

## Unit 14 - Week 12

## Course outline

How does an NPTEL online course work?

Week 0

Week 1

Week 2

Week 3

Week 4

Week 5

Week 6

Week 7

Week 8

Week 9

Week 10

Week 11

Week 12

Circuit Prototyping Techniques

Single Purpose Computers

Single Purpose Computers - Continued

Recap of Course Coverage and Project Demonstration from Concept to Final

Feedback Form

Quiz : Assignment 12

Lecture PPT

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## Assignment 12

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

**Due on 2020-12-09, 23:59 IST.**

- 1) Why is it recommended to use single strand wires for breadboard prototyping? 1 point
- Because single strand wires occupy lesser area on the circuit board
- Because it is much cheaper than multi strands
- Because it is easy to insert in the breadboard
- Because it can be soldered easily

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*Because it is easy to insert in the breadboard*

- 2) Why are copper pads coated with tin? 1 point
- Tin does not oxidize as easily as copper and helps in soldering
- To avoid any kind of current leakage
- Tin is a better conductor than copper
- None of these

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*Tin does not oxidize as easily as copper and helps in soldering*

- 3) Which of the following is the best method to increase etching rate? 1 point
- Increase the temperature of the container
- Shake the container vigorously
- Use Ferric Chloride of higher concentration
- All of the above

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*All of the above*

- 4) In which type of machine, the output depends on the current state as well as the input? 1 point
- Mealy Machine
- Moore Machine
- Finite State Machine
- None of these

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*Mealy Machine*

- 5) The total number of states in a counter having 4 flips flops cannot be 1 point
- 15
- 17
- 12
- 10

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*17*

- 6) Which of the following is part of the data path? 1 point
- Multiplexer
- Decoder
- Latch
- All the above

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*All the above*

- 7) Which of the following can be programmed using Verilog/VHDL? 1 point
- MSP430
- CPLD
- Intel Core i7
- Field Programmable Gate Array

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*CPLD  
Field Programmable Gate Array*

- 8) Which of the following is an essential component of a microcontroller ecosystem? 1 point
- Reset
- Clock
- Power Supply
- All the above

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*All the above*

- 9) Wireless Power Transfer in the Wirelessly Powered Art Installation Project is using 1 point
- Inductive coupling
- Capacitive Coupling
- Resistive Coupling
- Microwave

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*Inductive coupling*

- 10) How does a heat sink help in decreasing the heat dissipation of an IC? 1 point
- Heat sink is made up of materials which are cooler.
- Heat sink increases the surface area in contact with the air.
- Heat sinks have fans to supply cool air to the IC.
- None of the above

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*Heat sink increases the surface area in contact with the air.*