

### Outputs for questions 4,6,7,8

4. Write an equivalent pointer expression for fetching the value of array element  $a[i][j][k][2]$

ANS:  $*(*(*(a + i) + j) + k) + 2)$

6. Find the output of the following // Consider the compiler is 32-bit machine

```
#include <stdio.h>
typedef struct
{
    int A;
    char B;
    char C;
} InfoData;
int main(int argc, char *argv[])
{
    //Calculate size of structure
    printf("\n Size of Structure = %d\n", sizeof(InfoData));
    return 0;
}
```

ANS: Size of Structure = 8

7. Find the output of the following // Consider the compiler is 32-bit machine

```
#include <stdio.h>
typedef struct
{
    char A;
    double B;
    char C;
} InfoData;
int main(int argc, char *argv[])
{
    //Calculate size of structure
    printf("\n Size of Structure = %d\n", sizeof(InfoData));
    return 0;
}
```

ANS: Size of Structure = 24

8. Find the output of the following // Consider the compiler is 32-bit machine

```
#include <stdio.h>
#include <stdint.h>
int main()
{
    unsigned int var = 0x12345678;
    unsigned int rev = 0;
    for (int i = 0; i < 8; i++)
    {
        rev = (rev << 4) | ((var >> (4 * i)) & 0xF);
    }
    printf("%X", rev);
    return 0;
}
```

ANS: 87654321