

केन्द्रीय विद्यालय संगठन , कोलकाता संभाग  
KENDRIYA VIDYALAYA SANGATHAN, KOLKATA REGION  
प्री-बोर्ड परीक्षा / PRE-BOARD EXAM. – 2023-24

कक्षा / CLASS – XII

अधिकतम अंक /MAX. MARKS – 70

विषय/SUB. - Computer Science(083)

समय/TIME – 03 घंटे/Hours

**MARKING SCHEME**

Q. No	Question	Marks
<b><u>SECTION A</u></b>		
1	True 1 mark for correct answer	1
2	(C) alter 1 mark for correct answer	1
3	False 1 mark for correct answer	1
4	c) 2 1 mark for correct answer	1
5	b. Degree=5 , Cardinality=6 1 mark for correct answer	1
6	(c) smtp and pop	1
7	c) Since “susan” is not a key in the set, Python raises a KeyError exception 1 mark for correct answer	1
8	d) False 1 mark for correct answer	1
9	d) Statement 4 1 mark for correct answer	1
10	ii) 10#30# 1 mark for correct answer	1
11	c )WAN 1 mark for correct answer	1
12	a) Nonlocal 1 mark for correct answer	1
13	c. Code that is designed to handle exception is executed 1 mark for correct answer	1
14	c) Primary Key 1 mark for correct answer	1
15	Repeater	1
16	c. ab 1 mark for correct answer	1
17	(a) Both A and R are true and R is the correct explanation for A [1 mark for correct answer]	1
18	(a) Both A and R are true and R is the correct explanation for A [1 mark for correct answer]	1
<b><u>SECTION B</u></b>		
19	secure transmission refers to the transfer of data such as confidential or proprietary information over a secure channel. Many secure transmission methods require a type of encryption. Technical ways: E-mail encryption. A number of vendors offer products that encrypt e-mail messages, are easy to use and provide the ability to send private data, including e-mail attachments, securely. ... Web site encryption. ... Application encryption. ... Remote user communication. ... Laptops and PDAs. ... Wireless networks. [1 mark for definition and 1 mark for technical ways] OR Web Browser : A web browser is a software application for accessing information on the World Wide Web. When a user requests a web page from a particular website, the web browser retrieves the necessary content from a web server and then displays the page on the user's device. Web Server : A web server is a computer that runs websites. The basic objective of the web server is to store, process and deliver web pages to the users. This intercommunication is done using Hypertext Transfer Protocol	1+1=2

	(HTTP). Popular web browsers : Google Chrome, Mozilla Firefox, Internet Explorer etc [ 1 marks for difference ½ Marks for each correct Web browser Name]	
20	<pre>def fn(a):     b=len(a)-1     for x in range(b):         for y in range (x):             if a[y]&gt;a[y+1]:                 a[y],a[y+1]=a[y+1],a[y]     return a a=[32,5,3,6,7,54,87] print (fn(a))</pre> <p>[1/2 mark for each correct answer]</p>	2
21	<pre>def duplicate(a):     b=[]     for x in a:         if x not in b:             b.append(x)     print(b) a=[] n= int(input("Enter the number of elements in list:")) for x in range(0,n):     element=int(input("Enter element" + str(x+1) + ":"))     a.append(element) duplicate(a)</pre> <p>[ 1 Marks for correct function definition , 1 Marks for any correct logic]</p> <p style="text-align: center;"><b>OR</b></p> <p>The terms parameter and argument can be used for the same thing: information that are passed into a function. From a function's perspective:</p> <ul style="list-style-type: none"> <li>• <b>A parameter</b> is the variable listed inside the parentheses in the function definition.</li> <li>• <b>An argument</b> is the value that are sent to the function when it is called.</li> </ul> <p>Arguments are often shortened to args in Python documentations. By default, a function must be called with the correct number of arguments. Meaning that if your function expects 2 arguments, you have to call the function with 2 arguments, not more, and not less.</p> <pre>def my_function(fname, lname):    # Parameters     print(fname + " " + lname)  my_function("KVS RO", "KOLKATA") #Arguments</pre> <p>[1/2 Marks for correct explanation ½ Marks for correct example of each Parameter and Argument]</p>	2
22	<p>(i) &lt;class 'tuple'&gt; (ii) None</p> <p>[1 Mark for each correct answer]</p>	2
23	<p>(i) The <b>remove()</b> method removes the first occurrence of the element with the specified value. L1.remove(value)</p> <p>(ii) The <b>count()</b> method returns the number of elements with the specified value. L1.count(value)</p> <p>[1 marks for each correct answer]</p> <p style="text-align: center;"><b>OR</b></p> <pre>student_gender=['B','G','B','G','G','B'] if student_gender.count('B')&gt;student_gender.count('G'):     print("Boys are more in the class") else:</pre>	1+1=2

