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SESSION ENDING EXAMINATION 2018-19

Subject : Informatics Practices

Time : 3 hrs.]

CLASS - XI

[M.M. : 70

Instructions

- (i) There are total 7 question divided into parts. Each question carry 10 marks
- (ii) There are internal choices in Q2(e)3(b)3(c),5(c) 6(b) and 6(c). You can attempt any one part of these questions.
- (iii) Weightage of each question are given against it.

Q.1	Answer the questions	
(a)	Name the functional component of Computer System.	1
(b)	Both calculator and computer can perform calculation faster. What kind of operations a computer can per but calculator cannot?	1
(c)	Identify the valid and invalid identifiers MyDiary, 1num, File123, _Clear, Mynameisking, while, Your.story, If	2
(d)	What is the function of Memory? What are its measuring units?	2
(e)	What is the difference between Compiler and Interpreter	2
(f)	What will be the output of the following code i. type(34) ii. print(10,20,30,sep='*',end='@')	2
Q.2	Answer the questions	
(a)	What is range() function?	1
(b)	Write a Python script that will accept two integer value from the user and print the average of two number.	2
(c)	What is mutable and immutable data objects in Python? Name any one of each type	2
(d)	What is the difference between // and % operators? Explain with suitable example.	2
(e)	Write a program that will accept an integer value from the keyboard and check its divisibility by 4 and print "Divisible" or "Not divisible"	3
OR		
	What is iteration/looping? Write a Python code to print numbers 1 to 10 using any iterative statement.	
Q.3	Answer the questions	
(a)	Write a program then will take a number from the key board and find its presence in the list [10, 20, 30, 40, 50, 60]. It will print "Availabe" or "Not available"	3
(b)	The code print('1' * 4) will print 1 four times 1 1 1 1 Using above string replication technique print the following pattern using any loop. Hello Hello Hello Hello Hello Hello	3
OR		
	Write a Python program that accept Principal amount, Time in years and Rate of Interest from the user and find Simple Interest.	
(c)	(i) How is dictionary different from other sequence types such as string, tuple and list? (ii) List1=[13,18,16,16,13,18] Write the appropriate code to find the index number of 16 (iii) What will be the result of the following code? Str1="computer" print(Str1[0: 8 : 2]) (iv) Write code to create an empty tuple.	4
OR		

(i) Write a function BigNum() that take two integer numbers and return the largest one.
 (ii) What is pseudo code and decision tree?

Q.4 Answer the questions

(a) Name any two data structures of Panda? 1

(b) What is the Series.shape attribute? 1

(c) Write code to create following 2D Array and print its dimensions 2
 10 12 14 18
 21 22 27 40

(d) What is Series Data Structure? 1

(e) What is head() and tail() function ? What is the default value for head() and tail() function? 2

(f) List1=[1,2,3,4]
 List2=['a','b','c','d']
 Write appropriate code to create an object of Series where List1 is index and List2 is data. 3

Q.5 Answer the questions

(a) A series obj1 stores following data 2

Obj1	
A	10
B	20
C	30

What will be the output of the following command

- (i) Obj * 2
- (ii) Obj > 15

(b) What is dataframe? 1

(c) Write code to create following DataFrame? 4

	Roll	Name
0	101	Atul
1	102	Manish
2	103	Suresh

Roll and Name are columns and 0 1 2 are index

OR

Consider the following two data frames named df1 and df2

df1

	A	B	C
0	10	20	30
1	5	10	15
2	2	4	6

df2

	A	B
0	2	1
1	2	1
2	2	1

What will be the output of following binary operations

- (i) df1+df2
- (ii) df1.mul(df2)
- (iii) df1.sub(df2)
- (iv) df.div(df2)

(d) Name the functions of panda object to do the following 2
 (i) to Detect missing Values

