ROLL		
NUMBER		

SET A



INDIAN SCHOOL MUSCAT HALF YEARLY EXAMINATION 2023 COMPUTER SCIENCE- 083



1

CLASS: XII

5.

a) 0

DATE: 12-09-2023

TIME ALLOTED

: 3 HRS.

MAXIMUM MARKS: 70

GENERAL INSTRUCTIONS:

- This question paper contains four sections, Section A to D
- All questions are compulsory.
- Section A has 10 questions carrying 1 mark each.
- Section B has 12 Very Short Answer type questions carrying 2 marks each.
- Section C has 7 Short Answer type questions carrying 3 marks each.
- Section D has 3 Long Answer type questions carrying 5 marks each.

SECTION-A

1 Find the invalid identifier(s) from the following: 1. c) Emp&no d) true a) 12PNR b) salary 1 Which of the following is a valid keyword in Python? 2. d) return b) Raise c) In 1 What is the output of the following code? 3. def func(x = 4, y = 3): x = x * y + 2y = y*2 - xprint(x, y)func(y=7,x=5)c)37 23 d) 36 22 a) 37 -23 b) 36 -22 Sunil, a python programmer, is working on a project which requires to define a function with 1 4. name Interest(). He defines it as: def Interest(Principal, Rate=0.06, Time): #code But this code is not working. Help Sunil to identify the error in the above function and with the solutions given below. a) def Interest(Principal=2000, Rate=0.06, Time): b) def Interest(Principal=5000, Rate, Time=00.6): c) def Interest(Principal, Rate, Time=0.06): d) Def Interest(Principal, Rate, Time=0.06):

d) Nothing

What is the default return value for a function that does not return any value explicitly?

c)-1

b) None

6.	a) alwaysb) when an exceptionc) when no exception					1
7.	What is the full form of a) Caps Separated V b) Comma Separated C) Colon Separated V d) Caps Separated V	alues Values /alues				1
8.	You are given the text thello everyone today is Monday all the best for your example.	file, "file1.txt" whose co	ntents are:			1
	What will be the output myfile = open("file1.tx str = myfile.readline(6) str = myfile.readline(8) str = myfile.readline(8) print(str) myfile.close() a) today is	,	c) hello ev	d) hell	o everyone	
	Mark the correct choice a) Both (A) and (R) are	e true and (R) is the core true and (R) is not the s false	rect explanation f	for (A).		
9.	last	w element pushed into s	tack always gets p	oositioned a	t the index after the	1
10.	Fill in the blank: clawith	element in the stack. ause is used with SELE	ECT statement to	display da	ta in a sorted form	1
	respect to a specified a) WHERE	b) DISTINCT	c) ORDE	ER BY	d) HAVING	

SECTION-B

What possible outputs(s) are expected to be displayed on screen at the time of execution of 2 11. program from the following code? Also specify the maximum values that can be assigned to each of the variables Start and End. import random VAL=[80,70,60,50,40,30,20,10] Start = random.randint(1,3)End = random.randint(Start,4) for I in range(Start, End+1): print (VAL[I],end ="*") (ii) 70*60*50*40*30* (iii) 50*40*30* (iv) 60*50*40* (i) 40*30*20*10* 2 12. What will be the output of the following code? value = 50def display(N): global value value = 25if N%7 == 0: value = value + Nelse: value = value - Nprint(value, end="#") display(20) print(value) What will be the output of the following code? 2 13. def Diff(N1,N2): if N1 > N2: return N1-N2 else: return N2-N1 NUM = [10,23,14,54,32]for CNT in range(4,0,-1): A= NUM[CNT] B= NUM[CNT-1] print(Diff(A,B), '#', end=' ') 2 Explain the raise statement in exception handling with an example. 14. 2 Explain SyntaxError and ValueError built-in exceptions. 15. 2 What is the difference between a text file and binary file? 16.

17. Rewrite the following code in Python after removing all syntax error(s). Underline each correction done in the code.

Def Create():

2

```
Def Create():
    f = open( Data.txt", 'w')
    for i in Range(4):
        name =input("Enter Name:")
        f.write(name)
    f.close
```

18. Suppose the content of the file "Rhymes.txt" is as follows:

2

```
Jack & Jill
```

Went up the hill

What is the output of following code?

