1. a) Access Function: Address (A, [J, K]) = (A) + z[M(K-1) + (J-1)]

where A as a base address, z is the number of bytes, M is rows of the array, J is the row number, K is a column number.

b) Address (A (10,5)) = 1050 + 8 (10(5-1) + (10-1))

=1050+ 392= 1442

1. a) Access function --> address + (size of integer) \*(6 (j-1) + 48 (j-1) + (k-1)

= 1300 + 32(6(j-1) + 48(j-1) + (k-1)

b) address of a [2][2][3] -->

1300 + 32 (6(2-1) + 48(2-1) + 32(3-1))

=1300+32(56)

=3092

1. a) Line 1: a (declared in main), b (declared in main), c (global), d (declared in main)

b) Line 2: d (declared in f1()), e (declared in f1()), b (global), c (global)

c) Line 3: a (declared in if block in f1()), b (declared in if block in f1()), d (declared in f1()), e (declared in f1()), c (global)

d) Line 4: a (declared in f2()), b (declared in if block in f2()), c (declared in if block in f2())

e) Line 5: d (declared in f1()), a (declared in f2()), e (declared in f1()), c (declared in f2())

1. Method scope- The scope of the variables is bound to the method only.

Class scope- The scope of the variables is bound to the class only and every method within it.

Block scope – the scope of the variables is bound to the block of code ex if statements, for loops, etc.

1. a) Compile time

b) Load time

c)Language implementation time

d) Language design time.