	(ii) to Drop missing Values																																																																														
(e)	Expand the term CSV.	1																																																																													
Q.6	Answer the following																																																																														
(a)	Write one word answer with the reference of RDBMS i. A Table is also called _____ ii. A Field with special meaning is called _____ iii. A Field in your table which is primary key of other table _____ iv. To get the data from two table we need to _____	2																																																																													
(b)	A table STUDENT have following structure with sample data <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Rollno</th> <th>AdmNum</th> <th>RegNum</th> <th>Aadhar</th> <th>Name</th> <th>Class</th> </tr> </thead> <tbody> <tr><td>1</td><td>1343</td><td>R1001</td><td>344443</td><td>Dinesh</td><td>XI</td></tr> <tr><td>2</td><td>1432</td><td>R1002</td><td>676765</td><td>Rajesh</td><td>XI</td></tr> <tr><td>3</td><td>4321</td><td>R1003</td><td>323276</td><td>Mohan</td><td>XI</td></tr> <tr><td>1</td><td>7676</td><td>R1004</td><td>645112</td><td>Rajesh</td><td>X</td></tr> <tr><td>2</td><td>1354</td><td>R1005</td><td>548989</td><td>Sarita</td><td>X</td></tr> </tbody> </table> (i) Identify the candidate key/keys of the table (ii) How many Primary Keys the above table can have?	Rollno	AdmNum	RegNum	Aadhar	Name	Class	1	1343	R1001	344443	Dinesh	XI	2	1432	R1002	676765	Rajesh	XI	3	4321	R1003	323276	Mohan	XI	1	7676	R1004	645112	Rajesh	X	2	1354	R1005	548989	Sarita	X	2																																									
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Write SQL command to create the structure of above table. You can select appropriate datatype and size of the fields of your choice																																																																															
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(c)	Write SQL Query (i) Display teacher code, teacher name and subject of all teachers. (ii) Display All the details of teacher whose Teacher Code is 104; (iii) Display all the Male teachers who are PGT (iv) Display all the details of teachers who earns between 45000 to 55000.	4																																																																													
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(i)	Write appropriate Update command to change the salary of 'Vinod' to 55000 of TEACHER TABLE																																																																														

	<p>(ii) Write appropriate Alter command ADD a new field Remark varchar (20) in TEACHER table.</p> <p>(iii) Write a SQL Command to delete all data of STUDENT table</p> <p>(iv) Which command display the structure of a table</p>	
(d)	<p>What will be the output of following SQL queries? Select Tcode,Tname,Dno,DNAME,ADDRESS FROM TEACHER,DEPARTMENT WHERE DEPARTMENT.DEPT=TEACHER.Dno and Dno=20</p>	2
Q.7	Answer the questions	
(a)	<p>Find the appropriate meaning of ANY FOUR statements from the given options (Virus, Worm, Trojan, Adware, Spamming, Fishing, Bullying, Cookies, Spyware, Eavesdropping)</p> <p>(i) A site that attempt to read your username and password.</p> <p>(ii) Your computer started malfunctioning like some programs are not working.</p> <p>(iii) A small file created in clients computer when a user visit a Website</p> <p>(iv) Unauthorized monitoring of others communication</p> <p>(v) Harassing, embarrassing, threatening someone over Internet or phone</p> <p>(vi) Bulk of emails sent by the unknown sender</p>	2
(b)	What is Cyber Crime? Discuss any 4 act of cyber crime	2
(c)	What is Private Browsing? Why it is called safe browsing?	1
(d)	What major precautions will you take to protect your system from various threats	2
(e)	<p>Consider the Following conversation and answer the question</p> <p>Person 1:- What's your name? Person 2:- Radha</p> <p>Person 1:- What is the name of your first school? Person 2 :- Army Public School</p> <p>Person 1 :- What are your Father and Mother name? Person 2 :- Krishna and Sarita</p> <p>Person 1 :- Who is your favorite actor or actress? Person 2 :- Amitabh</p> <p>Person 1:- What is the name of your pet animal? Person 2 :- Tommy</p> <p>Person 1 :- Where were you born and when? Person 2:- Ajmer on 15 March 2002</p> <p>Person 1 :- May I use your Laptop for online banking for fees payment Person 2 :- Sure</p> <p>(i) Who may be Victim of Cyber Crime Person1, Person 2 or both? Justify your answer</p> <p>(ii) Who is doing Ethical Hacking person1 or person2? Justify your Answer</p> <p>(iii) Person 2 was using Key Logger software in his computer. What is it?</p>	1 1 1 1 1 1 1 1