Home / My courses / w2021ec3057d / Exams / Test 1 Started on Friday, 28 January 2022, 4:30 PM **State** Finished Completed on Friday, 28 January 2022, 5:15 PM Time taken 44 mins 50 secs **Grade 17.00** out of 20.00 (85%) Question 1 Incorrect Mark 0.00 out of 1.00 The value of o1 and o2 after simulation of following lines is wire [3:0] o1,o2; assign o1=(a==b)?1:0; assign o2=(a===b)?1:0; assume initial values of a=4'b1z0z;b=4'b1z0z; 4'bzzzz,4'bzzzz 4'b0000,4'b0000 4'bxxxx,4'bxxxx 4'b0001,4'b0001 The correct answer is: 4'b0001,4'b0001

Question 2

Correct

Mark 1.00 out of 1.00

Find the final value of 'r' considering the code below:

integer p, q, r;
initial
begin
p = 55; q = 20; r = 3;
p = 55; q = 75;
p = p + q;
end

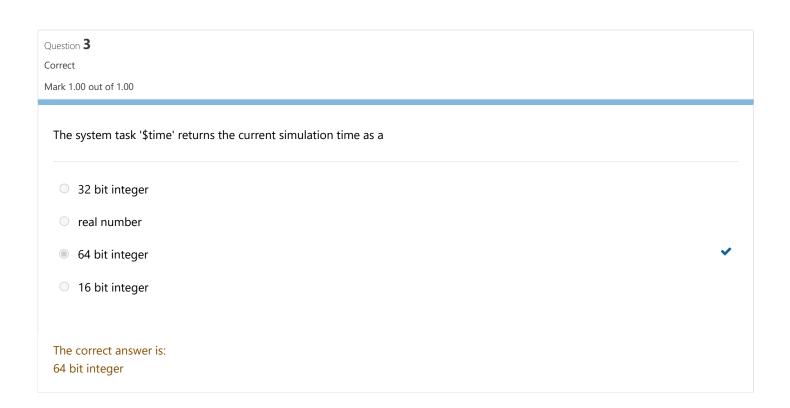
35

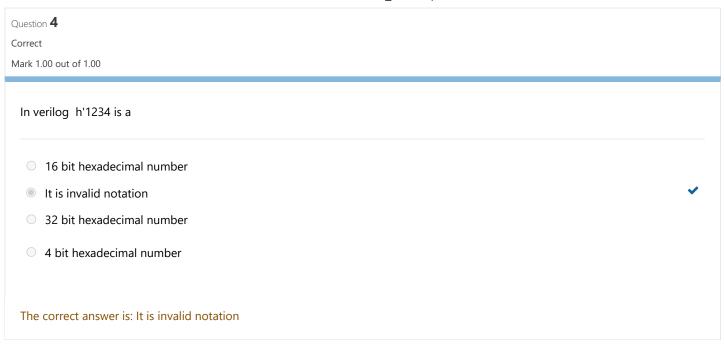
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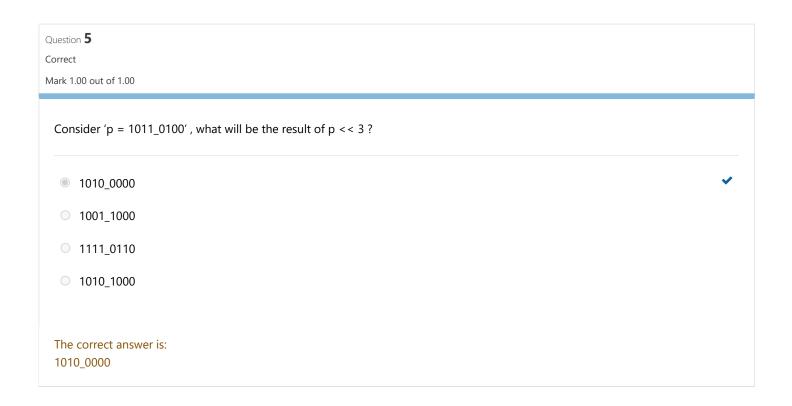
90

95

The correct answer is:
95







Question 6 Correct
Mark 1.00 out of 1.00
When does the \$monitor statement in a Verilog test bench displays the specified values?
at the beginning of the simulation
at the end of the simulation
 when the \$monitor statement is first encountered
whenever the value of any of the specified variables change
The correct answer is: whenever the value of any of the specified variables change

Question 7 Incorrect
Mark 0.00 out of 1.00
What does the construct "#12" indicate in simulation?
Give a delay of 12 before executing the next statement.
Pause execution of the statements that follow after time 12. ** ** ** ** ** ** ** ** **
O Unit of delay is 12.
Execute the next statement at time 12.
The correct answer is: Give a delay of 12 before executing the next statement.

