COA Lab Mid Term

Fall 2020

Total Marks: 15 Time :45 mins

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**Question: Convert a C++ program of printing diamond shape to assembly language using MIPS architecture.**

#include <bits/stdc++.h>

using namespace std;

void printDiamond(int n)

{

    int space = n - 1;

    for (int i = 0; i < n; i++)

    {

        for (int j = 0;j < space; j++)

            cout << " ";

        // Print i+1 stars

        for (int j = 0; j <= i; j++)

            cout << "\* ";

        cout << endl;

        space--;

    }

    space = 0;

    for (int i = n; i > 0; i--)

    {

        for (int j = 0; j < space; j++)

            cout << " ";

        // Print i stars

        for (int j = 0;j < i;j++)

            cout << "\* ";

        cout << endl;

        space++;

    }

}

int main()

{

    printDiamond(5);

    return 0;

}