

Question 7 Answer:

**Set A**

Let's consider the following code:

```
var WORD 3 DUP(5), 0, ?, '?', 4 DUP( 2 DUP(3) )
```

- (a) list all the items in the array. ( 5 points)
- (b) What is the total size of the array (in Bytes)?

Answer:

- (a) The list will be:  
5, 5, 5, 0, uninitialized-value, ? , 3, 3, 3, 3, 3, 3, 3, 3
- (b) There are 14 items in the array  
Each item is 2-byte long.  
Total size =  $14 * 2 = 28$  Bytes

**Set B**

Let's consider the following code:

```
var WORD (3 DUP (2 DUP('ab'))), ?, ?, 5
```

- (a) list all the items in the array. ( 5 points)
- (b) What is the total size of the array (in Bytes)?

Answer:

- (a) The list is:  
'ab', 'ab', 'ab', 'ab', 'ab', 'ab', uninitialized-value, uninitialized value, 5
- (b) The size of the array:  
We have 6 pair of characters -'ab'  
Total number of items =  $6+3 = 9$   
Each item is 2-byte long.  
Total size =  $9*2 = 18$  bytes