

SET	1
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**INDIAN SCHOOL MUSCAT
FIRST PRE BOARD EXAMINATION 2023
COMPUTER SCIENCE(083)**

CLASS: XII

Max.Marks: 70

MARKING SCHEME			
SET	QN.NO	VALUE POINTS	MARKS SPLIT UP
1		SECTION A	
	1.	True	1
	2.	(b) Count (*)	1
	3.	(a) 164	1
	4.	(b) ['Comput', 'Program']	1
	5.	(c) INSERT	1
	6.	(a)SMTP	1
	7.	(c)Book.update(Library)	1
	8.	(d) PYT	1
	9.	(b) tup1[2] = 20	1
	10.	(b) Rose*Jasmine*Sunflower*	1
	11.	(a) Optical Fibre Cable	1
	12.	(c) global y	1
	13.	False	1
	14.	(b) DISTINCT	1
	15.	(d) Gateway	1

	16.	(c) f.seek(10,1)	1
	17.	(a) Both A and R are true and R is the correct explanation for A	1
	18.	(b) Both A and R are true and R is not the correct explanation for A	1
		SECTION B	
	19.	<p>(i) PPP- POINT TO POINT PROTOCOL HTTP- HYPER TEXT TRANSFER PROTOCOL - ½ Mark each</p> <p>(ii) HTML(Hyper text mark Up language)</p> <ul style="list-style-type: none"> • 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 sensitive <p>XML (Extensible Markup Language)</p> <ul style="list-style-type: none"> • we can define our own tags and use them • Dynamic web development language – as it is used for transporting and storing data • Case sensitive <p>-Any Correct difference – 1 Mark</p> <p>OR</p> <p>(i) Advantages of bus topology</p> <ul style="list-style-type: none"> • Easy to implement and extend • It is very cost-effective as compared to other network <p>Disadvantages of bus topology</p> <ul style="list-style-type: none"> • Difficult to administer/troubleshoot • A cable break can disable the entire network <p>-Any one advantage and disadvantage – ½ Mark each</p> <p>(ii) Packet switching:</p> <ul style="list-style-type: none"> • no dedicated path is established from the source to the destination. • message is divided into smaller parts, known as packets and then sent forward • tight upper limit on block size • Each data unit knows only the final receiver's address <p>- 1 Mark</p>	2
	20.	<pre>def_SumOfDigits(num): s=0 while num>0: d = num % 10 s=s+d num //=10 <u>return s</u> print(SumOfDigits(1234))</pre> <p>-½ Mark each correction</p>	2

21.	<pre>def VOWELS(STR): c=0 for i in STR: if i in "aeiouAEIOU": c+=1 return c</pre> <p style="text-align: center;">OR</p> <pre>CITY={1:"Sydney",2:"Tokyo",3:"Pinkcity",4:"Beijing",5:"Suncity"} def countCity(CITY): for ct in CITY.values(): if len(ct)>7: print(ct.upper()) countCity(CITY)</pre> <p style="text-align: right;">Input – ½ Mark Correct Logic 1-Mark Print – ½ Mark</p>	2
22.	['C', 'C++', 'Python', 'FORTRAN'] – ½ Mark each value	2
23.	<p>(i) MYLIST.insert(2,500) -1Mark (ii) len(STR1) -1Mark</p> <p style="text-align: center;">OR</p> <p>import statistics -1Mark print(statistics.median(Lstdata) -1Mark</p>	2
24.	<p>(i) ALTER TABLE CAR ADD FUELTYPE VARVHAR(20). (ii) DESC CAR;</p> <p style="text-align: center;">OR</p> <p>(i) ALTER TABLE WORKER MODIFY NAME VARCHAR(20); (ii) DROP TABLE WORKER;</p> <p style="text-align: right;">-1Mark each</p>	2
25.	<p><u>OUTPUT</u> 35#19#</p> <p style="text-align: right;">-1Mark each value</p>	2
	SECTION C	
26.	<p><u>OUTPUT</u> CcI#KE###</p> <p style="text-align: right;">- Correct output 3 Marks</p>	3
27.	<p>(i) DEPARTMENT COUNT(*) - 1 Mark</p> <p style="text-align: center;">----- ENT 3</p> <p>(ii) SUM(CHARGES) - 1 Mark</p> <p style="text-align: center;">----- 950</p>	3

