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MONTH SEPT. 2019 CLASS: XII SUBJECT: CS MM: 30



- Q.1 Explain the various factors in detail which affects the performance of program algorithm. [4]
- Q.2 Determine the complexity of a program that searches for an element in an array / list. [3]
- Q.3 what is difference between “text file” and “binary file”. [1]
- Q.4 Write a program to perform insert and delete operations on a Queue containing member’s details as given in the following definition of member_node. [4]

MemberNo	Integer
MemberName	String
Age	Integer

Q. 5 Convert the following infix expression into postfix expression by using stack application. Show the status of both stack and output for each input. [2]

- (a) $((A-B)*(D/E))/(F*G*H)$ OR (b) NOT (A OR B) AND C

Q.6 Evaluate the following postfix notation of expression by using stack application.

- (a) True, False, NOT, AND, True, True, AND, OR [2]
- OR
- (b) $AB - CD + E * +$ (Where A=5, B=3, C=5, D=4 and E=2)

Q.7 Explain the following functions in reference to list in python with example of python codes.

- (a) append () (b) insert () (c) remove () (d) pop () [4]

Q.8 Write the purpose of following statements. [2]

- (a) matplotlib.pyplot.plot()
(b) matplotlib.pyplot.pie()
(c) matplotlib.pyplot.bar()
(d) matplotlib.pyplot.barh()

Q.9 Observe the given below table.

[4]

	EMPID	Gender	Age	Sales	BMI	Income
0	E001	M	34	123	Normal	350
1	E002	F	40	114	Overweight	450
2	E003	F	37	135	Obesity	169
3	E004	M	30	139	Underweight	189
4	E005	F	44	117	Underweight	183
5	E006	M	36	121	Normal	80
6	E007	M	32	133	Obesity	166
7	E008	F	26	140	Normal	120
8	E009	M	32	133	Normal	75
9	E010	M	36	133	Underweight	40

(i) Write code to draw the bar chart with title= "Employee Health Report" , labels of x-axis ="Age of Employee" and y-axis = "Sales".

(ii) Write code to draw the multi bar chart for (age, sales and Income) with title= "Employee Health Report" , and also use appropriate legends for charts.

Q.10 What is data visualization? How data visualization can be support by python?

[2]

Q.11 Write code to draw pie chart for following State and population of various states given in below table.

[2]

State	Rajasthan	Punjab	Haryana	Uttrakhand	Maharastra	Bihar
Population	52354	21354	32142	31254	41253	43215



~ ~ ~ Good Luck ~ ~ ~