

COMMON PRE-BOARD EXAMINATIONS - 2023
COMPUTER SCIENCE (083)
CLASS: XII

Time : 3 hours

Max. Marks:70

SECTION A		
1.	(iii) b, c, a	1
2.	b) list (tuple)	1
3.	c) >	1
4.	c) calc (y=25)	1
5.	d) no output	1
6.	a) quit talking and begin doing	1
7.	(c) use	1
8.	A primary key cannot have null values while a foreign key can have nulls.	1
9.	(c) T=T+(80,)	1
10.	(d) delete from student;	1
11.	(a) File.read(n)	1
12.	(c) Alter table	1
13.	(c) 48 bit	1
14.	(c) Madam	1
15.	(a) Between	1
16.	a)When an existing attribute is modified.	1
17.	Both A and R are true and R is the correct explanation for A	1
18.	Ans A is false but R is True	1
SECTION B		
19.	<pre>m=int(input("Enter the first number")) n=int(input("enter the second number")) for i in range(m, n) if i>1: for j in range(2,i): if i % j == 0: break else: print(num)</pre>	2

20.	<p>Why is the difference between HTML and XML?</p> <div style="border: 1px solid black; padding: 5px;"> <p>XML mainly focuses on transfer of data while HTML is focused on presentation of the data. XML is content driven whereas HTML is format driven. XML is Case sensitive while HTML is Case insensitive. XML provides namespaces support while HTML doesn't provide namespaces support. XML is strict for closing tag while HTML is not strict. XML tags are extensible whereas HTML has limited tags. XML tags are not predefined whereas HTML has predefined tags.</p> </div> <p style="text-align: center;">OR</p> <p>Write the difference between server-side script and client-side script.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Client Side</th> <th style="width: 50%;">Server side Script</th> </tr> </thead> <tbody> <tr> <td>It is downloaded and runs at client's end</td> <td>It runs on the server end and the results are sent to the client end(browser).</td> </tr> <tr> <td>It is browser dependent</td> <td>It is not browser dependent</td> </tr> <tr> <td>Example- Javascript, VBscript</td> <td>Example -ASP, JSP</td> </tr> </tbody> </table>	Client Side	Server side Script	It is downloaded and runs at client's end	It runs on the server end and the results are sent to the client end(browser).	It is browser dependent	It is not browser dependent	Example- Javascript, VBscript	Example -ASP, JSP	2
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21.	(a) coronavirus di	1								
	(b) 13	1								
22.	An aggregate function in SQL performs a calculation on multiple values and returns a single value. SQL provides many aggregate functions that include avg, count, sum, min, max, etc. An aggregate function ignores NULL values when it performs the calculation, except for the count function.	2								
23.	(a) (i) GPRS-General Packet Radio Services (ii) Post Office Protocol (b)Optical fibre	2								
24.	<p>1 # 1 #2 # 1 #2 #3 #</p> <p style="text-align: center;">OR</p> <p>1 20 PS 4 30 PSRS 9 60 PSRS5S</p>	2								
25	<p>DELETE is a Data Manipulation Language command, DML command and is used to remove tuples/records from a relation/table. Whereas DROP is a Data Definition Language, DDL command and is used to remove named elements of schema like relations/table, constraints or entire schema.</p> <p style="text-align: center;">OR</p> <p>DDL- CREATE, Drop DML-INSERT, UPDATE</p>	2								