		<div>(iii) PNO NAME - 1 Mark</div> <div>-----</div> <div>P101 Kavita</div> <div>P103 Sunil</div> <div>P106 Varun</div>	
28.	<div>def COUNT_TLINES():</div> <div>file=open('Report.txt','r')</div> <div>lines = file.readlines()</div> <div>count=0</div> <div>for w in lines:</div> <div>if w[0]=="T":</div> <div>count=count+1</div> <div>print("Total lines ",count)</div> <div>file.close()</div> <div>(½ Mark for correctly opening and closing the file</div> <div>2 Marks for correct logic</div> <div>½ Mark for displaying the correct output)</div> <div>OR</div> <div>def COUNT_WORDS() :</div> <div>count = 0</div> <div>file=open('Health.txt','r')</div> <div>line = file.read()</div> <div>word = line.split()</div> <div>for w in word:</div> <div>if w=="DIET":</div> <div>count+=1</div> <div>print("Number of words",count)</div> <div>file.close()</div> <div>(½ Mark for correctly opening and closing the file</div> <div>2 Marks for correct logic</div> <div>½ Mark for displaying the correct output)</div>	3	
29.	<div>(i) New degree – 6 and new cardinality- 3 ½ Mark each</div> <div>(ii) UPDATE GRADUATE set STIPEND=STIPEND+0.20*STIPEND</div> <div>WHERE NAME LIKE 'R%'; -1Mark</div> <div>(iii)INSERT INTO GRADUATE VALUES(5,"SHYAM",700) -1Mark</div>	3	
30.	<div>(i) Push_Cust(CList) – correct logic -1 ½ marks</div> <div>(ii) Pop_Cust() – correct logic -1 ½ marks</div>	3	
	SECTION D		
31.	<div>(i) SELECT INAME,PRICE,COMPANY FROM ITEMS</div> <div>ORDER BY COMPANY DESC;</div> <div>(ii) SELECT INAME,PRICE FROM ITEMS WHERE PRICE</div> <div>BETWEEN 5000 AND 15000;</div>	4	

		(iii) . SELECT INAME, COMPANY,TNAME FROM ITEMS,TRADERS WHERE ITEMS.TCODE=TRADERS.TCODE; (iv) SELECT TCODE,COUNT(*) FROM ITEMS GROUP BY TCODE; -1Mark each	
32.	(i) addrec() – defines and calls ½ mark for accepting data correctly ½ mark for opening and closing file 1 mark correct logic (ii) countrec()- defines and calls ½ mark for opening and closing file ½ mark for reader object 1 mark correct logic	4	
	SECTION E		
33.	(i) Layout: (Bus Topology) <div><div><div>MANGLORE OFFICE</div><div><div>ADMIN</div><div>TRAINING</div><div>FINANCE</div><div>RESOURCE</div></div><div>90 m</div><div>50 m</div><div>25m</div></div><div>DELHI HEAD</div></div> <p>(i) Total cable length = 165 m may be considered as cable length is short. -1 Mark for the correct layout</p> <p>(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. - 1 Mark</p> <p>(iii)</p> <ul style="list-style-type: none">• Repeater is needed in bus layout between ADMIN and TRAINING building because according to this layout the distance between buildings ADMIN and TRAINING is 90mts. - ½ Mark• Switch is to be installed in each building as it gives connectivity to all computers in the network with dedicated band width. -½ Mark <p>(iv) Microwave - 1 Mark</p>	5	

		(v) WAN – as the network is spread across different geographical locations of the country. -1 Mark	
34.	<p>(i) w+ (write and read)- File is created if does not exist. If file exists, new data will replace old data (old data is lost) i.e overwrites r+ (read and write)- File must exist, otherwise error is raised. The file pointer placed at the beginning of the file. – 1 Mark each</p> <p>(ii) Opening and closing file – ½ Mark Correct try and except block – ½ Mark Correct loop and correct copying data – 1½ Marks Correct return statement – ½Mark</p> <p style="text-align: center;">OR</p> <p>(i) CSV files:</p> <ul style="list-style-type: none"> • can be viewed in spreadsheets • module CSV has to be imported <p>Text files</p> <ul style="list-style-type: none"> • can be viewed in the text editor • No specific module required to be imported <p style="text-align: right;">Correct difference – 1 Mark each</p> <p>(ii) (½ Mark for correctly opening and closing the file 2 Marks for correct logic ½ Mark for displaying the correct output)</p>	2+3=5	
35.	<p>(i) Natural Join</p> <ul style="list-style-type: none"> • The join in which only one of the identical columns existing in both tables is present • No duplication of columns -1 Mark <p>(ii) ½ mark for importing correct module 1 mark for correct connect() ½ mark for correctly accepting the input 1 ½ mark for correctly ½ mark for correctly using commit()</p> <p style="text-align: center;">OR</p> <p>(i) All keys that have the properties to become a primary key are candidate keys. The candidate keys that do not become primary keys are alternate keys. – ½ Mark each</p> <p>(ii) ½ mark for importing correct module 1 mark for correct connect() 1 mark for correctly executing the query ½ mark for correctly using fetchall() 1 mark for correctly displaying data</p>	1+4=5	