**SET B**

**ARMY PUBLIC SCHOOL, DHAULA KUAN**

**CLASS: XI SUBJECT : COMPUTER SCIENCE**

**TIME: 1HR M.M: 30**

**General Instructions:**

1. **All programming questions to be answered using Python language only.**
2. **All questions are compulsory.**

Q) In SQL, the equivalent of UCASE () is: [1]

a) UPPERCASE () b) CAPITALCASE() c) UPPER() d) TITLE()

ans (c) upper()

Q Q Evaluate the following statement and write output: [1]

print(15.0 / 4 + (8 + 3.0))

Ans 14.75

Q Consider the statements given below and then choose the correct output from the given options:

myexam="@@CBSE Examination 2022@@" [1]

print(myexam[::-2])

1. @20 otnmx SC@ (b) @22niaiaESC@ (c) @22niaiaE SC@ (d) @20otnmxSC@

Ans (a)

Q Which of the following will delete key-value pair for key = “Red” from a dictionary D1? [1]

a. delete D1("Red") b. del D1["Red"] c. del.D1["Red"] d. D1.del["Red"]

Ans (b)

del D1["Red"]

Q Consider the following code and answer the questions that follow: [1+1=2]

Book={1:'Thriller', 2:'Mystery', 3:'Crime', 4:'Children Stories'}

Library ={'5':'Madras Diaries','6':'Malgudi Days'}

(a) . Ramesh needs to change the title in the dictionary book from ‘Crime’ to ‘Crime Thriller’. He has written the following command:

Book[‘Crime’]=’Crime Thriller’

But he is not getting the answer. Help him choose the correct command:

1. Book[2]=’Crime Thriller’
2. Book[3]=’Crime Thriller’
3. Book[2]=(’Crime Thriller’)
4. Book[3] =(‘Crime Thriller’)

Correct Answer: ii

(b). The command to merge the dictionary Book with Library the command would be:

1. d=Book+Library
2. print(Book+Library)
3. Book.update(Library)
4. Library.update(Book)

Correct Answer: iv

Q A database called ecompany has two tables COMPANY and CUSTOMER with the following records.

Write SQL commands for the queries (a)-(d) based on the two tables COMPANY and CUSTOMER

**COMPANY** [1x4=4]

|  |  |  |  |
| --- | --- | --- | --- |
| PID | NAME | CITY | PRODUCTNAME |
| 2101 | APPLE | DELHI | WATCH |
| 2102 | SAMSUNG | BANGALORE | MOBILE |
| 2103 | PANASONIC | DELHI | TV |
| 2104 | SONY | MUMBAI | MOBILE |
| 2105 | LENOVO | INDORE | TABLET |
| 2106 | DELL | MUMBAI | LAPTOP |

CUSTOMER

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| CUSTID | NAME | UNIT | PRICE | QTY | PID |
| 101 | REENA | SONI | 60,000 | 10 | 2102 |
| 102 | MICHAEL | PAUL | 50,000 | 20 | 2106 |
| 103 | MEETALI | SINGH | 70,000 | 15 | 2101 |
| 104 | PARUL | SOHAL | 55,000 | 3 | 2103 |
| 105 | RAJESH | DESWAL | 45,000 | 7 | 2104 |

a) Write an SQL statement to display the name of the companies in reverse alphabetical order.

b) To add one more column to the table customer called TOTAL\_PRICE which can have up to two decimal places.

c) Write an SQL statement to count the products city wise.

d) Write an SQL statement to display the customer name, product of the unit price and quantity, product name where the name of the city is Mumbai.

Ans. a) SELECT NAME FROM COMPANY ORDER BY NAME DESC;

b) ALTER TABLE CUSTOMER ADD TOTAL\_PRICE DECIMAL(10,2);

c) SELECT COUNT(\*), CITY FROM COMPANY GROUP BY CITY;

d) SELECT CUSTOMER.NAME, UNITPRICE\*QTY, PRODUCTNAME FROM COMPANY,CUSTOMER WHERE COMPANY.PID=CUSTOMER.PID AND CITY= 'MUMBAI';

Q Consider the table CLUB given below and write the output of the SQL queries that follow. [1X3=3]

