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PRACTICE PAPER-II
Class-XII
Subject: Computer Science (083)
Marking Scheme Cum Model Answer-Sheet

SECTION-A(1*21=21 MARKS)		
QN	Answer of Question	
1.	Ans. True, as continue keyword skips remaining part of an iteration in a loop.	1
2.	Ans. (c) "uter", as it counts from 4 index to last index	1
3.	Ans: (b) True, as firstly "not" performed then "And" performed and at last "Or" performed. True or not True and False True or False and False True or False True	1
4.	Ans. (d) dict_student.update(dict_marks), as we use update method for dictionary merging with syntax dict1.update(dict2)	1
5.	Ans. (b) tuple, as Elements enclosed in parentheses() represents by tuple.	1
6.	Ans: (d) (40,60), as this expression will slice the given tuple starting with index position 3 and selecting every second element till index number 7.	1
7.	Ans. (c) None, as it is empty value.	1
8.	Ans. (c) 512, as $2^{**3}^{**2} = 2^{**9} = 512$ is the answer.	1
9.	Ans. (b) Statement 4, as string's individual element can't assigned new value so S[0]='@' # Statement 4 give error.	1
10.	Ans. (c) <pre>F=open('Notes.txt') print(F.read(10))</pre> <p>As read method in python is used to read at most n bytes from the file associated with the given file descriptor. If the end of the file has been reached while reading bytes from the given file descriptor, os.read() method will return an empty bytes object for all bytes left to be read.</p>	1
11.	Ans. (a) Pickling, as pickling is used for object serialization in handling of Binary Files.	1
12.	Ans. (d) n is local and x is global variable As n is defined within function body and x is defined outside the function body.	1
13.	Alter- Add command is used to add a new column in table in SQL.	1
14.	Ans. (b) DISTNICT, as DISTNICT Keyword is used to obtain Non-duplicated values in a SELECT query.	1
15.	Ans. (c) sum(), as it's used for summation of numeric values in a column.	1
16.	Ans. (a) Mycur.fetch(), as it's not a valid method for fetching.	1
17.	Ans. (c) Both Modualtion & Demodulation, as MODEM does both tasks.	1
18.	Ans. (c) HomePage, as it is the first page that normally view at a website.	1
19.	Ans: Topology is the way of connecting the networking devices.	1
20.	Ans: (a) Both A and R are true and R is the correct explanation for A As global variables are accessed anywhere in the program and local variables are accessed only within the boundary of loop/ condition/ function.	1

21.	Ans: b) Both A and R are true and R is not the correct explanation for A	1				
SECTION-B (2*7=14 MARKS)						
22	Valid identifier(s) (i) Total (iv) great (vi) li1 (viii) _Data As identifier(s) names may be started with alphabet or underscore. A digit may be there between the name. Invalid identifier(s) (ii) @selute (iii) Que\$tion (v) 4 th Sem (vii) No# As identifier(s) name does not have any special character except underscore. Name should not start with digit and not any space is there in name.	½ *4= 2				
23	i) Names of any two data types available in python: int, float or any other valid datatype in python. ii) Any 2 operators name used in python: Arithmetic, Logical, Relational or any other valid operator in python.	1+1 =2				
24	(i) A) str="PYTHON@LANGUAGE" print(str[2: :]) OR B) d=dict() (ii) A) s="LANGUAGE" l=list(s) OR B) t=tuple()	2				
25	Lower = r.randint(1,3) means Lower will have value 1,2, or 3 Upper =r.randint(2,4) means Upper will have value 2, 3, or 4 So K will be from (1, 2, 3) to (2, 3, 4) Means if K=1, then upper limit (2,3,4) If K=2, then upper limit (2,3,4) If K=3, then upper limit (2,3,4) So correct answer (ii) 30#40#50# Maximum values of variables Lower and Upper are 3 and 4.	2				
26	COUNT(*) returns the count of all rows in the table, whereas COUNT (COLUMN_NAME) is used with Column_Name passed as argument and counts the number of non-NULL values in the particular column that is given as argument. Example: A MySQL table, sales have 10 rows with many columns, one column name is DISCOUNT. This DISCOUNT column has 6 valid values and 4 empty/ null values. When we run the Following queries on sales table. SELECT COUNT(*) FROM sales; <table border="1" style="margin-left: 40px;"><tr><td>COUNT(*)</td></tr><tr><td>10</td></tr></table> SELECT COUNT(DISCOUNT) FROM sales; <table border="1" style="margin-left: 40px;"><tr><td>COUNT(DISCOUNT)</td></tr><tr><td>6</td></tr></table> As in table, there are 10 rows so count(*) gives 10 and discount column is having 6 valid values with 4 NULL values so it gives 6.	COUNT(*)	10	COUNT(DISCOUNT)	6	2
COUNT(*)						
10						
COUNT(DISCOUNT)						
6						
27	i)	1+1				

