

KENDRIYA VIDYALAYA SANGATHA GUWHATI REGION

Pre – Board Examination: 2022-23

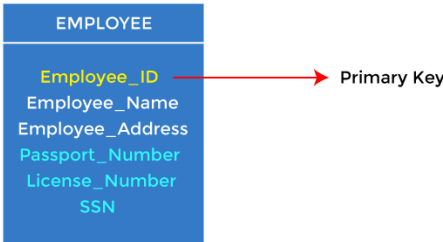
SET – I

Class: XII

SUBJECT: COMPUTER SCIENCE (083)

MARKING SCHEME

1.	True	1										
2.	(b) Max-marks	1										
3.	(c) ["Ashok", "Ramesh"]	1										
4.	(b) False	1										
5.	(b) John#Peter#Vicky	1										
6.	(a) r+	1										
7.	(c) alter	1										
8.	(c) INSERT	1										
9.	(b) Statement 4	1										
10.	(a) Foreign Key	1										
11.	(c) DISTINCT	1										
12.	Ans: (a) file_object.seek(offset [, reference_point])	1										
13.	(d) SMTP	1										
14.	(a) 129	1										
15.	(c) count(*)	1										
16.	(b) connect()	1										
17.	(a) Both A and R are true and R is the correct explanation for A	1										
18.	(c) A is True but R is False	1										
19.	<pre> Num=int(input("Number:")) sum=0 for i in range(10, Num,3): Sum+=1 if i%2==0: print(i*2) else: print(i*3) print(Sum) </pre>	2										
20.	<table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <thead> <tr> <th style="width: 50%; text-align: center;">LAN</th> <th style="width: 50%; text-align: center;">WAN</th> </tr> </thead> <tbody> <tr> <td>LAN stands for Local Area Network.</td> <td>Whereas WAN stands for Wide Area Network.</td> </tr> <tr> <td>The speed of LAN is high(more than WAN).</td> <td>While the speed of WAN is slower than LAN.</td> </tr> <tr> <td>LAN covers small area i.e. within the building.</td> <td>While WAN covers large geographical area.</td> </tr> <tr> <td>LAN has a higher data transfer rate.</td> <td>WAN has a lower data transfer rate as compared to LAN.</td> </tr> </tbody> </table> <p style="text-align: center;">2 marks for any two correct points OR</p> <p>XML (Extensible MarkupLanguage)</p> <ul style="list-style-type: none"> □ XML tags are not predefined, they are user defined □ XML stores and transfers data. □ Dynamic in nature 	LAN	WAN	LAN stands for Local Area Network.	Whereas WAN stands for Wide Area Network.	The speed of LAN is high(more than WAN).	While the speed of WAN is slower than LAN.	LAN covers small area i.e. within the building.	While WAN covers large geographical area.	LAN has a higher data transfer rate.	WAN has a lower data transfer rate as compared to LAN.	2
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	<p>HTML (Hypertext Markup Language)</p> <ul style="list-style-type: none"> □ HTML tags are pre-defined and it is a markup language □ HTML is about displaying data. □ Static in nature <p>1 mark for each correct definition</p>																																			
21.	<p>(a) 20@otnm (1 mark for the correct answer)</p> <p>(b) dict_items([('name', 'Akash'), ('age', 27), ('city', 'New Delhi')]) (1 mark for the correct answer)</p>	2																																		
22.	<p>Primary Key: A set of one or more attributes that can be uniquely identifies a tuple in a relation / table.</p> <div style="text-align: center;">  <p>The diagram shows a blue box representing a table named 'EMPLOYEE'. Inside the box, the attributes are listed: Employee_ID (highlighted in yellow), Employee_Name, Employee_Address, Passport_Number, License_Number, and SSN. A red arrow points from 'Employee_ID' to the text 'Primary Key' outside the box.</p> </div> <p>(1 mark for the correct answer and 1 mark for example)</p>	2																																		
23.	<p>(a) SMTP : Simple Mail Transfer Protocol FTP : File Transfer Protocol (1/2 mark for each correct answer)</p> <p>(b) Modem stands for Modulation Demodulation. It converts the digital signal to Analog and vice versa to communicate between devices. (1 mark for each correct answer)</p>	2																																		
24.	<p>250 # 150 250 # 100 130 # 100</p> <p>OR</p> <p>(22,44,66)</p>	2																																		
25.	<p>COUNT(*) returns the count of all rows in the table, whereas COUNT () is used with Column_Name passed as argument and counts the number of non-NULL values in a column that is given as argument.</p> <p>Example: Table : EMPL</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>EMPNO</th> <th>ENAME</th> <th>JOB</th> <th>SAL</th> <th>DEPTNO</th> </tr> </thead> <tbody> <tr> <td>8369</td> <td>SMITH</td> <td>CLERK</td> <td>2985</td> <td>10</td> </tr> <tr> <td>8499</td> <td>ANYA</td> <td>NULL</td> <td>9870</td> <td>20</td> </tr> <tr> <td>8566</td> <td>AMIR</td> <td>SALESMAN</td> <td>8760</td> <td>30</td> </tr> <tr> <td>8698</td> <td>BINA</td> <td>MANAGER</td> <td>5643</td> <td>20</td> </tr> <tr> <td>8912</td> <td>SUR</td> <td>NULL</td> <td>3000</td> <td>10</td> </tr> </tbody> </table> <p>e.g. SELECT COUNT(*) FROM EMPL; Output</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>COUNT(*)</td> </tr> <tr> <td>5</td> </tr> </table> <p>e.g.2 SELECT COUNT(JOB) FROM EMPL; Output</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>COUNT(JOB)</td> </tr> <tr> <td>3</td> </tr> </table> <p>Since JOB has 2 NULL values</p>	EMPNO	ENAME	JOB	SAL	DEPTNO	8369	SMITH	CLERK	2985	10	8499	ANYA	NULL	9870	20	8566	AMIR	SALESMAN	8760	30	8698	BINA	MANAGER	5643	20	8912	SUR	NULL	3000	10	COUNT(*)	5	COUNT(JOB)	3	2
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	<p>(1 mark for the difference and 1 mark for appropriate example) OR</p> <p>DDL- ALTER, DROP DML - SELECT, UPDATE</p> <p>(½ mark for each correct categorization)</p>															
26.	<p>(a) SELECT SNAME, SCITY, IPRICE FROM sales, Item where SCITY="Delhi" and Sales.SCode =Item.SCode;</p> <table border="1"> <thead> <tr> <th>SNAME</th> <th>SCITY</th> <th>IPRICE</th> </tr> </thead> <tbody> <tr> <td>HITESH</td> <td>DELHI</td> <td>1200</td> </tr> </tbody> </table> <p>(1 mark for correct output)</p> <p>(b)</p> <p>(i) SELECT AVG(SALARY) FROM EMPLOYEE WHERE CITY LIKE '%R'; Ans: 72000</p> <p>(ii) SELECT COUNT(*) FROM EMPLOYEE WHERE DATE_OF_JOINING BETWEEN '2011-01-01' AND '2020-12-21'; Ans: 4</p> <p>(iii) SELECT DISTINCT CITY FROM EMPLOYEE WHERE SALARY >65000; Ans: Jaipur Delhi</p> <p>(iv) SELECT CITY, SUM(SALARY) FROM EMPLOYEE GROUP BY CITY; Ans:</p> <table border="1"> <thead> <tr> <th>CITY</th> <th>SALARY</th> </tr> </thead> <tbody> <tr> <td>JAIPUR</td> <td>140000</td> </tr> <tr> <td>DELHI</td> <td>137000</td> </tr> <tr> <td>AGRA</td> <td>60000</td> </tr> </tbody> </table> <p>(1/2 mark for each correct output)</p>	SNAME	SCITY	IPRICE	HITESH	DELHI	1200	CITY	SALARY	JAIPUR	140000	DELHI	137000	AGRA	60000	3
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27.	<pre>f = open("story.txt", "r"): d = f.read() m = d.split() for i in m: if (len (i) <4): print (i) displaywords ()</pre> <p>OR</p> <pre>def revtext(): f=open("sorty.txt", "r") s="" while True: d=f.readline() if not d: break else: m=d.split()</pre>	3														