F=open('Rhymes.txt', 'r')

L=F.readlines()

for i in L:

S = i.split()

print(len(S),end='#')

2

- 19. Define Primary Key and Alternate Key.
- 20. Explain any two DDL and DML commands. Write the full form of DDL and DML.

2

Differentiate between CHAR and VARCHAR data types in MySQL.

21. Define degree and cardinality of a table. What is the degree and cardinality of the following table SPORTS?

2

2

Table: SPORTS

I dole. Di	OILLE	
Sid	Name	Event
S001	Amulya Rao	4 x 100 Mtrs Relay
S002	Zaheer Khan	400 Mtrs

22. Sampriti has to create a database named **AUTOMOBILES** in MYSQL. She now needs to create a table named **CARS** in the database to store the records of various cars in the store. The table **CARS** has the following structure. Help her to complete the task by suggesting appropriate SQL commands.

Table: CARS

Field name	Data Type
CID	CHAR(3)
BRAND	VARCHAR(25)
QTY	INTEGER
PRICE	DECIMAL(10,2)

SECTION-C

23.	Write a python program to display those strings which are starting with 'A' from the given list.	3
24.	Write a python program that creates a tuple storing first 15 terms of Fibonacci series. OR	3
	Write a program to show entered string is a palindrome or not.	
25.	Write a program which inputs a tuple of n strings. Use a function to find the number of words in each string.	3
26.	A binary file "Office.dat" has structure (Eid, Name, Salary). Write a function display() in Python that would read contents of the file "Office.dat" and display the details of those employee whose salary greater than 10000.	3
27.	Write a python program to display the number of words in a file "Poem.txt".	3
28.	Write a function REWRITE() to read all the lines of the file "Message.txt" that contain the character 'a' and write it to another file "Final.txt".	3
29.	A binary file "Library.dat" has structure [Bookid, Title, Author, Price]. Write a user defined function Create_File() to input data for a record and add to "Library.dat".	3
	SECTION-D	
30.	Rijo, a student of class 12 th is learning CSV file module in Python. During examination,he has been assigned an incomplete Python code(shown below) to create a CSV file 'Student.csv' (content shown below). Help him in completing (Statements from 1 to 5)the code which creates the desired CSV file. CSV File Rollno, Name, Class Section 1 Anil XI A 2 Abijith XI A 3 Binoy XI A	5
	#Incomplete code import	

5

31. Answer the following:

- Write the definition of a user-defined function PUSH(STK,N) which accepts a stack STK and a list of integers in a parameter N pushes all those integers which are divisible by 3 from the list N into a stack STK.
- Write a definition of a user-defined function POP(STK). The program should use the above created stack, STK to pop each integer from STK and display the popped value. When the list is empty, display the message "StackEmpty".
- 32. Write SQL commands for (i) to (v) on the basis of table EMPLOYEE:

Table: EMPLOYEE

EMPNO	NAME	DEPT	SALARY
1002	Varun	Sales	30000
1003	Devesh	Accounts	34000
1004	Krishnan	Sales	25000
1005	Abdul	Stores	38000
1006	Arun	Production	35000

- (i) Display the structure of the table EMPLOYEE
- (ii) Display the details of all the employees from sales department.
- (iii) Display the names of the employees whose salary is in the range 20,000 50,000 (both lower limit and upper limit included).
- (iv) To display all the records in the ascending order of name.
- (v) To display the name and department of employees whose name starts with letter 'A'.

****END OF THE QUESTION PAPER****



ROLL		
NUMBER		

SET B



INDIAN SCHOOL MUSCAT HALF YEARLY EXAMINATION 2023 COMPUTER SCIENCE- 083



CLASS: XII DATE: 12-09-2023 TIME ALLOTED : 3 HRS. MAXIMUM MARKS: 70

GENERAL INSTRUCTIONS:

- This question paper contains four sections, Section A to D
- All questions are compulsory.
- Section A have 10 questions carrying 1 mark each.
- Section B has 12 Very Short Answer type questions carrying 2 marks each.
- Section C has 7 Short Answer type questions carrying 3 marks each.
- Section D has 3 Long Answer type questions carrying 5 marks each.

