KENDRIYA VIDYALAYA SANGATHAN, JAIPUR REGION **Pre-Board-III Examination 2020-21 Informatics Practices**

Class 12

Time Allowed: 3 hours

Maximum Marks 70

General instructions:-

This question paper contains two parts A and B. Each part is compulsory. 1.

2. Both Part A and Part B have choices.

3. Part-A has 2 sections:

- Section -I is short answer questions, to be answered in one word or one • line.
- Section II has two case studies questions. Each case study has 4 case-based subparts. An examinee is to attempt any 4 out of the 5 subparts.
- 4. Part B is Descriptive Paper.
- 5. Part- B has three sections Distance in Advances of the Pro-

Section-I is short answer questions of 2 marks each in which two questions а. have internal Intransmuchael as errors options. b.

Section-II is long answer questions of 3 marks each in which two questions have internal options. 1. 编制 [4] [4]

Section-III is very long answer questions of 5 marks each in which one C. question has internal option. question has south in the for parts-

	1 The second state and the sec		
2.1.1	Part - A	1999	
· · F [.] f	Section - I		
1.1F	has the section Attempt any 15 questions from questions 1 4		
<mark>ب</mark> 1	State True or False: a. Public Domain Software is free and can be used with restrictions.		
4	a. Public Domain Software is free and cost 1 and in		1
	b. Free software is same as freeware.	ons.	
2	To save the plot, we use mult 0.6		
	To save the plot, we use graph () function.		1
3	Dioup interious are also known as		1
4	To create a series object. method is		1
5	he series object is automatically indexed to the		1
	The series object is automatically indexed, if it has five items what the indexes at an answer of the indexes of the indexes of the items what	t are	1
6 i	ATT OT Music is summarization of Cash The		-
7			
	induction internet and internet	uuta.	
1991		3 19 1	1
3	Matplotlib allows you to create		
E	Tha. Table product of the and the		1
	b. Charts		•
1			

		1
	c. Maps	
9	d. Infographics In all computers share equivalent responsibility for	
	processing data.]
10	Which amongst the following is the first page we normally view on a	
	Website?	
	a. Home Page	
	b. Master Page	
	c. First Page	
	d. Banner Page	
11	The now()function in MySql is an example of.	
	a. Math function	
	b. Text function	
	c. Date Function	
	d. Aggregate Function	
12	Which of the following is not a type of a cybercrime?	
	a. Data Theft	
	-b. Forgery	
9	c. Damage to data apuse s anarrie (h.) appeel of appendix	· · · · ·
	P. d. Installing Antivirus	
13	In a dataframe, axis-0 is for a contract and the contract of the	
15	a. Columns	
	b. Rows	
	C. Rows and columns both	
	^c d. All of the above.	
14	Wi-fi, infrared, and Bluetooth are examples of	
15	Digital Signature meets the need for	1
16	Digital Signature meets the need for and integrity.	- 1
17	A set rules that govern the Internet is called	
1/	The term "Intellectual Property Rights" covers:-	
	a. Copyrights b. Trademarks c. None of the above	
	d A None of the phone	
1		
18	The	• · · ·
10	column or expression.	i
19	Which clause is used in succession to all the states of th	
17	Which clause is used in query to place the condition on groups in MySQL.	
	-a. where	
]	b. Group by	
	c. Having	
	d Both a & c	
	d. Both a & c	
14	Viel at the end I and a start of the	
	「Life通行」と「小小小口類なす S-101」に出ていた。	
· · · · · · ·	A Steriord van her werting for an entre	

20	What in the second states	
	What is the use of bridge in the network?	1
	a. To connect LANs.	
	b. To separate LANs.	
	c. To control network speed.	
21	d. All of these.	
21	A repeater handles different protocols. (True/False)	1
	Section -II	
	Both the case study based questions (22 & 23) are compulsory. Attempt any	
	four sub parts from each question. Each sub question carries 1 mark.	
22		
22	Consider the following data frame and answer any four questions from I	
	CODE PNAME PRICE	
	0 x01 Talcum powder 200	
	1 x02 Face wash 50	
	2x03Bath soap403x04Shampoo200	
	200 200	
(i)	100th paste 300	
	Write a command that will display code 'x01' complete record.	1
	a. print(df.loc[0])	
	$\mathbf{b. print(df.loc[0:1])}$	
	c. print(df.loc[0, 'pname'])	
	\downarrow <u>a.</u> print(df.loc[0:])	
(ii)	Write command to display only column pname:	1
	a. print(df['pname'])	-
	b, print(df,loc['pname'])	
	1. 新聞記 的复数 新聞記載 化合理 化合理 化合理 化合理 化合理 化合理 化合理化合理 化合理化合理 化合理化 化合理化 化合理化	
	d. none of the above	
(iii)	Write output of the code: an frame and and any sour que to the north	1
	Harder[out])	
(iv)	Write output of the code:	1
	print(df.loc[0:2,'code']) and 200	1
(v)	Write the command to generate the following output:	
		1
	$ \frac{1}{2} \times 01 \xrightarrow{\text{Sharp}}{\text{Talcum powder}} 200 $	
	1 x02 Face wash 501	
22		
23	Consider table student and attempt any four queries from I to V	
	Name and Rollno Marks	
	Mehak 11 1 10 10 99	
	$ Anis_{10,100,11} 2 0; $	
7	Sushant 3 89	
	Uzmannacht 4 motte Null	i i
(i)	To display the detail of student whose marks are not entered.	
·		1
	d and a heralise 3	
1,1,1	VE PAR - PARE AND A PA	
	$\rho_1(m, 1)[0, 2]$	
	nie Engenne statu († 1919) Manina – Mennes dan et de ale dan de s	

