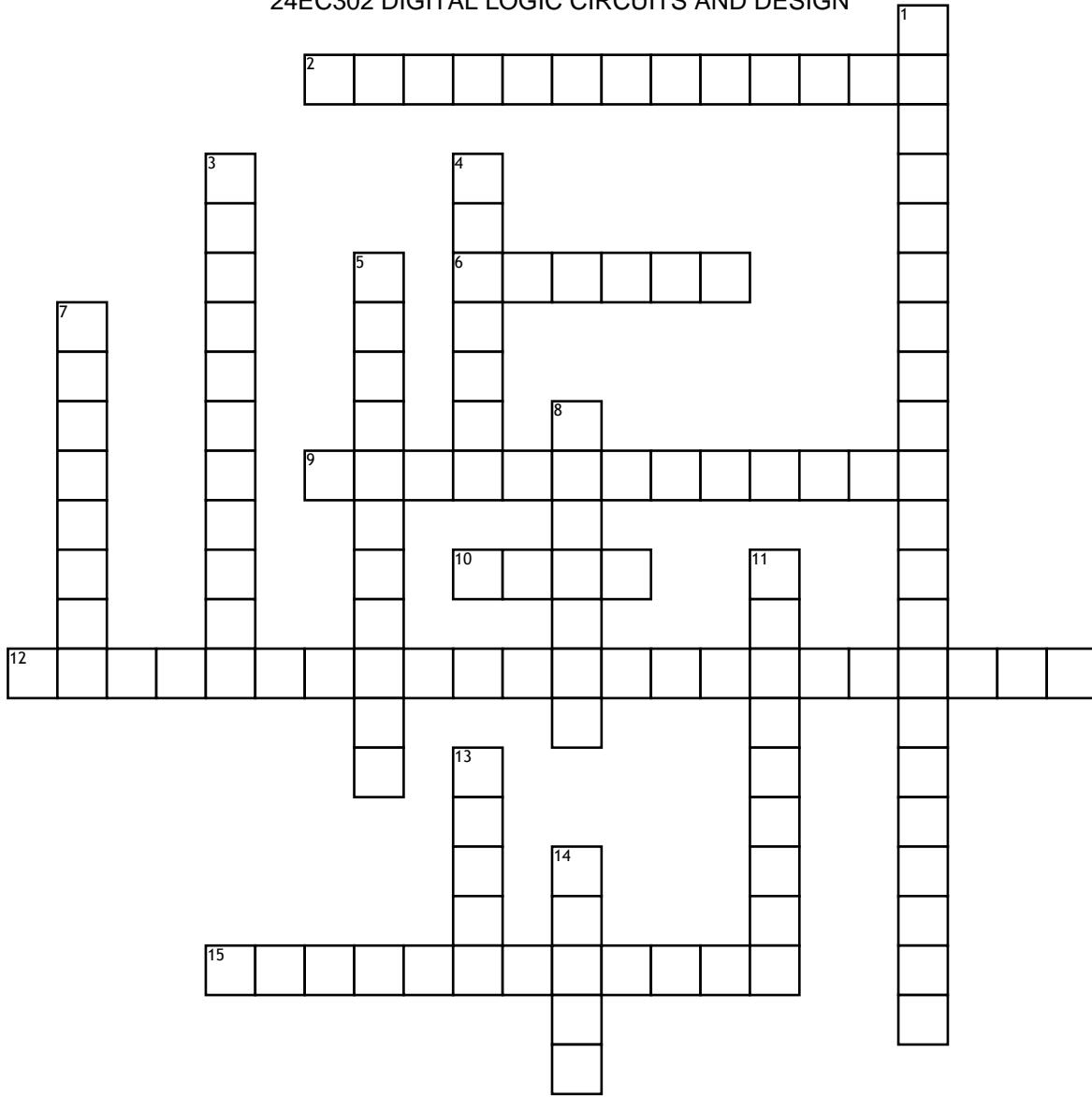


I YEAR II SEM ARTIFICIAL INTELLIGENCE AND DATA SCIENCE  
 INNOVATIVE TEACHING METHOD CROSSWORD PUZZLE  
 24EC302 DIGITAL LOGIC CIRCUITS AND DESIGN

**Across**

2. A sequential circuit where only the first flip-flop is clocked by an external clock.
6. Asynchronous counters are often called \_\_\_\_\_ counters.
9. the circuit can go into the wrong state depending on slight differences in the propagation delays of the gates which is known as \_\_\_\_\_.
10. A universal gate
12. A fixed architecture logic device with programmable AND gates followed by programmable OR gates.

15. A ripple counter is an \_\_\_\_\_ counter.

**Down**

1. It has programmable AND array and fixed OR array.
3. A sequence of equally spaced timing pulses may be easily generated by a(n) \_\_\_\_\_.
4. Output is high, when any one of the input is high
5. Helpful to simplify Boolean expressions with limited inputs
7. A group of flip flop which holds the binary information
8. A sequential circuit which is used to display the number of time any event is repeated or happening.
11. The sequential Circuits are designed using the combinational circuits along with a memory devices known as \_\_\_\_\_.
13. The \_\_\_\_\_ do not have clock input but flip flop has a clock input
14. Asynchronous sequential circuits do not use \_\_\_\_\_ signals as synchronous circuits do.