

KENDRIYA VIDYALAYA ELURU, HYDERABAD REGION
PRE-BOARD EXAMINATION (2020-21)
COMPUTER SCIENCE – (083)
CLASS- XII

MAX. MARKS: 70

TIME : 3 hrs

General Instructions:

- All questions are compulsory.
- Question paper is divided into 4 sections A, B, C and D.
 1. Section A : Unit-1
 2. Section B : Unit-2
 3. Section C : Unit-3
 4. Section D : Unit-4

SECTION A			
Q.1	(a)	Which of the following is valid assignment operator in Python: (i) // (ii) ? (iii) < (iv) * =	1
	(b)	Which of the following can be used as valid variable identifier(s) in Python? (i) Data (ii) _Total (iii) 4thSum (iv) Number#	1
	(c)	What is Y in this expression $Y = [1, "a", 10.25, X]$	1
	(d)	Rewrite the following code in python after removing all syntax error(s). Underline each correction done in the code. l= int ("Enter value of x:") for in range [0,5]: if x=y print y else print y**2	2
	(e)	Find and write the output of the following python code: def funct(text): L=len(text) ntext="" for i in range (0, L): if text[i]. isupper(): ntext=ntext+text[i]. lower() elif text[i].isalpha(): ntext=ntext+text[i].upper() else:	2

		<pre> ntext=ntext+'abc' print(ntext) func("Gmail@com") </pre>	
	(f)	Find and write the output of the following python code: <pre> def Check(n1=1, n2=2): n1=n1+n2 n2+=1 print(n1, n2) Check() Check(2,1) Check(3) </pre>	3
	(g)	What are the advantages of Functions in a program?	2
Q2.	(a)	What will be the output of the following Python code snippet? <pre> d1 = {"john":40, "peter":45} d2 = {"john":466, "peter":45} print(d1 == d2) </pre> i) True ii) False iii) None iv) Error	1
	(b)	Which is the correct form of declaration of list? (i) L1=['a',[1,2,3], 5, 'hello'] (ii) L1=('a',[1,2,3], 5, 'hello') (iii) L1={'a',[1,2,3], 5, 'hello'} (iv) L1=['a',[1,2,3], 5, hello]	1
	(c)	Identify the valid declaration of Day: Day={1:'january',2:'february',3:'march'} (i) list (ii) dictionary (iii) array (iv) tuple	1
	(d)	Find and write the output of the following python code: <pre> count =1 def fun(): global count for I in (1,2,3): count+=1 fun() print(count) </pre>	1
	(e)	Find and write the output of the following python code: <pre> a=1 while a<=3: print("Value of a=",a) a+=1 </pre>	1
	(f)	What do you understand by local and global variables in python?	2
	(g)	Find and write the output of the following python code: <pre> a=10 </pre>	2

		<pre>def call(): global a a=15 b=20 print(a) call()</pre>	
	(h)	Write a function in python to read lines from a text file DATA.TXT and display those lines which start with the alphabet 'H'. OR Write a function count_this() in python to read the text file DATA.TXT and count the number of times "this" occurs in the file.	2
	(i)	Differentiate between mutable and immutable objects in Python language with example. OR Write a python program to read student.csv file content.	3
	(j)	Write a Program to read a record from the binary file "student.dat. Student.dat file contain following entry: <pre>roll_no name marks</pre> OR What is a CSV file? And What are the advantages of CSV file formats?	4
		SECTION-B	
Q.3		Questions 3 (a) to 3 (d): Fill in the blanks	
	(a)	Through you can establish contact with anyone in the world.	1
	(b)	The main function of is to divide the message or data into packets of a definite size on the source computer.	1
	(c)	 is a software that enables us to access the internet and explore websites.	1
	(d)	To connect computers located in a specific building or campus is known as	1