SECTION -C																																																		
26.	<p>(a) Select * from student natural join stream;</p> <table border="1"> <thead> <tr> <th>Streamid</th> <th>Admno</th> <th>Name</th> <th>Class</th> <th>Sec</th> <th>Stream</th> </tr> </thead> <tbody> <tr> <td>10</td> <td>1101</td> <td>Naveen</td> <td>XII</td> <td>A</td> <td>Medical</td> </tr> <tr> <td>10</td> <td>1102</td> <td>Chetna</td> <td>XII</td> <td>A</td> <td>Medical</td> </tr> <tr> <td>30</td> <td>1103</td> <td>Imran</td> <td>XI</td> <td>C</td> <td>Commerce</td> </tr> <tr> <td>20</td> <td>1104</td> <td>Shailendra</td> <td>XII</td> <td>B</td> <td>Nonmedical</td> </tr> <tr> <td>10</td> <td>1105</td> <td>Tejas</td> <td>XI</td> <td>A</td> <td>Medical</td> </tr> <tr> <td>20</td> <td>1106</td> <td>Zoya</td> <td>XI</td> <td>B</td> <td>Nonmedical</td> </tr> <tr> <td>40</td> <td>1107</td> <td>Swati</td> <td>XII</td> <td>D</td> <td>Humanities</td> </tr> </tbody> </table>	Streamid	Admno	Name	Class	Sec	Stream	10	1101	Naveen	XII	A	Medical	10	1102	Chetna	XII	A	Medical	30	1103	Imran	XI	C	Commerce	20	1104	Shailendra	XII	B	Nonmedical	10	1105	Tejas	XI	A	Medical	20	1106	Zoya	XI	B	Nonmedical	40	1107	Swati	XII	D	Humanities	1
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	<p>(b) Write the output of the queries (i) to (iv) based on the table student:</p> <p>i. Select Admno, Name from student where class= "XII"; Ans</p> <table border="1"> <thead> <tr> <th>Admno</th> <th>Name</th> </tr> </thead> <tbody> <tr> <td>1101</td> <td>Naveen</td> </tr> <tr> <td>1102</td> <td>Chetna</td> </tr> <tr> <td>1104</td> <td>Shailendra</td> </tr> <tr> <td>1107</td> <td>Swati</td> </tr> </tbody> </table> <p>ii. Select distinct(Streamid) from student; Ans</p> <table border="1"> <thead> <tr> <th>Streamid</th> </tr> </thead> <tbody> <tr> <td>10</td> </tr> <tr> <td>30</td> </tr> <tr> <td>20</td> </tr> <tr> <td>40</td> </tr> </tbody> </table> <p>iii. Select count(*) from student where class= "XII" and Streamid=10; <table border="1"> <thead> <tr> <th>count(*)</th> </tr> </thead> <tbody> <tr> <td>2</td> </tr> </tbody> </table> </p> <p>iv. Select sec, count(sec) from student group by sec;</p> <table border="1"> <thead> <tr> <th>Sec</th> <th>Count(sec)</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>3</td> </tr> <tr> <td>C</td> <td>1</td> </tr> <tr> <td>B</td> <td>2</td> </tr> <tr> <td>D</td> <td>1</td> </tr> </tbody> </table>	Admno	Name	1101	Naveen	1102	Chetna	1104	Shailendra	1107	Swati	Streamid	10	30	20	40	count(*)	2	Sec	Count(sec)	A	3	C	1	B	2	D	1	2																					
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27.	Write a user-defined function to display the total number of words present in the file "quotes.txt"	3																																																

```
def countword():
    f=open("an.txt","r")
    count=0
    x=f.read()
    word=x.split()
    print(word)
    for i in word:
        count+=1
    print("Total word", count)
    f.close()
countword()
```

OR

Write a function countmy() in python to read the text file "data.txt" and count the number of times "my" occurs in the file.

```
def countmy():
    f=open("data.txt","r")
    count=0
    x=f.read()
    word=x.split()
    for i in word:
        if i=="my":
            count+=1
    print("my occurs ",count,"times")
    f.close()
countmy()
```

