Answer all the questions. Each question carries 1 mark.

1) State true or false: While doing equivalence partitioning, there can be more than one ways of 1 point partitioning the input domain.

- True
- False

Accepted Answers:
True

2) State true or false: The partitions of the input domain for equivalence partitioning should consider both valid and invalid inputs.

- True
- False

Accepted Answers:
True

3) A . . . . . . . . is used for verification of the combinations of the conditions in a decision table.

Accepted Answers:
(Type: String) Checksum

4) A valid partition of an input domain must satisfy which of the properties?

- Partitions should be complete.
- Partitions should be disjoint.
- Partitions should be complete and disjoint.
- Partitions should be complete or disjoint but not both.

Accepted Answers:
5) There are $n$ partitions of an input domain and for each partition, $B_i$ is the number of blocks. Which of the following calculates the total number of tests needed for All Combinations Coverage Criteria (ACoC)?

- $\prod_{i=1}^{n} B_i$
- $\sum_{i=1}^{n} B_i$
- $B_1 + B_n$
- $B_1 \cdot B_n$

**Accepted Answers:**

$\prod_{i=1}^{n} B_i$

6) State true or false: PWC does not allow one test case to cover more than one unique pair of values.  

- True
- False

**Accepted Answers:**

False

7) Which of the following is a correct order of subsumption amongst the various coverage criteria for input space partitioning? The symbol $\rightarrow$ below indicates subsumption.

- $\text{ACoC} \rightarrow \text{PWC} \rightarrow \text{BCC}$
- $\text{BCC} \rightarrow \text{PWC} \rightarrow \text{ECC}$
- $\text{MBCC} \rightarrow \text{TWC} \rightarrow \text{BCC}$
- $\text{ACoC} \rightarrow \text{PWC} \rightarrow \text{ECC}$

**Accepted Answers:**

$\text{ACoC} \rightarrow \text{PWC} \rightarrow \text{ECC}$

For the next three questions, consider a sorting program. The input to our sorting program will be a variable length array of numbers. The output will have a permutation of the input array, sorted in ascending order. Consider the following characteristics for partitioning the input domain: length of array, maximum value and minimum value.

8) Answer yes or no: Are the characteristics maximum and minimum values feasible if the length of array is zero?  

- Yes
- No

**Accepted Answers:**

No

9) State true or false: The characteristics maximum value and minimum value be considered without any additional constraints?  

- True
- False

**Accepted Answers:**

False
Which of the following is a valid partitioning based on the characteristic length of the array? \(1\) point

MAXLENGTH is the maximum possible length of an array in a given computer.

- \([0, 1], [100, MAXLENGTH]\).
- \([1, MAXLENGTH]\).
- \([0, 1], [1, 100], [101, MAXLENGTH]\).
- \([0, MAXLENGTH]\).

Accepted Answers:

\([0, 1], [1, 100], [101, MAXLENGTH]\).