SECTION-A

1.	Fill in the blank:					1
	clau	use is used with SE	ELECT statement to	o display data	in a sorted form	1
	with respect to a speci			•		
	a) WHERE	b) DISTINC	Γ c) ORDI	ER BY	d) HAVING	
2.	You are given the text fil hello everyone today is Monday all the best for your exam		contents are:			1
	What will be the output of myfile = open("file1.txt") str = myfile.readline(6) str = myfile.readline(8) str = myfile.readline(8) print(str) myfile.close () a) today is		c) hello ev	d) hello	everyone	
3.	What is the default return a) 0 b)	n value for a function		ırn any value e d) Nothing	explicitly?	1

4.	name Interest(). H	He defines it as: ipal, Rate=0.06,T ot working. Help	Γime): #cod	which requires to define a function with e e error in the above function and with the	1
	a) def Interest(Prb) def Interest(Prc) def Interest(Prd) Def Interest(Pr	incipal=5000, Ra incipal, Rate, Tin	ate, Time=00.6): me=0.06):		
5.	What is the output def func($x = 4,y$) x = x*y + 2 y = y*2 - x print(x, y) func($y = 7, x = 5$) a) 37 -23		ng code? c)37 23	d) 36 22	1
6.	When will the elsa) always b) when an excec) when no excecd) when an excecd	ption occurs	cept-else be execu	ted?	1
7	What is the full for a) Caps Separate b) Comma Separate c) Colon Separate d) Caps Separate	ed Values rated Values red Values			1
8.	Which of the followa) true	wing is a valid key b) Raise	yword in Python? c) In	d) return	1
	Mark the correct of a) Both (A) and (choice as R)are true and (R)are true and (R) is false	ASONING(R) based R) is the correct exp R) is not the correct		
9.	last		ushed into stack alv	vays gets positioned at the index after the	1
10.	Find the invalid id	lentifier(s) from to b) salary	the following: c) Avg\$wage	d) true	1

SECTION-B

2 What possible outputs(s) are expected to be displayed on screen at the time of execution of 11. the program from the following code? Also specify the maximum values that can be assigned to each of the variables Start and End. import random VAL=[80,70,60,50,40,30,20,10] Start = random.randint(1,3)End = random.randint(Start,4) for I in range(Start, End+1): print (VAL[I],end ="*") (ii) 70*60*50*40*30* (iii) 50*40*30* (iv) 60*50*40* (i) 40*30*20*10* 2 What will be the output of the following code? 12. value = 50def display(N): global value value = 25if N%7 == 0: value = value + Nelse: value = value - Nprint(value, end="#") display(20) print(value) 2 What will be the output of the following code? 13. def Diff(N1,N2): if N1 > N2: return N1-N2 else: return N2-N1 NUM = [10,23,14,54,32]for CNT in range(4,0,-1): A= NUM[CNT] B= NUM[CNT-1] print(Diff(A,B), '#', end=' ') 2 Explain the raise statement in exception handling with an example. 14. 2 Explain ImportError and IndexError built-in exceptions. 15. 2 What is the difference between a text file and binary file? 16.

Rewrite the following code in Python after removing all syntax error(s). Underline 2 17. each correction done in the code. Def Create(): f = open(Data.txt", 'w') for i in Range(4): name =input("Enter Name:") f.write(name) f.close 2 Suppose the content of the file "Rhymes.txt" is as follows: 18. Jack & Jill Went up the hill What is the output of following code? F = open('Rhymes.txt', 'r')L = F.readlines()for i in L: S = i.split()print(len(S),end='#') 2 19. Define Primary Key and Alternate Key. 2 Explain any two DDL and DML commands. Write the full form of DDL and DML. 20.

21. Define degree and cardinality of a table. What is the degree and cardinality of the following table COACH?

2

2

Differentiate between CHAR and VARCHAR data types in MySQL.

Table: COACH

Cid	Name	Game	Address
C008	Zaheer Khan	Basketball	Ruwi
C010	Akshay Pant	Football	Darsait

22. Sunayani has to create a database named **LIBRARY** in MYSQL. She now needs to create a table named **BOOKS** in the database to store the records of various books in the store. The table **BOOKS** has the following structure. Help her to complete the task by suggesting appropriate SQL commands.

