COMPUTER SCIENCE – Code No. 083
MARKING SCHEME
Class - XII - (2025-26)

Time Allowed: 3 Hrs. **SET: 1** **Maximum Marks: 70**

Q. No.	Section-A (21 x 1 = 21 Marks)	Marks
1.	**Answer:** True **(1 mark for correct answer)**	1
2.	**Answer:** c) 30 **(1 mark for correct answer)**	1
3.	**Answer:** b) False **(1 mark for correct answer)**	1
4.	**Answer:** SHOW TABLES; **(1 mark for correct answer)**	1
5.	**Answer:** a) 2OTNM **(1 mark for correct answer)**	1
6.	**Answer:** 10#7#4#1# **(1 mark for correct answer)**	1
7.	**Answer:** 49 **(1 mark for correct answer)**	1
8.	**Answer:** SELECT * FROM EMPLOYEE WHERE COMMISSION IS NULL; **(1 mark for correct answer)**	1
9.	**Answer:** a) 7DAYS#FINISH **(1 mark for correct answer)**	1
10.	**Answer:** b) Day.pop(2)	1

	(1 mark for correct answer)	
11.	**Answer:** a) 10#25#15 20#25#25 Minimum value of first 1 Maximum value of first 4 **(1 mark for correct answer)** **(1/2 mark For minimum value)** **(1/2 mark For maximum value)**	1
12.	**Answer:** d) DISTINCT **(1 mark for correct answer)**	1
13.	**Answer:** c) 7@2&6$ **(1 mark for correct answer)**	1
14.	**Answer:** b) ['Comput', 'Program'] **(1 mark for correct answer)**	1
15.	**Answer:** c) Cardinality: 6 **(1 mark for correct answer)**	1
16.	**Answer:** d) UPDATE **(1 mark for correct answer)**	1
17.	**Answer:** b) VoIP **(1 mark for correct answer)**	1
18.	**Answer:** d) Gateway **(1 mark for correct answer)**	1
19.	**Answer:** c) An address to locate a resource on the internet. **(1 mark for correct answer)**	1
	Q20 and Q21 are Assertion(A) and Reason(R) based questions. Mark the correct choice as: a) Both A and R are True and R is the correct explanation for A. b) Both A and R are True and R is not the correct explanation for A. c) A is True but R is False. d) A is False but R is True.	
20.	**Answer:**	1

	a) Both A and R are true and R is the correct explanation for A **(1 mark for correct answer)**	
21.	**Answer:** c) A is True but R is False **(1 mark for correct answer)**	1
	Section-B (7 x 2=14 Marks)	
22.	**Answer:** A mutable object can be updated whereas an immutable object cannot be updated. Mutable object: [1,2] or {1:1,2:2} (Any one) Immutable object: (1,2) or '123' (Any one) (**1 mark for correct difference)** **(½ x 2 = 1 Mark for selecting correct objects)**	2
23.	**Answer:** **d**ef SumOfDigits(num): s=0 while num>0**:** d **=** num % 10 s=s+d num //=10 **return s** print(SumOfDigits(1234)) **(1⁄2 mark each for correcting 4 mistakes)**	2
24.	**Answer:** (A) (I) LST1.remove(50) (**1 mark for correct answer)** (II) STR1.count("is") (**1 mark for correct answer)** **OR** (B) ('Digit', 'al', 'World') **(2 marks for correct answer)**	2

25.	**Answer:**
	
	(A)
	SCORE=[200, 456, 300, 100, 234, 678]
	def ZeroEnding(SCORE):
	ZeroSum=0
	for i in SCORE:
	if i%10==0:
	ZeroSum+=i
	return ZeroSum
	print(ZeroEnding(SCORE))
	
	OR
	(B)
	CITY={1:"Sydney",2:"Tokyo",3:"Pinkcity",4:"Beijing",5:"Suncity"}
		2

	def countCity(CITY):
	for ct in CITY.values():
	if len(ct)>7:
	print(ct.upper())
	countCity(CITY)
	
	(½ mark for function definition)
	(1½ marks for the correct/similar logic)	

26.	**Answer:** LAVENDAR@8 BLUE@4 **(1 mark for the correct output of each line)**	2
27.	**Answer:** (A) (I) ALTER TABLE CAR ADD PRICE INTEGER; (II) DESC CAR; **(1 mark for each correct answer)** **OR** (B) (I) Primary Key: One or more than one attribute chosen by the database designer to uniquely identify the tuples in a relation is called the primary key of that relation. (II)Foreign key: It is used to represent the relationship between two relations. A foreign key is an attribute whose value is derived from the primary key of another relation. **(1 mark for each correct definition**)	2
28.	**Answer:** (A) (I) Web hosting-It is a service that stores and maintains a website's files on a server so that the website is accessible online. **(1mark for correct definition)** (II) Circuit Switching -A dedicated path is established between the sender and the receiver before starting data transmission. Entire data is transmitted in one go. Packet Switching Data to be transmitted is divided into small packets which are transmitted via nearest service provider till all packets reach the recipient where the packets are reassembled. **(1 mark for correct point of difference)** **OR** (B) (I) SMTP- SIMPLE MAIL TRANSFER PROTOCOL PPP- POINT TO POINT PROTOCOL **(1/2 mark for each correct expansion.)** (II) XML (Extensible Markup Language) • we can define our own tags and use them • Dynamic web development language – as it is used for transporting and storing data • Case sensitive	2