	<pre>print("Girls are more in the class")</pre> <p>[1 marks for correct use of count function+1 marks for proper use of if ]</p>	
24	<p>Create table Library (Bid varchar(4) PRIMARY KEY, Name varchar(20), Author varchar(20), Price int, Mem_name varchar(20), Issue_Date date, Status varchar(10));</p> <p>Alter table Library modify Author varchar(25);</p> <p>[ 1 mark for each correct answer]</p> <p style="text-align: center;"><b>OR</b></p> <p>DDL: DROP TABLE, ALTER TABLE DML: INSERT INTO, UPDATE...SET</p> <p>[ ½ mark for each correct answer]</p>	2
25	[76,56,9,78,45,34,4,20] [1/2 Mark for every correct placement of 2 values]	2
<b>SECTION C</b>		
26	<p>pYtHONn#3#9#6#bIT</p> <p>[1 Mark for partial correct output] [2 Marks for correct output without considering case] [3 Marks for correct output]</p>	3
27	<p>i) 5 (1 mark for correct output)</p> <p>(ii)9 (1 mark for correct output)</p> <p>(iii) Error –As where is used with Group by , where is used after group by (1 mark for correct answer)</p>	1X3=3
28	<pre>def vowels():     f=open('story2.txt','r')     s1=f.read()     c=0     l=['a','e','i','o','u']     for x in s1:         if x in l:             print(x)             c=c+1     print('Count of vowels in file',c) vowels()</pre> <p>[1 Mark for correct syntax + 1 mark for correct logic + 1 marks for proper utilization of loop and function ] Note – Logic of the program can differ</p> <p style="text-align: center;"><b>OR</b></p> <pre>def remove_lowercase(infile, outfile):     output=file(outfile,"w")     for line in file(infile):         if not line[0] in "abcdefghijklmnopqrstuvwxy":             output.write(line)     output.close()</pre> <p>[1 Mark for correct syntax + 1 mark for correct logic + 1 marks for proper definition of function] Note – Logic of the program can differ</p>	3
29	<p>(i)ECode (ii)Delete from HRDATA where EName = "Jeevan"; (iii)Update HRDATA set Remn = Remn + (0.1*Remn) ;</p> <p>[1 mark for each correct answer]</p>	1X3=3
30	<pre>Book={'CS':450, 'IP':550,'PhEdu':1070,'Account':360,'Bst':600,'Physics':1200, 'Chemistry':1400, 'Biology':900} stack_book=[]</pre>	3

	<pre> stack_price=[] def Push_book():     for x,y in d.items():         if y&gt;1000:             stack_book.append(x)             stack_price.append(y) def Pop_book():     if len(stack_book)==0:         print("underflow")     else:         print(stack_book.pop()) print(stack_price.pop()) </pre> <p>[1 mark for push+1 mark for pop+1 mark for correct logic and syntax]</p>	
<b>SECTION D</b>		
31	<p>(i) select bname, auname, price from books where bid like "comp%";  (ii) update books set price = price + 50 where bid like "hist%";  (iii) select * from books order by price;  (iv) select bid, bname, qty_issued from books, issued where books.bid = issued.bid;</p> <p>[1 mark for each correct SQL query ]</p>	<b>1X4=4</b>
32	<pre> file=open('India1.txt','rb') file.seek(10) print('Current Position of the Cursor',file.tell()) lines=file.read(7) print(lines.decode()) print('Current Position of the Cursor',file.tell()) file.seek(2,1) print('Current Position of the Cursor',file.tell()) lines=file.read(7) print(lines.decode()) print('Current Position of the Cursor',file.tell()) file.seek(-5,2) print('Current Position of the Cursor',file.tell()) lines=file.read(7) print(lines.decode()) file.close() </pre> <p>[1/2 marks for each correct answer]</p>	<b>4</b>
<b>SECTION E</b>		
33	<p>(i) Admin Block  <b>(1 mark for correct answer)</b></p> <p>(ii)</p> <div data-bbox="165 1592 722 1742" data-label="Diagram"> <pre> graph TD     M((MANAGEMENT)) --- A[ADMIN]     MED((MEDICINE)) --- A     L((LAW)) --- A </pre> </div> <p><b>(1 mark for correct answer)</b></p> <p>(iii) Modem or Switch or Router  <b>(1 mark for correct answer)</b></p> <p>(iv) Ethernet Cable  <b>(1 mark for correct answer)</b></p> <p><b>(v) Admin block ,as server is fixed due to maximum number of computers.</b></p>	<b>1X5=5</b>
34	<p><b>(i)Difference between r+ and w+</b>  Let's now discuss the key differences between r+ and w+ modes in Python:</p>	<b>2+3=5</b>

