Question 1:

A) If (grade >= 90) {
   System.out.print(“Great job!”);
   }
B) If (number < 20 || number > 50) {
   System.out.print(“Error”);
   }
C) If (y < 100) {
   Y += 2;
   }

Question 2:

A) If (num1 > num2) {
   System.out.print(“First number is larger.”);
   } else if (num1 < num2) {
   System.out.print(“Second number is larger.”);
   } else if (num1 == num2) {
   System.out.print(“Numbers are equal.”);
   }

Question 3:

A) Even, odd
B) num = number % 2
   Switch (num) {
      case 0:
         System.out.print(“Even number.”);
         break;
      default:
         System.out.print(“Odd number.”);
   }

Question 4:

A) number = rand.nextInt(50 - 1) + 1;
B) number = rand.nextInt(100 - 20) + 20;
C) secret_number = rand.nextDouble(20 - 10 + 1) + 10;

Question 5:

A) The program does not designate 18 as an adult, or anything. The statement (age > 18) includes ages above 18 but is exclusive to 18. This same issue applies to the senior condition, not including age 65 as a valid age for a senior. It could also be said that the user could enter a negative value and the code would designate it as a child, it would be appropriate if this was remedied by adding (age >= 0) to the first if statement, as well as

adding an additional if else statement (age < 0) that display a message like: “Invalid age”.

Question 6:

A) False
B) False
C) True
D) True
E) True
F) True
G) True

Question 8:

A) True
B) False
C) False
D) True
E) False
F) True
G) True
H) False
I) True
J) False