	HTML(Hyper text mark Up language) • We use pre-defined tags • Static web development language – only focuses on how data looks • It use for only displaying data, cannot transport data • Not case sensistive **(1 mark for any one correct point of difference)**	
	Section-C (3 x 3 = 9 Marks)	

29.	**Answer:**
	(A)
	def govWeb():
	f=open("URLs.txt", 'r')
	data=f.read()
	low=data.split()
	for w in low:
	if 'gov.in' in w:
	print(w)
	f.close()
	(1/2 mark for correct function header)
	(1/2 mark for correctly opening the file)
	(1/2 mark for correctly reading from the file)
	(1/2 mark for splitting the text into words)
	(1 mark for correctly displaying the result)
	
	OR
	(B)
	def COUNTLINES() :
	file = open ('Notes.txt', 'r')
	lines = file.readlines()
	count=0
	for w in lines :
	if (w[0]).isdigit():
	count = count + 1
	print ("The number of lines starting with any digit: ", count)
	file.close()
	COUNTLINES()
	(1/2 mark for correct function header)
	(1/2 mark for correctly opening the file)
	(1/2 mark for correctly reading from the file)
	(1/2 mark for correct use of counter variable)
	(1/2 mark for correctly displaying the result)
	(1/2 mark for correctly calling the function)
		3

30.	**Answer:**
	
	Hotel=[]
	def Push_element(CList):
	for i in range(len(CList)):
	if CList[i][1]=="Delux":
	L1=[CList[i][0],CList[i][2]]
	Hotel.append(L1)
	def Pop_element ():
		3

	while len(Hotel)!=0:
	x=Hotel.pop()
	print(x)
	else:
	print("Stack Empty")
	CList=[["Sunil","Delux",2000],["Mohan","Standard",1000],["Tarun","Delux",1500]]
	Push_element(CList)
	Pop_element ()
	(1½ marks for each correct part)	

31.	**Answer:** (A) CcI#KE### **(3 marks for the correct output)** **OR** (B) 9 60 PQR$ **(3 marks for the correct output)**	3
	Section-D (4 x 4 = 16 Marks)	
32.	**Answer:** (A) (I) ALTER TABLE HOSPITAL ADD PRIMARY KEY(Doc_ID); (II) SELECT * FROM HOSPITAL WHERE NAME LIKE 'S%' ; (III) SELECT MAX(CONSULTATION) FROM HOSPITAL WHERE GENDER="M"; (IV) SELECT NAME,AGE FROM HOSPITAL WHERE AGE BETWEEN 45 AND 60; **(4 x 1 mark for each correct query)** **OR** (B) (I) DEPARTMENT COUNT(*) --- ENT 3 (II) SUM(CONSULTATION) --- 1300 (III) NAME CONSULTATION --- --- Ankita 800 (IV) Doc_ID NAME -	4

	---------- D101 Ankita D103 Sameer D106 Arun **(4 x 1 mark for each correct output)**	

33.	**Answer:**
	(I)
	import csv
	def add():
	fout=open("toydata.csv","a",newline='\n')
	wr=csv.writer(fout)
	tid=int(input("Enter Toy Id :: "))
	tname=input("Enter toy name :: ")
	tprice=int(input("Enter toy price :: "))
	TD=[tid,tname,tprice]
	wr.writerow(TD)
	fout.close()
	(1⁄2 mark for correctly taking user input)
	(1⁄2 mark for opening the file in append mode)
	(1⁄2 mark for correctly creating the writer object)
	(1⁄2 mark for correctly using writerow() of writer object)
	(II)
	def search():
	fin=open("toydata.csv","r",newline='\n')
	data=csv.reader(fin)
	print("The Details are: ")
	for i in data:
	if int(i[2])>500:
	print(i[0],i[1],i[2])
	fin.close()
	add()
	search()
	(1⁄2 mark for opening the file in read mode)
	(1⁄2 mark for correctly creating the reader object)
	(1⁄2 mark for correctly checking the condition)
	(1⁄2 mark for correctly displaying the result)
		4

34.	**Answer:** (I) SELECT * FROM BOOK ORDER BY PRICE DESC; (II) UPDATE BOOK SET PRICE=PRICE+PRICE*0.1 WHERE TYPE=”Comic”; (III) SELECT TYPE,COUNT(*) FROM BOOK GROUP BY TYPE; (IV) (A) SELECT BOOK.CODE,BNAME,MNAME,ISSUEDATE FROM BOOK, ISSUED WHERE BOOK.CODE=ISSUED.CODE; **OR** (B) SELECT * FROM BOOK,ISSUED;	4

