

**Military Institute of Science of Technology (MIST)**  
**Department of Computer Science & Engineering (CSE)**  
**Mirpur Cantonment, Dhaka 1216**  
**Code: CSE-291      CT No. 03**

Total Marks: 30

Time: 40 min

1. Look at the code snippet and memory segment carefully.

1	#include<stdio.h>	1000	117	
2	int main()	1004	10	a
3	{	1008	50	
4	int a=10, *p;	1012	1004	p
5	p = &a;	1016	504	
6	(*p)++;	1020	98	
7	p++;	1024	71	
8	return 0;	1028	129	
9	}			

The memory segment shows variables value after execution of code line-5. What will be the value of following literals after execution of code line-7? 10

Literal	Value
a	
&a	
p	
&p	
*p	

2. Write down the output of the following code. 06

<pre> 10  #include &lt;stdio.h&gt; 11  void printArray(int * p) 12  { 13      int i; 14      for (i = 1; i &lt;= 3; i++) 15      { 16          printf("%d ",*p); 17          p = p - 1; 18      } 19  } 20  int main() 21  { 22      int array[] = {10, 20, 30, 40, 50}; 23      printArray(&amp;array[2]); 24  }</pre>
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3. Why is null character used at the end of a String in C? What might be the problem if we give the length of the string while in place initialization? Ex. 08
- char str[10] = "Biomedical";
4. Explain why a char \* variable and int \* variable will hold the same size although a char is usually 1 byte and an int is 4 byte in size. 06