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	(2) Solort \mathbf{x} C	
	(a) Select * from student where marks= null;	
	(b) Select * from student where marks is mult	
	(c) Select * from student where marks= 0;	
(ii)	Display the detail of students in a descending order of rollno	
	(a) Select * from student where order by rollno;	
	(b) Select * from student order by rollno;	
	(c) Select * from student order by rollno desc;	
	(d) Select * from student where and the liter is	
	(d) Select * from student where order by rollno desc;	
(iii)	Write a guarante	
(111)	Write a query to generate the output:	1
	ucase(name) marks ++	
	MEHAK 99	
	ANIS 79	
	SUSHANT 89	
	UZMA I I NULL LAN MARK I INT = IN IN	•
	$+-\frac{1}{(1-1)^{2}(1-1)^{2}} + \frac{1}{(1-1)^{2}} +$	
	(a) Select ucase(name), marks from student;	
-	(b) Select name, marks from student;	
	(d) Select (aprital (name) rolling from students	
	(d) Select capital(name), rollno from student;	
(iv)	(1.) Solate of the national order of red hor: Write guery to display minimum marks in a dose:	1
()	(a) Select minimum(marks) from student;	
	(a) Select minimum(marks) from student; (b) Select min(marks) from student;	
-	(c) Select min('marks') from student;	
() = (V (d) Both b and cn pate the output:	1
	upastic mie) [m. ras]	
(v)	Write query which generate the following output:	1
ъ.,	name rollno marks	
	$ anis 2 79 ^{8}$	
	UZ: NCL)	
	the second	
	(a) select * from student where rollno=2;	
	(b) select * from student where name='anis';	
	(c) select * from student where rollno>=2;	
	(d) both (a) & (b) at the real of the real	
-	Vister 12: yeards Ster Mart 100 years	
	(a) a sharan and a star is the and a factor	_
	$(a_1, b_2, b_3, b_3, b_3, b_3, b_3, b_3, b_3, b_3$	
1	the first state of the first sta	
	(c. Seconomination) from internet (c. for balls	

5

	PART B	
24		
24	Consider the series si	
	import pandas as pd1	2
	s = pd1.Series(500,index=[100,101,102,103,104]) print(s.index)	
	print(s.index) s1=s	
	$s_{2=s+s_{1}}$	
	print(s2)	
25	Differentiete 1	
	Differentiate between single row function and multiple row function. Give example.	2
	example.	-
	How are NULL'L volume OR	
	How are NULL values treated by aggregate functions? Give example	
26		
	Write output of the following queries: (a) select pow(2, 2);	2
	(b) select round $(1.58,1)$;	
27	Consider the series-h1	
	0 12	2
	1 - 23	
÷.	2 34+ 1 1 10 10 10 10 10 10 10 10 10 10 10 10	-
	3 127 1911 AN A CAL	
	(a) Write code to change the index as a1,a2,a3,a4.	
	t ^{en} (b) Write the name of module imported to create series	
28	Write the difference between the two queries, these two queries are	2
	generating different outputs, give reason why?:	-
ŝ	$\frac{p}{1}$ (a) Select count(*) from student;	
	(b) Select count(name) from student;	
29	Write the output of the query given:	2
	(a) Select right("Hello India",5); (b) Select mid(("Hello India",1,5);"	
	OR	
, Č	V_{1} (a) Write query to display the day name from the current date.	
	(b) Write the output of the query:	
	select dayofmonth('2020-09-23')	
30	Write python code to create the given dataframe using dictionary and	
	display.	2
	code pname price	
	0 x01 Talcum powder 200	
	1 x02 Face wash 50	
	$\begin{array}{ccc} 2 & x03 & \text{Bath soap} \\ 2 & 0 & 0 \\ \end{array}$	
8	3 x04 Shampoo 200	
	4 x05 Tooth paste 300	
	Headin 21 - Durit Ballard and Salt a	
	Vite interviewer entries and and the	
		×