	(4 x 1 mark for each correct query)	
35.	**Answer:** import mysql.connector as mys Mydb=mys.connect(host = 'localhost', user = 'root', password = 'tiger', database = 'SPORTS') MyCursor = Mydb.cursor() GID = input("Game ID:") Query = "DELETE FROM Game WHERE GameID='{}'".format(GID) MyCursor.execute(Query) Mydb.commit() Mydb.close() **(1⁄2 mark for correctly importing the connector object)** **(1⁄2 mark for correctly creating the connection object)** **(1⁄2 mark for correctly creating the cursor object)** **(1 mark for correct delete query)** **(1 mark for correctly executing the query with commit)** **(1⁄2 mark for correctly closing the connection)**	4
	Section-E (2 X 5 = 10 Marks)	

36.	**Answer:**
	(I)
	import pickle
	def Create():
	F=open("TRAIN.DAT", "wb")
	Rec=[]
	while True:
	PNR=input("PNR No:")
	PName=input("Name: ")
	BRDSTN=input("Boarding at: ")
	DESTN=input("Destination: ")
	FARE=float(input("Fare: "))
	Rec.append([PNR,PName,BRDSTN,DESTN,FARE])
	C=input("More(Y/N)?")
	if C =='N':
	break
	pickle.dump(Rec,F)
	F.close()
	(II)
	def SearchDestn(P):
	F=open("TRAIN.DAT", "rb")
	Data=pickle.load(F)
	for R in Data:
	if R[3]==P:
	print(R)
	F.close()
	(III)
		5

```
def update():
    lst=[]
    f = open("TRAIN.dat","rb+")
    while True :
        try:
            train_rec = pickle.load(f)
            for R in train_rec:
                R[4] = R[4] - R[4] * 0.05
            lst.append(train_rec)
        except EOFError:
            break
        f.seek(0)
        for i in range(len(lst)):
            pickle.dump(lst[i], f)
        else:
            print("Price Updated!!!")
```

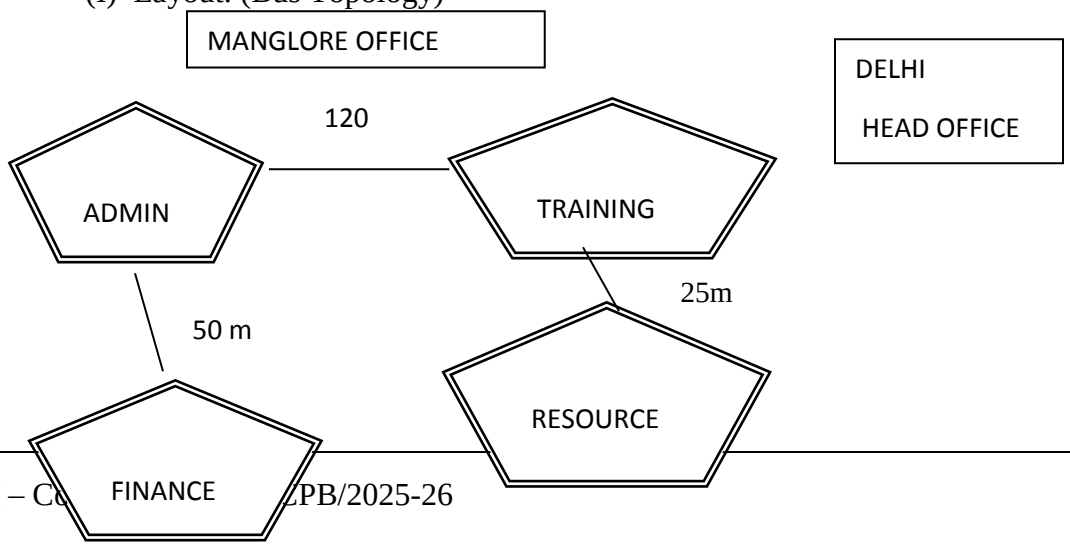
(I)
(½ Mark for opening the file in correct mode)
(½ Mark for accepting from user/writing on file)

(II)
(½ Mark for opening the file in correct mode)
(½ Mark for reading each record)
(½ Mark for correctly checking the condition)
(½ Mark for correctly printing the details of passengers)

(III)
(½ Mark for opening the file in correct mode)
(½ Mark for reading data)
(½ Mark for correctly modifying the Fare)
(½ Mark for writing the modified Fare in the Binary File)

37. **Answer:** 5

(I) Layout: (Bus Topology)



	Total cable length = 195 m may be considered as cable length is short. OR (Any other valid efficient cable layout) (II) The most suitable place to house the server is the TRAINING building. In the TRAINING building we have the maximum number of computers installed (150 no's), so as per the 80 - 20 network design rule the server should be placed in that building where the network traffic is maximum localized which reduces the cabling cost and increases the efficiency. (III) • Repeater is needed in bus layout between ADMIN and TRAINING building because according to this layout the distance between buildings ADMIN and TRAINING is more than 100m. • Switch is to be installed in each building as it gives connectivity to all computers in the network with dedicated band width. (IV) Optical Fiber (V) (A) WAN – as the network is spread across different geographical locations of the country. **OR** (B) FTP is used to transfer Files from one computer to another computer over the internet. **(5 x 1 mark for each correct part)**	