	<ol style="list-style-type: none"> <li><b>Opening a file:</b> r+ mode opens the file if it exists, while w+ mode also opens the file, but it deletes all the content present in the file. The pointer in both cases is present at the start of the file.</li> <li><b>Making a new file:</b> If the file does not exist, r+ throws an exception error of 'filenotfound' while w+ creates a new empty file. No error message is thrown in w+ mode.</li> <li><b>Reading a file:</b> r+ helps in the complete reading of the file, while w+ doesn't allow the same. As opening a file in w+ erases all the contents of the file, one can not read the content present inside the file.</li> <li><b>Writing a file:</b> r+ overwrites the file with the new content from the beginning of the document, while w+ deletes all the old content and then adds the new text to the file.</li> <li><b>Error Message:</b> r+ throws an exception or an error message if the file does not exist, while w+ does not throw any error message; instead, it creates a new file. [1 Mark for each correct difference , any 2 difference]</li> </ol> <p><b>(ii)</b>  <pre>f=open("say_an.txt","r") for line in f:     words=line.split() for i in words:     for letter in i:         if(letter.isdigit()):             print(letter) f.close()</pre> [1 Mark for logic+1 mark for syntax+1 mark for using file operation]</p> <p style="text-align: center;"><b>OR</b></p> <p><b>(i)</b> In text mode, Python automatically handles the encoding and decoding of the data, depending on the platform's default encoding scheme. Binary files, on the other hand, are files that contain non-text data, such as images, audio files, and executable files. [2 Marks for correct explanation]</p> <pre>def COUNTLINES(): file=open('STORY.TXT','r')     lines = file.readlines()     count=0     for w in lines:         if w[0]=='M' or w[0]=='m':             count=count+1 print("Total lines ",count) file.close()</pre> [1 Mark for logic+1 mark for syntax+1 mark for using file operation]	
35	<p>(a) CHAR is a fixed length datatype.  VARCHAR is a variable length datatype.  [2 marks for correct difference]</p> <p><b>(b)</b>  mysql.connector  con.cursor()  mycursor.fetchall()  [1 mark each for correct answer]</p> <p style="text-align: center;"><b>OR</b></p> <p><b>(a) UNIQUE:-</b> Ensure that all values in a column are different.  <b>DEFAULT:-</b> Provides a default value for a column when none is specified.</p>	2+3=5

[2 marks for correct difference]

**(b)**

```
import mysql.connector
```

```
def insertrecord():
```

```
    ans='y'
```

```
    mydb=mysql.connector.connect(host="localhost",user="root",
```

```
    passwd="kvs",database="project")
```

```
    mycursor=mydb.cursor()
```

```
    while(ans=='y'):
```

```
        a=int(input("Enter the Roll Number:"))
```

```
        b=input("Enter the Name:")
```

```
        c=input("Enter the City:")
```

```
        query1="insert into student(Rollno,Name,City)values(%s,%s,%s)"
```

```
        val=(a,b,c)
```

```
        mycursor.execute(query1,val)
```

```
        for i in mycursor:
```

```
            print(i)
```

```
        mydb.commit()
```

```
        ans=input("Do you want to insert another record:")
```

```
    [ 1 Mark for connectivity +1 mark for insert +1 mark for loop]
```