

**Question 1: [12 Marks]**

In each of the following, indicate whether the operations result in **inaccessible memory**, a **dangling pointer**, **both**, or **neither**. Justify your answer(s).

<pre>float * pPi = new float; float * pPi2 = new float; *pPi = 3.1415; pPi2 = pPi;</pre>	<pre>char * n = "Ali"; char * m = new char[20]; strcpy(m,n); char * temp = n; n = m; m= temp; delete [] m; m = nullptr;</pre>
<pre>int * n = new int[10]; *n = 0; for (int i = 0; i&lt;10; i++) {     *(n+i) = *(n); } delete n; n = nullptr;</pre>	<pre>void alloc(int *a, int size) {     a = new int [size]; } int main(){     int * arr;     alloc(arr,10);     arr[0] = 10;     delete []arr;     arr = nullptr; }</pre>
<pre>int * cube (int * a) {     int s = *a**a**a;     return &amp;s; } int main(){     int i =10;     int j = *cube (&amp;i);     cout &lt;&lt; j &lt;&lt;endl; }</pre>	<pre>int meaning = 42; int *life = &amp;meaning; int **universe = &amp;life; int ***everything = &amp;universe; cout &lt;&lt; ***everything &lt;&lt;endl; delete life; life = nullptr; universe = nullptr; everything = nullptr;</pre>