	(e)	(a) A computer network: (i) Is a collection of hardware components and computers (ii) Is interconnected by communication channels (iii) Allows sharing of resources and information (iv) All of the above (b) MAN Stands for (i) Metropolitan Area Network (ii) Main Area Network (iii) Metropolitan Access Network (iv) Metro Access Network	2												
	(f)	What do you understand by Transmission Medium? Give its types with examples.	2												
	(g)	What is network? Give the advantages of networks?	3												
	(h)	Techno corporation is a consultancy company. It is planning to set up its new centre at Jaipur for its office and web-based activities. It has 3 blocks of buildings named Block A, Block B, Block C. Shortest distances between various Blocks in meters: <table border="1"><tr><td>Block A to Block B</td><td>60 m</td></tr><tr><td>Block B to Block C</td><td>50 m</td></tr><tr><td>Block C to Block A</td><td>60 m</td></tr></table> Number of computers: <table border="1"><tr><td>Block A</td><td>125</td></tr><tr><td>Block B</td><td>30</td></tr><tr><td>Block C</td><td>50</td></tr></table> (i) Suggest the most suitable block to house the server of this company with a suitable reason. (ii) Which device will you suggest to be installed in each of these blocks to efficiently connect all the computers within these blocks. (iii) The company is planning to link its sales counters situated in various parts of same city. Which type of network out of LAN, MAN or WAN will be formed? (iv) Suggest the most suitable wired medium for efficiently connecting each computer installed in every block out of the following network cables: ● Coaxial Cable ● Ethernet Cable	Block A to Block B	60 m	Block B to Block C	50 m	Block C to Block A	60 m	Block A	125	Block B	30	Block C	50	4
Block A to Block B	60 m														
Block B to Block C	50 m														
Block C to Block A	60 m														
Block A	125														
Block B	30														
Block C	50														
SECTION-C															
Q.4	(a)	Which clause is used to sort the records of a table in ascending or descending order?	1												
	(b)	Which command is used to modify the data in a table or to make changes for some or all of the values in the existing records in a table?	1												
	(c)	Which clause is used to remove the duplicating rows of the table?	1												

	(d)	Which clause is used in combination with GROUP BY clause?	1																																																
	(e)	What are the aggregate functions in SQL?	2																																																
	(f)	(a) The allows us to perform tasks related to data definition. (i) DDL (ii) DML (iii) TCL (iv) None of the above (b) A is a text that is not executed. (i) Statement (ii) Query (iii) Comment (iv) Clause	2																																																
	(g)	Write an output for SQL queries (i) to (iii), which are based on the table SHOP : Table: SHOP <table border="1"><thead><tr><th>Code</th><th>Item</th><th>Company</th><th>Qty</th><th>City</th><th>Price</th></tr></thead><tbody><tr><td>101</td><td>Biscuit</td><td>Britannia</td><td>100</td><td>Delhi</td><td>15</td></tr><tr><td>102</td><td>Jam</td><td>Kissan</td><td>110</td><td>Kolkata</td><td>90</td></tr><tr><td>103</td><td>Coffee</td><td>Nestle</td><td>200</td><td>Kolkata</td><td>55</td></tr><tr><td>104</td><td>Sauce</td><td>Kissan</td><td>56</td><td>Mumbai</td><td>65</td></tr><tr><td>105</td><td>Cake</td><td>Britannia</td><td>72</td><td>Delhi</td><td>25</td></tr><tr><td>106</td><td>Maggi</td><td>Nestle</td><td>150</td><td>Mumbai</td><td>10</td></tr><tr><td>107</td><td>Chocolate</td><td>Cadbury</td><td>170</td><td>Delhi</td><td>35</td></tr></tbody></table> (i) SELECT COUNT(*), Company FROM SHOP GROUP BY Company HAVING COUNT(*)>1; (ii) SELECT MAX(Qty),MIN(Qty) FROM SHOP; (iii) SELECT Item, Qty as Quantity FROM SHOP WHERE City="Delhi";	Code	Item	Company	Qty	City	Price	101	Biscuit	Britannia	100	Delhi	15	102	Jam	Kissan	110	Kolkata	90	103	Coffee	Nestle	200	Kolkata	55	104	Sauce	Kissan	56	Mumbai	65	105	Cake	Britannia	72	Delhi	25	106	Maggi	Nestle	150	Mumbai	10	107	Chocolate	Cadbury	170	Delhi	35	3
Code	Item	Company	Qty	City	Price																																														
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107	Chocolate	Cadbury	170	Delhi	35																																														
	(h)	Write SQL queries for (i) to (iv), which are based on the table: SHOP, given in the question 4(g): (i) To display the records from table shop in alphabetical order as per the name of the Item. (ii) To display item, company, and City whose price is between 20 and 80. (iii) To display Item name, Company and quantity for the items who have price more than 50. (iv)To increase quantity of all items by 30 whose city is Mumbai.	4																																																
SECTION-D																																																			
O.5	(a)	What is SQL?	1																																																

	(b)	 is known as range operator in MySQL. (i) IN (ii) DISTINCT (iii) IS (iv) BETWEEN	1
	(c)	Define the following terms: Field, Record, Table.	2
	(d)	What are DDL and DML statements?	2
	(e)	(a) Which of the following modes is used for both writing and reading from a binary file? (i) wb+ (ii) w (iii) wb (iv) w+ (b) Which statement is used to retrieve the current position within the file? (i) fp.seek() (ii) fp.tell() (iii) fp.loc (iv) fp.pos	2
	(f)	What is the output of the following code fragment? Explain. <pre>fout = file("output.txt", 'w') fout.write("Hello, world!\n") fout.write("How are you?") fout.close() file("output.txt").read()</pre>	2