21		
31	Expand the following terms:	
	(A) FTP	2
	(B) ISP	
	(C) WWW	
	(D) PAN	
32	Write two applications of Cyber law.	2
33	Mr. Amit Mishra is using his internet connection for checking the online	2
	account of company's admin without his knowledge. What do we call this	
	type of activity? What are the ways by which we can avoid such type of	
	activities?	
24	SECTION II	
34	(a) Which function is used to create the series.	3
	(b) What is the default data type of series?	
35	(c) Write the syntax to name the series "s" as 'hello'	
	Describe measures to recycle your e-waste safely. (3 ways)	3
	OR Write merits and demerits of appiel notworking (2 mint)	
36	Write merits and demerits of social networking. (3 points) Consider the code and draw the graph accordingly.	
	import numpy as np	3
	import matplotlib.pyplot as plt	
	year=[2014,2015,2016,2017,2018]	
	#invpasspercentage=[90.92.94.95.97]	
-	- kvpasspercentage=[89,91,93,95,98]	1 4
2.5	- kvpasspercentage=[89,91,93,95,98] #plt plot(year, jnvpasspercentage)	1.
	a Complt.plot(year, kvpasspercentage) as knowledge what do was all the	
	alcomplt.plot(year, kvpasspercentage) is know ledge. What do we call the type of plt.xlabel('Year') are the ways by which we can avoid such type of	
	a plt.ylabel('Passpercentage')	
	plt.title('KV PASS% till2018')	-
1	plt.legend() Side in a start of a start the stress.	
	(1) We at it the default durid 1) pri OR and 12	
	Complete the following code to plot bar graphs	
3	Lipsc import matplotlib:pyplot as plt waste satisfy the ways	
	import numpy as np	
	abel = ['Anil' Vikas' Dharma' Mahen' Monight ID airest I	
3	$c_{pr} = [94,85,45,25,50,54]$	
	index = nn arange(len(label))	
	numerial and the prior as the (statement 1)	
	plt:xlabel('Student-Name', fontsize=5)	
	(statement?) (statement?)	
	plt.xticks(index, label, fontsize=7, rotation=50)	
	plt.title('Percentage of Marks achieve by student Class XII')	
ļ	in plot year, k patient contains admetter by stadent Class XII')	
	ptiviance (Pastice periodice)	
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11.	ation Vehicle	s is given b	elow :	2				
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S90				000	15			
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			15000	000	26			
		Marut		000	18			
	409 Mini y	an Mahin	dra 35000	00	15			
Wri	te SQLcomma	nda ta						
a. D	Display the tota	l price of	omiti -					
b. C	Count the type	of vehicles	aruti company	y. hu aa	1			
c. D	Display detail o	of all the typ	es of vehicles	in asc	ending or	ny. der of		
c	ompany.	JF		111 450	chung of			
	n the car active bearing							
Wr	ite a python co	de te	SECTION II	<u>I</u> , ' ,				5
Write a python code to (A) create a dataframe df from csy file named 'student.csy'								
naine. A	(B) displ	ay the detail	of students ha	ving n	narks mo	re than 9	0.	
aa kii	assuming n	narks as colu	mn name. dataframe co				.,	
= -	(C) Disp	lay complete	dataframe co	lumnw	ise.	1		
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	Palmer Cowart French Stern Freed Int.,1	DBMS OS FND Prog NET Prog	PustakM BPB Galgotia John W Zpress BPB	7		270.00 130.00 225.00 75.00 1000.00		
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a b c	Palmer Cowart French Stern Freed int 1 Norton Schildt	DBMS OS FND Prog NET Prog	PustakM BPB Galgotia John W Zpress BPB	7 4 3 3 1	4 14 1 	270.00 130.00 225.00 75.00 1000.00 200.00 40.00		
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	11	(c) Display the name of multiplication	
	111	1 0 10 the Lee	
	111	(c) Display the new of the	
	1	(c) Display the name of publisher and quantity multiplied by price. (d) Display detail of author whose name start with 'F'	
	11	(d) Display detail of author whose name start with 'F'.	
	111	(e) Display total quantity of books of each subject.	
	0	R	
		- open fulle of books after rounding it off to	
		deemar place.	
		(B) Display the current date and time.	
		(C) Display the publisher name after removing all the spaces.	
		(D) Display the first four characters of publisher name	
		(E)Display the length of string("good morning");	
40	T	(E)Display the length of string (good morning");	
40	ſ	KVS has started a new school in city and in school it has four places to	5
		connect LAB1, LAB2, EXAMINATION, PRINCIPAL OFFICE.	
		The distance between them IN meters is:	
		LAB1 TO LAB2 100	
		Lab2 to principal 120	
		Examination to 120	
		principal	
		Lab1 to examination 80	
		Lab1 to principal 110	
		Lab2 to examination 90 with a start of the	
		Lab2 to principal 105 porter completely 20%	
		Kappen and the second second to the second	
		No of Computers in each	
		Lab1	
		$Lab2 \qquad \qquad$	
		Principal (House the life and provide the second se	
		Examination 10	-
	·, .)	RVS has slarted a new school in city and in school it late is a proper to	3
	1.0	contract LABL LABLEX AMINATION PRINCIPAL TOB.	
		RVS has started a new school in city and arsondor it has be equally started a new school in city and arsondor it has be equally a subscription of a subscrip	
		labstand offices.	
		ia. Suggest the placement of Hub/Switch/Repeater in the network.	
		Example of a 120	
		ijking Mention the fast way to provide internet accessibility to all wings.	
		iv. In which wing server will be installed.	
		V." Which device is required to connect computer with internet cable,	
		d without which internet access is not possible but network works.	
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