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Question 8

Correct

Mark 1.00 out of 1.00

For the following code, what value is assigned to variable 'r'?

wire[2:0] p = 3b'01;

wire[2:0] q = 3b'101;

wire[4:0] r;

assign r = { 1'b1,2{p} };

11110

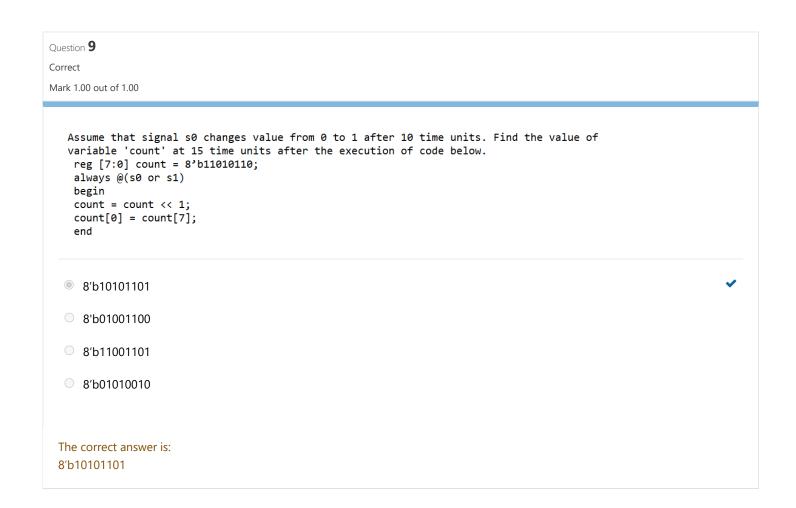
01010

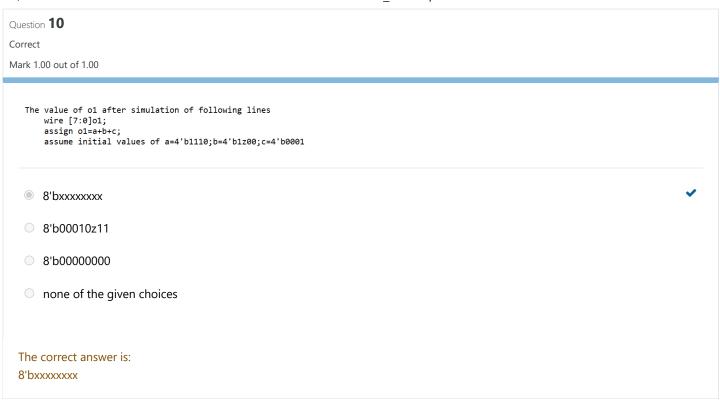
00001

10101

The correct answer is:

10101
```







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Question 12

Correct

Mark 1.00 out of 1.00

Find the values of a and b

wire [3:0] u = 4'bz001;

wire [3:0] v = 4'b1x1z;

wire [3:0] a = u & v;

wire [3:0] b = u | v;

1x11, x000

1x00, x111

x00x, 1x11

z00z, 1x11
```

Question 13 Not answered Marked out of 1.00
If $A = 3$ 'b11x and $B = 3$ 'b11x, What are the results of $A == B$ and $A == = B$?
1,00,0
○ 1,X
○ X,1
The correct answer is: X,1

Question 14 Correct Mark 1.00 out of 1.00 The value of o1 and o2 after simulation of following lines integer i=-76; wire [7:e]ol, o.2; assign o1=i>>3; 8'h16,8'hF6 8'h16,8'hF6 8'h16,8'hf16 none of the given choices The correct answer is: 8'hF6,8'hF6

```
Question 15

Correct

Mark 1.00 out of 1.00

What function do the following Verilog module implement?

module guess (f, a, b, c);
input a,b,c; output f,
vire tt, t2;
and #1 G1 (t1,a,b);
and #1 G2 (t2,b,c);
or #1 G3 (f,t1,t2);
endmodule

f = a.b',c' + a',b,c

f = a.b',c' + a',b,c

None of the given choices

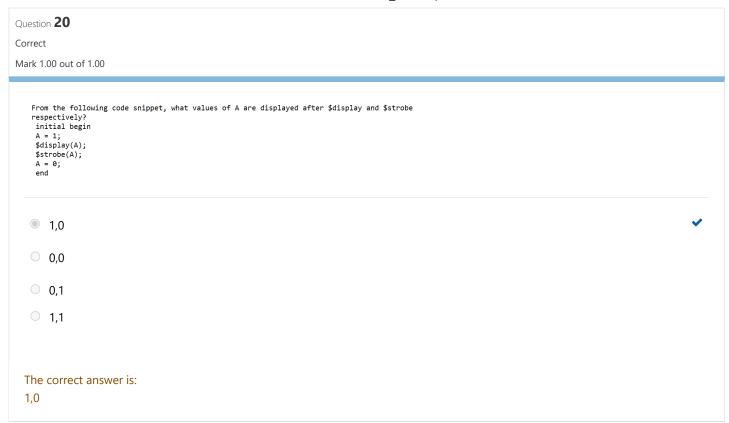
The correct answer is: f = a.b + b.c
```

Question 16 Correct Mark 1.00 out of 1.00
What does the declaration 'reg [13:0] mem[15:0]" indicate?
 an array of 14 words each containing 16 bits. an array of 16 elements each containing 14 bits. none of the given choices 2 dimensional array with 14 rows and 16 columns, where every element is 1 bit.
The correct answer is: an array of 16 elements each containing 14 bits.

Question 17 Correct Mark 1.00 out of 1.00	
Consider p = 4'b1011. What is the result of ^p?	
□ 1'b1	~
○ 1'b0	
○ 1'bx	
O 4'b1	
The correct answer is: 1'b1	

Question 18 Correct Mark 1.00 out of 1.00
If time scale is defined as `timescale 10ns/1ns and #15.55 a = b; then 'a' gets 'b' after
O 15.5ns
O 155.5ns
O 150ns
None of the given choices
The correct answer is: 156ns

Question 19 Correct Mark 1.00 out of 1.00
An AND gate with two inputs a and b has a delay of 3 units. Which among the following verilog statements describe its behaviour?
AND #3 a1(out,a,b);
#3 AND a1(out,a,b)
<pre>#3 assign out = a&b</pre>
AND a1 #3(out,a,b);
The correct answer is: AND #3 a1(out,a,b);



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