Assignment-8

The due date for submitting this assignment has passed. As per our records you have not submitted this assignment.

Due on 2018-09-26, 23:59 IST.

1) Murphy’s Law states that _______
- If anything can go wrong, it will
- If nothing goes wrong, it will
- If anything can go wrong, it will not
- If nothing goes wrong, it will not

No, the answer is incorrect.
Score: 0

Accepted Answers:
- If anything can go wrong, it will

2) Figure below illustrates the process of Embedded Systems Design and Test flow. What is the block marked “1” in the figure?

No, the answer is incorrect.
Score: 0

Accepted Answers:
- Test Response storage
4) Figure below illustrates a process of ____ circuit testing.

- Digital
- Analog
- Both of the above
- None of the above

No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
Design for testability

5) For an n-input circuit, ____ test patterns are needed for functional testing.

- n
- 2n
- n^2
- 2^n

No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
2^n

6) A circuit with n nets can have ____ possible stuck-at faults under single stuck-at fault model.

- 2^n
- n^2
- infinite
- 2n

No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
2^n

7) How many test patterns are needed to test the circuit given in the figure below? Assume that structural testing with single stuck at fault model is used.

- Data flow-based testing
- None

No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
Design for testability
8) Functional and structural testing of the 32-Bit adder circuit shown below needs ____ and ____ test patterns, 1 point respectively.

- $2^{65}$, $2^{3}$
- $2 	imes 65$, $2^{3}$
- $2^{65}$, $2 	imes 3$
- $65$, $3$

No, the answer is incorrect.
Score: 0
Accepted Answers:
$192$

9) How many stuck-at faults are possible in the AND-gate shown below?

- $2^{65}$, $2^{3}$
- $2 	imes 65$, $2^{3}$
- $2^{65}$, $2 	imes 3$
- $65$, $3$

No, the answer is incorrect.
Score: 0
Accepted Answers:
$2^{65}$, $2^{3}$
10) A net having fan-out to k gates will have ___ stuck at fault locations

- k+1
- k-1
- 2k
- None

No, the answer is incorrect.
Score: 0
Accepted Answers:
- k+1

11) Which of the following statement is generally valid for a circuit?

- All faults are “easy to test”
- All faults are “difficult to test”
- Few faults are “easy to test” and most others are “difficult to test”
- Most faults are “easy to test” and few are “difficult to test”

No, the answer is incorrect.
Score: 0
Accepted Answers:
- Most faults are “easy to test” and few are “difficult to test”

12) The test patterns for “easy to test faults” are derived by ____

- Fault simulation algorithms
- Sensitization–propagation –justification approach
- Boolean Difference approach
- All the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
- Fault simulation algorithms

13) The test patterns for “difficult to test faults” are derived by ____

- Fault simulation algorithms
- Sensitization–propagation –justification approach
- both (a) and (b)
- other than the above
14. Let us consider a 2-input AND gates shown in figure below where the inputs are marked using notations from Roth's 5-valued algebra. What is the output notation at the marked net i.e., output of gate G1?

- 0
- 1
- D
- X

No, the answer is incorrect.
Score: 0
Accepted Answers:
Sensitization-propagation-justification approach

15. Consider figure of Question 14. What is the output notation at the marked net i.e., output of gate G2?

- 0
- D̅
- D
- X

No, the answer is incorrect.
Score: 0
Accepted Answers:
D

16. Consider figure of Question 14. What is the output notation at the marked net i.e., output of gate G3?

- 0
- D
- 1
- X

No, the answer is incorrect.
Score: 0
Accepted Answers:
X

17. If one wants to take the path “e-f-g-h” in the figure below for propagating the fault effect to the output h. The signals labelled as 1, 2, 3 in the nets of the path are assigned in terms of Roth’s 5 valued algebra. The signal value of the net labelled with 1 is _____.
No, the answer is incorrect.
Score: 0
Accepted Answers: D