	<pre> for i in m: if i[0]=='i' or i[0]=='l': s=s+" "+(i[:-1]) else: s=s+" "+i print(s) s="" revtext() </pre> <p>(½ mark for correctly opening and closing the file ½ for read()/readline() ½ mark for correct loops ½ for correct if statement ½ mark for correct processing ½ mark for displaying the correct output) Note: Any other relevant and correct code may be marked</p>	
28.	<p>(a)</p> <p>(i) SELECT ActivityName, Acode FROM activity ORDER BY Acode DESC; (ii) SELECT SUM(PrizeMoney), ParticipantsNum FROM activity GROUP BY ParticipantsNum; (iii) SELECT Name, ACode FROM coach ORDER BY ACode; (iv) SELECT * FROM activity WHERE ScheduleDate<{01/01/2004} ORDER BY ParticipantsNum;</p> <p>(1/2 mark for each correct answer) (b) SHOW TABLES; (1 mark for correct answer)</p>	2+1
29.	<pre> def SQUARE_LIST(L): SList=[] for i in L: if i!= 0: SList.append(i*i) return SList </pre> <p>(½ mark for correct function header 1 mark for correct loop 1 mark for correct if statement ½ mark for return statement) Note: Any other relevant and correct code may be marked</p>	3
30.	<pre> status=[] def Push_element(cust): if cust[2]=="Goa": L1=[cust[0],cust[1]] status.append(L1) def Pop_element (): num=len(status) while len(status)!=0: dele=status.pop() print(dele) num=num-1 else: print("Stack Empty") </pre> <p>(1.5 marks for correct Push_element() and 1.5 marks for correct Pop_element())</p>	3