Table: BOOKS

Field name	Data Type
BID	CHAR(4)
AUTHOR	VARCHAR(20)
GENRE	VARCHAR(25)
PRICE	DECIMAL(9,2)

SECTION-C

23.	Write a program which inputs a tuple of n strings. Use a function to find the number of words in each string.	3
24.	Write a python program that creates a tuple storing first 15 terms of Fibonacci series. OR	3
	Write a program to show entered string is a palindrome or not.	
25.	Write a python program to display those strings which are starting with 'A' from the given list.	3
26.	A binary file "Office.dat" has structure (Eid, Name, Salary). Write a function display() in Python that would read contents of the file "Office.dat" and display the details of those employee whose salary greater than 10000.	3
27.	Write a python program to display the number of vowels in a file "Novel.txt".	3
28.	A binary file "Library.dat" has structure [Bookid, Title, Author, Price]. Write a user defined function Create_File() to input data for a record and add to "Library.dat".	3
29.	Write a function REWRITE() to read all the lines of the file "Message.txt" that contain the character 'a' and write it to another file "Final.txt".	3
	SECTION-D	
30.	Answer the following:	5
	• Write the definition of a user-defined function PUSH(STK,N) which accepts a stack STK and a list of integers in a parameter N pushes all those integers which are divisible by 3 from the list N into a stack STK.	
	 Write a definition of a user-defined function POP(STK). The program should use the above created stack, STK to pop each integer from STK and display the popped value. When the list is empty, display the message "StackEmpty". 	
31.	Rijo, a student of class 12 th is learning CSV file module in Python. During examination, he has been assigned an incomplete Python code(shown below) to create a CSV file 'Student.csv' (content shown below). Help him in completing (Statements from 1 to 5) the code which creates the desired CSV file. CSV File	5
	Rollno, Name, Class Section	
	1 Anil XI A 2 Abijith XI A	
	3 Binoy XI A	

#Incomplete code	
import	# Statement 1
fl = open(,	newline= ' ') # Statement 2
stwriter = csv	_ # Statement-3
data = []	
header = ['Rollno', 'Name',	, 'Class', 'Section']
data.append(header)	
for i in range(3):	
Rollno = int(input("Enter	Roll No:"))
Name = input("Enter Nam	
Class = input("Enter Class	s:")
Section = input("Enter Sec	ection:")
data.append() #Statement 4
stwriter. (data)	#Statement 5
fl.close()	

32. Write SQL commands for (i) to (v) on the basis of table EMPLOYEE:

Table: EMPLOYEE

EMPNO	NAME	DEPT	SALARY
1002	Varun	Sales	30000
1003	Devesh	Accounts	34000
1004	Krishnan	Sales	25000
1005	Abdul	Stores	38000
1006	Arun	Production	35000

- (i) Display the structure of the table EMPLOYEE
- (ii) Display the details of all the employees from accounts department.
- (iii) Display the names of the employees whose salary is greater than 25,000.
- (iv) To display all the records in the descending order of name.
- (v) To display the name and department of the employees whose name ends with letter 'n'.

5

****END OF THE QUESTION PAPER****

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INDIAN SCHOOL MUSCAT HALF YEARLY EXAMINATION 2023 COMPUTER SCIENCE- 083



CLASS: XII DATE: 12-09-2023 TIME ALLOTED

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- Section D has 3 Long Answer type questions carrying 5 marks each.

