Level 1(MCQS)

Q.1 LOOP_CMPL

Time Complexity – O(N+M)

Space Complexity – O(1)

Q.2 NESTED_CMPL

Time Complexity – O(N*N)

Space Complexity – O(1)

Q.3 NESTED_CMPL2

Time Complexity – O(N*N)

Space Complexity – O(1)

Q.4 CHOOSE4

X will be a better choice for larger inputs.

Q.5 WHILE_CMPL

Time Complexity – O(log(n))

Space Complexity – O(1)

Q.6 NESTED_CMPL3

Time Complexity – O(N)

Space Complexity – O(1)

Q.7 LOOP_CMPL2

Time Complexity – **theta(N*log(N))**

Space Complexity – **O(1)**

Q.8 GCD_CMPL

Time Complexity – **theta(log(N))**

Space Complexity – **O(1)**

Q.9 CHOOSE3

C will complete execution first

Q.10 CHOOSE1

N^3/sqrt(N) is not bounded by O(N^2).

Q.11 CHOOSE2

Increasing order of complexities is f3, f2, f4, f1.

Q.12 REC_CMPL1

Time Complexity – **O(N)**

Space Complexity – **O(1)**

Q.13 REC_CMPL2

Time Complexity – **O(2^(R+C))**

Space Complexity – **O(1)**

Q.14 REC_CMPL3

Time Complexity – O(R*C)

Space Complexity – O(1)

Q.15 AMORTIZED1

Time Complexity – O(N)

Space Complexity – O(1)