.	<p>A) Default constraint should be applied on a table's column to provide it the default value when column does not have any value. OR B) Unique constraint should be applied on a table's column so that NULL value is allowed in that column and duplicate values are not allowed. ii) A) SQL command to add one more column in previously defined table, named CELL. Column name is CELL_ID with size 10 of integral type should be added in the table Alter table CELL ADD CELL_ID(10) int; OR DROP table CELL;</p>	=2						
28	<p>(A) VOIP-Voice Over Internet Protocol Utility-VoIP is used to transfer audio (voice) and video over internet URL- Uniform Resource Locator Utility-Place for typing website names in web browser. OR (B)</p> <table border="1" data-bbox="272 831 1257 1039"> <thead> <tr> <th data-bbox="272 831 762 875">IP Address</th> <th data-bbox="762 831 1257 875">MAC Address</th> </tr> </thead> <tbody> <tr> <td data-bbox="272 875 762 936">Internet Protocol Address</td> <td data-bbox="762 875 1257 936">Media Access Control Address</td> </tr> <tr> <td data-bbox="272 936 762 1039">It is 4 bytes address in IPV4 and 6 bytes address in IPV6</td> <td data-bbox="762 936 1257 1039">It is 6 bytes address.</td> </tr> </tbody> </table> <p>Or any other valid difference between the two. (1 mark for ANY ONE difference)</p>	IP Address	MAC Address	Internet Protocol Address	Media Access Control Address	It is 4 bytes address in IPV4 and 6 bytes address in IPV6	It is 6 bytes address.	2
IP Address	MAC Address							
Internet Protocol Address	Media Access Control Address							
It is 4 bytes address in IPV4 and 6 bytes address in IPV6	It is 6 bytes address.							
SECTION-C (3*3= 9 Marks)								
29	<p>A) <pre>def countlines_et(): f=open("report.txt",'r') lines=f.readlines() linee=0 linet=0 for i in lines: if i[0]=='E': linee+=1 elif i[0]=='T': linet+=1 print("No.of Lines with E:",linee) print("No.of Lines with T:",linet) countlines_et()</pre> <p>OR B) <pre>def show_todo(): f=open("abc.txt",'r') lines=f.readlines() for i in lines: if "TO" in i or "DO" in i: print(i) show_todo()</pre></p> </p>	3						
30	A)	3						

	<pre> data = [1,2,3,4,5,6,7,8] stack = [] def push(stack, data): for x in data: if x % 2 == 0: stack.append(x) def pop(stack): if len(stack)==0: return "stack empty" else: return stack.pop() push(stack,Data) print(pop(stack) </pre> <p>(½ mark should be deducted for all incorrect syntax. Full marks to be awarded for any other logic that produces the correct result.)</p> <p>OR</p> <p>B)</p> <pre> def push(EventDetails): BigEvents=[] count=0 for i in EventDetails: if EventDetails[i]>200: BigEvents.append(i) count+=1 print("The count of elements in the stack is",count) def pop(EventDetails): if len(EventDetails)==0: return "Dictionary is empty" else: return EventDetails.pop() push(EventDetails) print(pop(EventDetails)) </pre> <p>(½ mark should be deducted for all incorrect syntax. Full marks to be awarded for any other logic that produces the correct result.)</p>	
31	<p>A)</p> <p>(i) SELECT EMP_NAME, BASIC+DA+HRA+NPS AS "GROSS SALARY" FROM EMPLOYEE;</p> <p>(ii) UPDATE EMPLOYEE SET DA=DA+0.03*BASIC;</p> <p>(iii) ALTER TABLE EMPLOYEE DROP COLUMN EMP_DESIG;</p> <p>OR</p> <p>B)</p> <p>(i) SELECT COUNT(*) FROM EMPLOYEE;</p> <p>(ii) SELECT * FROM EMPLOYEE ORDER BY basic desc;</p> <p>(iii) SELECT SUM(hra) FROM EMPLOYEE;</p>	1*3 =3
SECTION-D (4*4= 16 Marks)		
32	<p>A)</p> <p>i) When the value passed in the index operator is greater than the actual size of the tuple or list, Index Out of Range is thrown by python.</p> <p>ii)</p> <pre> value=[1,2,3,4] data=0 try: data=value[4] </pre>	1+3 =4