	<p style="text-align: center;">OR</p> <pre> stk=[] d={"Ramesh":58, "Umesh":78, "Vishal":90, "Khushi":60, "Ishika":95} def push(stk,item): for i in item: if item[i]>70: stk.append(i) def Pop(stk): if stk==[]: return None else: return stk.pop() </pre> <p>(1.5 marks for correct Push() and 1.5 marks for correct Pop())</p>	
<p>31.</p>	<p>(i) any one of the following</p> <div style="text-align: center;"> <p>Layout option 2</p> </div> <p>(ii) The most suitable place / block to house the server of this organisation would be Raj Building, as this block contains the maximum number of computers, thus decreasing the cabling cost for most of the computers as well as increasing the efficiency of the maximum computers in the network.</p> <p>(iii)</p> <p>(a) Switch/hub will be placed in all blocks to have connectivity within the block.</p> <p>(b) Repeater is not required between the blocks as the distances are less than 100 mts.</p> <p>(iv) MAN, because MAN (Metropolitan Area Networks) are the networks that link computer facilities within a city.</p> <p>(v) Firewall</p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p>
<p>32.</p>	<p>(a) Write the output of the code given below:</p> <pre> cbse#00#eXAM </pre> <p>(b)</p> <p>Statement 1: con1.cursor()</p> <p>Statement 2: mycursor.execute(query)</p> <p>Statement 3: con1.commit()</p> <p style="text-align: center;">OR</p> <p>(a) (i) and (iv) are the possible outputs. Minimum value that can be assigned is - Y = 0. Maximum value that can be assigned is - Y = 3</p>	<p>2+3</p>

	<p>(b) Statement 1: con1.cursor() Statement 2: mycursor.execute("select * from student where Marks>75") Statement 3: mycursor.fetchall()</p>	
<p>33.</p>	<p>Advantage of a csv file: □ It is human readable - can be opened in Excel and Notepad applications □ It is just like text file</p> <pre>import csv def ADDPROD(): fout=open("product.csv","a",newline="\n") wr=csv.writer(fout) prodid=int(input("Enter Product id :: ")) name=input("Enter Product name : ") price=int(input("Enter Product Price : ")) lst=[prodid, name, price] wr.writerow(lst) fout.close() def COUNTPROD(): fin=open("product.csv","r",newline="\n") data=csv.reader(fin) d=list(data) print(len(d)) fin.close()</pre> <p>ADD() COUNTR()</p> <p>(1 mark for advantage ½ mark for importing csv module 1 ½ marks each for correct definition of ADD() and COUNTR() ½ mark for function call statements)</p> <p style="text-align: center;">OR</p> <p>Binary file: □ Extension is .dat □ Not human readable □ Stores data in the form of 0s and 1s</p> <p>CSV file □ Extension is .csv □ Human readable □ Stores data like a text file</p> <p>Program:</p> <pre>import csv def add(): fout=open("stud.csv","a",newline='\n') wr=csv.writer(fout) admno=int(input("Enter Admission No :: ")) sname=input("Enter Student name :: ")</pre>	

	<pre> per=int(input("Enter percentage :: ")) st=[fid,sname,per] wr.writerow(st) fout.close() def search(): fin=open("stud.csv","r",newline='\n') data=csv.reader(fin) found=False print("The Details are") for i in data: if int(i[2])>75: found=True print(i[0],i[1],i[2]) if found==False: print("Record not found") fin.close() add() print("Now displaying") search() </pre> <p>(1 mark for difference 1/2 mark for importing csv module 1 1/2 marks each for correct definition of add() and search() 1/2 mark for function call statements)</p>	
34.	<p>1. FID because FID has unique values. 2. Cardinality : 9 , Degree : 7 3. (i) INSERT INTO FURNITURE VALUES('D001','Computer Table','01-Nov-2018',10000,10); (ii) UPDATE FURNITURE SET price=price+1000 WHERE discount > 10;</p> <p style="text-align: center;">OR (Option for part 3 only)</p> <p>3. (a) DELETE FROM FURNITURE WHERE price <20000; (b) ALTER TABLE FURNITURE ADD WOOD VARCHAR(20);</p>	1+1+2
35.	<p>(i) Which module should be imported in the program? (Statement 1) Ans: pickle (1 mark for correct module)</p> <p>(ii) Write the correct statement required to open a temporary file named temp.dat for writing the updated data. (Statement 2) Ans: fout=open('temp.dat', 'wb') (1 mark for correct statement)</p> <p>(iii) Which statement should Aman fill in Statement 3 to read the data from the binary file, record.dat and in Statement 4 to write the updated data in the file, temp.dat? Ans: Statement 3: pickle.load(fin) Statement 4: pickle.dump(rec,fout) (1 mark for each correct statement)</p>	4