SECTION-A

		orking on a project	et which requires to de	ine a function with	1
		Time):	#code		
But this code is	not working. Help		he error in the above fi	unction and with the	
b) def Interest(c) def Interest(Principal=5000, R Principal, Rate, Ti	ate, Time=00.6): me=0.06):			
Which of the foll	owing is a valid ke	yword in Python?			1
a) true	b) Raise	c) In	d) return		
	clause is use		tatement to display da	ata in a sorted form	1
a) WHERE			c) ORDER BY	d) HAVING	
	* *	_	1) (1		1
a) 5Rollno	b) salary	c) Rec&no	d) false		
	y = 3:	ing code?			1
	name Interest() def Interest(Prin But this code is solutions given a) def Interest(b) def Interest(c) def Interest(d) Def Interest(Which of the foll a) true Fill in the blank with respect to a) WHERE Find the invalid a) 5Rollno What is the out def func(x = 4, x = x*y + 2 y = y*2 - x print(x, y)	name Interest(). He defines it as: def Interest(Principal, Rate=0.06,' But this code is not working. Help solutions given below. a) def Interest(Principal=2000, R b) def Interest(Principal=5000, R c) def Interest(Principal, Rate, Ti d) Def Interest(Principal, Rate, Ti Which of the following is a valid ke a) true b) Raise Fill in the blank:	name Interest(). He defines it as: def Interest(Principal, Rate=0.06, Time): But this code is not working. Help Sunil to identify to solutions given below. a) def Interest(Principal=2000, Rate=0.06, Time): b) def Interest(Principal=5000, Rate, Time=00.6): c) def Interest(Principal, Rate, Time=0.06): d) Def Interest(Principal, Rate, Time=0.06): Which of the following is a valid keyword in Python? a) true b) Raise c) In Fill in the blank:	name Interest(). He defines it as: def Interest(Principal, Rate=0.06, Time): #code But this code is not working. Help Sunil to identify the error in the above fis solutions given below. a) def Interest(Principal=2000, Rate=0.06, Time): b) def Interest(Principal=5000, Rate, Time=0.06): c) def Interest(Principal, Rate, Time=0.06): d) Def Interest(Principal, Rate, Time=0.06): Which of the following is a valid keyword in Python? a) true b) Raise c) In d) return Fill in the blank:	def Interest(Principal, Rate=0.06,Time): #code But this code is not working. Help Sunil to identify the error in the above function and with the solutions given below. a) def Interest(Principal=2000, Rate=0.06,Time): b) def Interest(Principal=5000, Rate, Time=0.6): c) def Interest(Principal, Rate, Time=0.06): d) Def Interest(Principal, Rate, Time=0.06): Which of the following is a valid keyword in Python? a) true b) Raise c) In d) return Fill in the blank:

	a) 37 -23	b) 36 -22	c)37	23	1) 36 22	
6.	When will the ea a) always b) when an exce c) when no exce d) when an exce	ption occurs				1
7.	What is the full for a) Caps Separate b) Comma Separate) Colon Separate) Caps Separate	ed Values trated Values tted Values				1
8.	You are given the hello everyone today is Monday all the best for yo		xt" whose co	ontents are:		1
	What will be the emyfile = open("fi str = myfile.readli str = myfile.readli str = myfile.readli print(str) myfile.close()	le1.txt") ine(6) ine() ine(8)		a) halla av	d) hello everyone	
	Mark the correct a) Both (A) and ((ON (A) and REA choice as (R) are true and (R) are true and (R) is false	R) is the co	c) hello ev R) based question rrect explanation e correct explanat	for (A).	
9.	last	A stack is a LIFC my new element printing element in	oushed into s	tack always gets	positioned at the index after the	1
10.	What is the defau	ult return value fo b) None	or a function c) -1	that does not retu	urn any value explicitly? d) Nothing	1

SECTION-B

```
2
11.
       What will be the output of the following code?
        def Diff(N1,N2):
           if N1 > N2:
              return N1-N2
           else:
              return N2-N1
        NUM = [10,23,14,54,32]
        for CNT in range(4,0,-1):
          A= NUM[CNT]
          B= NUM[CNT-1]
          print(Diff(A,B), '#', end= ' ')
                                                                                                         2
       What will be the output of the following code?
12.
       value = 50
       def display(N):
            global value
            value = 25
            if N\%7 == 0:
               value = value + N
            else:
               value = value - N
       print(value, end="#")
       display(20)
       print(value)
                                                                                                         2
       What possible outputs(s) are expected to be displayed on screen at the time of execution of
13.
       program from the following code? Also specify the maximum values that can be assigned to
       each of the variables Start and End.
        import random
        VAL=[80,70,60,50,40,30,20,10]
        Start = random.randint(1,3)
        End = random.randint(Start,4)
        for I in range(Start, End+1):
          print (VAL[I],end ="*")
                            (ii) 70*60*50*40*30* (iii) 50*40*30* (iv) 60*50*40*
        (i) 40*30*20*10*
                                                                                                         2
14.
       Explain NameError and EOFError built-in exceptions.
                                                                                                         2
       What is the difference between a text file and binary file?
15.
                                                                                                         2
       Explain the raise statement in exception handling with an example.
16.
```