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| CID | CNAME | AGE | GENDER | SPORTS | PAY | DOAPP |
| 5246 | AMRITA | 3 | FEMALE | CHESS | 900 | 3/27/2006 |
| 4687 | SHYAM | 37 | MALE | CRICKET | 1300 | 4/15/2004 |
| 1245 | MEENA | 23 | FEMALE | VOLLEY BALL | 1000 | 6/18/2007 |
| 1622 | AMRIT | 28 | MALE | KARATE | 1000 | 9/5/2007 |
| 1256 | AMINA | 36 | FEMALE | CHESS | 1100 | 8/15/2003 |
| 1720 | MANJU | 33 | FEMALE | KARATE | 1250 | 4/10/2004 |
| 2321 | VIRAT | 35 | MALE | CRICKET | 1050 | 4/30/2005 |

(i) SELECT COUNT(DISTINCT SPORTS) FROM CLUB;

(ii) SELECT CNAME, SPORTS FROM CLUB WHERE DOAPP<"2006-04-30" AND CNAME LIKE "%NA";

(iii) SELECT CNAME, AGE, PAY FROM CLUB WHERE GENDER = "MALE" AND PAY BETWEEN 1000 AND 1200;

Ans

(i)

COUNT(DISTINCT SPORTS)

4

(ii)

CNAME SPORTS

AMINA CHESS

(iii)

CNAME AGE PAY

AMRIT 28 1000

VIRAT 35 1050

Q Write a function, lenWords(STRING), that takes a string as an argument and returns a tuple containing length of each word of a string.

For example, if the string is "Come let us have some fun", the tuple will have (4, 3, 2, 4, 4, 3) [3]

Ans

def lenwords(string):

t=()

L=string.split()

for i in L:

length=len(i)

t=t+(length,)

return t

Q In a table in MYSQL database, an attribute A of datatype varchar(20) has the value “Keshav”. The attribute B of datatype char(20) has value “Meenakshi”. How many characters are occupied by attribute A and attribute B? [1]

ans 6,20

Q What are the possible outcome(s) executed from the following code? Also specify the maximum and minimum values that can be assigned to variable N. [1+1]

import random

NAV = ['RED','GREEN','BLUE','YELLOW']

NUM =random.randint(1,3)

NAVG = ' '

for C in range (NUM,1,-1):

NAVG=NAVG + NAV[C]

print (NAVG)

i) YELLOWBLUEGREEN (ii) YELLOWBLUE

(iii) YELLOW (iv) REDGREENBLUE

Ans (ii) YELLOWBLUE

Q Raman has written a code to find its sum of digits of a given number passed as parameter to

function sumdigits(n). His code is having errors. Rewrite the correct code and underline the

corrections made. [2]

def sumdigits(n):

d=0

for x in str(n):

d=d+x

return d

n=int(input(‘Enter any number”))

s=sumdigits(n)

print(“Sum of digits”,s)

Ans

def sumdigits(n):

d=0

for x in range(n): #range function should use in place of str()

d=d+x #indented block after for loop

return d #return outside function

n=int(input("Enter any number")) #use of single quote at the beginning

s=sumdigits(n)

print("Sum of digits",s)

Q Find Output: [2+2]

|  |  |
| --- | --- |
| (a)  def Display(str):  m=""  for i in range(0,len(str)):  if(str[i].isupper()):  m=m+str[i].lower()  elif str[i].islower():  m=m+str[i].upper()  else:  if i%2==0:  m=m+str[i-1]  else:  m=m+"#"  print(m)  Display('Fun@Python3.0')  Ans fUN#pYTHONn#. | (b)  a = 10  print(a\*3)  def fun1(a):  def fun2():  print("hello")  print("hello")  print(a\*2)  fun1(a)  print(a)  Ans  30  hello  20  10 |

Q State the difference between Local variables and global variables with the help of an example. [2]

Ans

those variable which r defined inside the function or in the parameter-local variable

those variable which r defined outside the function are called global variable

x=1

def cg():

global x

x=3

x=x+1

print(x)

cg()

print(x)

Q Kabir wants to write a program in Python to update the following record according to the rollno entered by the user in the table named Student in MYSQL database, SCHOOL: [3]

rno(Roll number )- integer

name(Name) - string

DOB (Date of birth) – Date

Fee – float

Note the following to establish connectivity between Python and MySQL:

Username - root

Password - tiger

Host - localhost

The values of fields rno, name, DOB and fee has to be accepted from the user. Help Kabir to write the program in Python.

Ans

import mysql.connector as mysql

con1=mysql.connector(host='localhost',user='root',password='tiger',database='school')

mycursor=con1.cursor()

rno=int(input('enter roll number for updation:'))

name=input('enter the name')

dob=input('enter date of birth')

fee=float(input('enter fee:'))

mycursor.execute("update student set name='{}',dob='{}',fee={} where rno={})".format(name,dob,fee,rno))

con1.commit()

con1.close()