28.	<p>i. SELECT CUSTNO, CUSTADDRESS, SETNAME FROM HANDSETS H, CUSTOMER C WHERE H.SETCODE = C.SETNO; Ans</p> <table border="1" data-bbox="548 262 1039 504"> <thead> <tr> <th>Custno</th> <th>Custaddress</th> <th>Setname</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Delhi</td> <td>Nokia 3G</td> </tr> <tr> <td>2</td> <td>Mumbai</td> <td>Blackberry</td> </tr> <tr> <td>3</td> <td>Mumbai</td> <td>Nokia 3G</td> </tr> <tr> <td>4</td> <td>Kolkata</td> <td>Nokia 2G</td> </tr> <tr> <td>5</td> <td>Delhi</td> <td>Blackberry</td> </tr> </tbody> </table> <p>ii. SELECT SUM(PHONECOST) FROM HANDSETS GROUP BY TOUCHSCREEN; Ans</p> <pre>sum(phonecost) +-----+ 9000 8000 +-----+</pre> <p>iii. SELECT * FROM CUSTOMER WHERE SETNO IN ('N1','N2'); +-----+-----+-----+ custno setno custaddress +-----+-----+-----+ 1 N2 Delhi 3 N2 Mumbai 4 N1 Kolkata +-----+-----+-----+</p> <p>iv. UPDATE HANDSETS SET PHONECOST=PHONECOST+PHONECOST * 0.1; Ans</p> <pre>+-----+-----+-----+-----+ setcode setname touchscreen phonecost +-----+-----+-----+-----+ N1 Nokia 2G N 5500 N2 Nokia 3G Y 8800 B1 Blackberry N 4400 +-----+-----+-----+-----+</pre> <p>(b) Write command to add a new column GST in the handsets table Alter table handsets add GST int(2);</p>	Custno	Custaddress	Setname	1	Delhi	Nokia 3G	2	Mumbai	Blackberry	3	Mumbai	Nokia 3G	4	Kolkata	Nokia 2G	5	Delhi	Blackberry	2
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29.	<p>Write a Python program to input 10 numbers from the user and store it in a list. Add all the elements present at the odd indices of the list. Ans</p> <pre>lst=[] print("Enter elements of list") for i in range(10):</pre>	3																		

	<pre> n=eval(input("Enter an element")) lst.append(n) sum=0 print(lst) for i in range(1,10,2): sum=sum+lst[i] print("sum of elements at odd indices", sum) </pre>	
30.	<p>Write a function in Python push(Arr), where Arr is a list of numbers. From this list push all numbers multiple of 6 into a stack implemented by using a list. Display the stack if it has at least one element, otherwise display an appropriate error message.</p> <p>Ans-</p> <pre> stack=[] def push(Arr): for i in range(len(Arr)): if Arr[i]%6==0: stack.append(Arr[i]) if stack==[]: print("stack is empty") else: print(stack) Arr=eval(input("enter a list of numbers")) push(Arr) </pre> <p style="text-align: center;">OR</p> <p>Write a function pop(Arr) in Python where Arr is a stack implemented by a list of numbers. The function returns the value deleted from the stack.</p> <p>Ans</p> <pre> def pop(Arr): if Arr==[]: print("Stack is empty") else: print("the deleted element",Arr.pop()) Arr=eval(input("enter a list of numbers")) pop(Arr) </pre>	3
SECTION - D		
31	<p>(a)</p> <pre> graph TD W1[W1] --- W3[W3] W2[W2] --- W4[W4] W3 --- W4 </pre>	5

	<pre> f2.close() write() read() OR import csv def write(): f=open("employee.csv","w",newline="") writer=csv.writer(f) data = [] while True : empno = input("Enter item code :-") name = input("Enter name :-") salary = input("Enter price :-") data.append([empno, name, salary]) user = input("Do you want to enter more data (yes/no)") if user == "No" or user == "no" : break writer.writerows(data) f.close() def read(): sum=0 f2=open("employee.csv","r",newline="") sreader=csv.reader(f2) for i in sreader: sum=sum+int(i[2]) print("The total salary=",sum) f2.close() write() read() </pre>	
	SECTION E	
34	<p>i) The column RegNo in OPD table can be used to create Foreign key in Registration table because RegNo column is the Primary key.</p> <p>(ii) The cardinality is 7 and the degree of the table is 8.</p> <p>(iii) (a) INSERT INTO OPD VALUES ('R130', 'Naman', 30, 'ENT', '2022-10-10', 700, 'M');</p> <p>(b) UPDATE OPD SET Charges=Charges+200 WHERE Department = 'ENT';</p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p>
	<p>OR (Option for part iii only)</p> <p>(a) ALTER TABLE OPD DROP RoomNo;</p> <p>(b) ALTER TABLE OPD add Panel_Discount Varchar(50);</p>	
35	<p>a. Which module should be imported in the program? (Statement 1)</p> <p><u>import pickle</u></p>	4

	<p>b. Write the correct statement to open the file (statement 2) <u>f=open("student.dat","rb")</u></p> <p>c. Write the list method to add data to the list record (statement 3) <u>student.append(s)</u></p> <p>d. Write the code to write the data into the binary file in (statement 4) <u>pickle.dump(student,f)</u></p>	
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