17. Rewrite the following code in Python after removing all syntax error(s). Underline each correction done in the code.

2

```
Def Create():
    f = open( Data.txt", 'w')
    for i in Range(4):
        name =input("Enter Name:")
        f.write(name)
    f.close
```

18. Suppose the content of the file "Rhymes.txt" is as follows:

2

Jack & Jill

Went up the hill

What is the output of following code?

F=open('Rhymes.txt', 'r')

L=F.readlines()

for i in L:

S = i.split()

print(len(S),end='#')

19. Define Primary Key and Alternate Key.

- 2
- 20. Explain any two DDL and DML commands. Write the full form of DDL and DML.

2

Differentiate between CHAR and VARCHAR data types in MySQL.

21. Define degree and cardinality of a table. What is the degree and cardinality of the following table SHOP?

2

2

Table: SHOP

Spid	Name	Quantity	Reorder	Date
SP20	HP Laptop	500	100	2023-12-10
SP18	Acer Laptop	300	150	2023-12-05
SP42	Asus Laptop	200	75	2023-12-02

22. Richa has to create a database named **SHOWROOM** in MYSQL. She now needs to create a table named **VEHICLE** in the database to store the records of various cars in the store. The table **VEHICLE** has the following structure. Help her to complete the task by suggesting appropriate SQL commands.

Table: VEHICLE

I dolo. I Lillion	
Field name	Data Type
VID	CHAR(5)
VBRAND	VARCHAR(30)
QTY	INTEGER
PRICE	DECIMAL(8,2)

SECTION-C

23.	Write a python program that creates a tuple storing first 15 terms of Fibonacci series. OR	3
	Write a program to show entered string is a palindrome or not.	
24.	Write a python program to display those strings which are starting with 'A' from the given list.	3
25.	Write a program which inputs a tuple of n strings. Use a function to find the number of words in each string.	3
26.	A binary file "Office.dat" has structure (Eid, Name, Salary). Write a function display() in Python that would read contents of the file "Office.dat" and display the details of those employee whose salary greater than 10000.	3
27.	A binary file "Library.dat" has structure [Bookid, Title, Author, Price]. Write a user defined function Create_File() to input data for a record and add to "Library.dat".	3
28.	Write a function REWRITE() to read all the lines of the file "Message.txt" that contain the character 'a' and write it to another file "Final.txt".	3
29.	Write a program to display the number of lines starting with 'M' or 'E' in a file "Lyrics.txt".	3
	SECTION-D	
30.	Rijo, a student of class 12 th is learning CSV file module in Python. During examination,he has been assigned an incomplete Python code(shown below) to create a CSV file 'Student.csv' (content shown below). Help him in completing (Statements from 1 to 5) the code which creates the desired CSV file. CSV File Rollno, Name, Class Section 1 Anil XI A 2 Abijith XI A 3 Binoy XI A	5
	#Incomplete code import	

5

5

31. Answer the following:

- Write the definition of a user-defined function PUSH(STK,N) which accepts a stack STK and a list of integers in a parameter N pushes all those integers which are divisible by 3 from the list N into a stack STK.
- Write a definition of a user-defined function POP(STK). The program should use the above created stack, STK to pop each integer from STK and display the popped value. When the list is empty, display the message "StackEmpty".
- 32. Write SQL commands for (i) to (v) on the basis of table EMPLOYEE:

Table: EMPLOYEE

EMPNO	NAME	DEPT	SALARY
1002	Varun	Sales	30000
1003	Devesh	Accounts	34000
1004	Krishnan	Sales	25000
1005	Abdul	Stores	38000
1006	Arun	Production	35000

- (i) Display the structure of the table EMPLOYEE
- (ii) Display the details of all the employees from production department.
- (iii) Display the names of the employees whose salary is less than 30,000.
- (iv) To display all the records in the ascending order of salary.
- (v) To display the name and department of the employees whose name has the letters 'sh' together.

****END OF THE QUESTION PAPER****