	<p>except IndexError: print("list index out of range is not allowed", end="") except: print("Some Error occurred", end="")</p> <p>OR B) i) When the division or modulo by zero takes place for all numeric types, ZeroDivisionError Exception is thrown by python. ii) def division(x,y): try: div=x/y print(div, end="") except ZeroDivisionError as e: print(" ZeroDivisionError Exception occurred", e, end="") except: print("Some Error occurred", end="")</p>	
33	<pre>import csv def AddNewRec(Country,Capital): f=open("CAPITAL.CSV",'a') fwriter=csv.writer(f) fwriter.writerow([Country,Capital]) f.close() def ShowRec(): with open("CAPITAL.CSV","r") as NF: NewReader=csv.reader(NF) for rec in NewReader: print(rec[0],rec[1]) AddNewRec("INDIA", "NEW DELHI") AddNewRec("CHINA", "BEIJING") ShowRec()</pre> <p>Output: INDIA NEW DELHI CHINA BEIJING</p>	2+2 =4
34	<p>i)SELECT SUM (PERIODS), SUBJECT FROM SCHOOL GROUP BY SUBJECT ;</p> <p>ii) SELECT MIN(EXPERIENCE), MAX(CODE) FROM SCHOOL;</p> <p>iii)SELECT TEACHERNAME, GENDER FROM SCHOOL, ADMIN WHERE DESIGNATION = 'COORDINATOR' AND SCHOOL.CODE=ADMIN.CODE;</p> <p>iv) A) SELECT COUNT(DISTINCT SUBJECT) FROM SCHOOL; OR B) SELECT COUNT(), GENDER FROM ADMIN GROUP BY GENDER;</p> <p>(1 mark for each correct query)</p>	1*4 =4
35	<pre>import mysql.connector as cnt def Emp_Database(): con=cnt.connect(host="localhost", user="root", password="tiger", database="company") mycursor= con.cursor()</pre>	4

	<pre>print("Display Employee whose age is more than 55 years:") mycursor.execute("select * from Emp where age>55") EmpRec= mycursor.fetchall() for rec in EmpRec: print(rec)</pre>	
SECTION-E (2*5= 10 Marks)		
36	<p>Binary Files- It is usually much smaller than a text file. For image, video and audio data this type of file is important and its extension is .det or .dat. Compiler does not need to convert these files as these files are in the machine readable form hence these files consumes less time to execute and process faster.</p> <p>(a) import pickle def AddOrder(): f=open("Stock.dat",'ab') OrderId=input("Enter Order Id") MedicineName=input("Enter Medicine Name") Qty=int(input("Enter Quantity:")) Price=int(input("Enter Price:")) data=[OrderId,MedicineName,Qty,Price] pickle.dump(data,f) f.close() AddOrder()</p> <p>(b) def DisplayPrice(): f=open("Stock.dat",'rb') try: while True: data=pickle.load(f) if data[3]>500: print(data[0],data[1],data[2],data[3],sep="\t") except: f.close() DisplayPrice()</p>	1+2 +2= 5
37	<p>i) ADM Block Justification- It has maximum number of computers. Reduce traffic.</p> <p>ii) wired medium is UTP/STP cables</p> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <pre> graph TD DEV[DEVELOPMENT] --- HR[HUMANRESOURCE] HR --- LOG[LOGISTICS] HR --- ADM[ADM] LOG --- ADM </pre> </div> <p>iii) (a) Switches in all the blocks since the computers need to be connected to the network. (b) Repeaters between ADM and HUMANRESOURCE block & ADM and Logistics block. The reason being the distance is more than 100m.</p> <p>iv) Modem should be placed in the Server building</p> <p>v) (c) OFC-Optical Fiber cable, this connection is high-speed wired communication medium.</p> <p>OR LAN will be set up among computers connected in Campus.</p>	1*5 =5