ as calculatedvalue; 1
 - ii) How many rows and columns will be there if we obtain the cartesian product of member and division tables? 1
- d. Remove the errors (if any) from the following queries and rewrite the corrected ones.
- i) Select * from member where name like 'a%' or 'r%' ; 1
 - ii) Select * from member orderby name; 1
 - iii) Drop from table division; 1

****The End****