SASTRA ENGINEERING · MANAGEMENT · LAW · SCIENCES · HUMANITIES · EDUCATION DEEMED TO BE UNIVERSITY (U/S 3 OF THE UGC ACT, 1956) THINK MERIT | THINK TRANSPARENCY | THINK SASTRA	**School of Computing** **First CIA Test – December 2021** Course Code: **CSE101** Course Name: **Problem Solving and Programming in C** Year & Programme : I Year - I Sem **(Semi Lab)** Duration: 45 minutes Max Marks: 25

1. Draw a flowchart for the given scenario and write a source code in c language to display the output. Ask the user to enter the number of sides to be entered and find the perimeter for the corresponding shape with the assumption as below. **(15 marks)**

Assume corresponding shape for the given user input
1- Square, 2- Rectangle, 3 – Triangle and 4 – Polygon

Sample input
Enter the number of sides: 3
Enter 3 values: 2.35 4.5 6.2
(Perimeter = 13.05 (2.35+4.5+6.2))
Sample output

S.No	Number of inputs	Shape	Circumference
1	1	Square	xxxx.xx
2	2	Rectangle	xxxx.xx
3	3	Triangle	xxxx.xx
4	4	Polygon	xxxx.xx

2. Write a loop that will calculate and print the sum of an integer which is divisible by 2 and 6, beginning with i=2 (i.e. calculate the sum 6 + 12 + 18 + 24 + ...) for all values of that are less than 100. Write the loop in 3 different ways.
(a) Using a *while* statement.
(b) Using a *do - while* statement.
(c) Using a *for* statement. **(10 marks)**

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