### **DAILY ASSESSMENT FORMAT**

Date:	29/05/2020	Name:	Kishan shetty
Course:	Logic Design	USN:	4AL17EC041
Topic:	Analysis of clocked sequential circuits.  Digital clock design	Semester & Section:	6th sem A sec
GitHub Repository	Kishanshetty-041		

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# **Analysis of clocked sequential circuits**

- The behavior of a clocked sequential circuit is determined from its inputs, outputs and state
  of the flip-flops (i.e., the output of the flip-flops). The analysis of a clocked sequential
  circuit consists of obtaining a table of a diagram of the time sequences of inputs, outputs and
  states.
- The clocked sequential circuits have flip-flops or gated latches for its memory elements.
   There is a periodic clock connected to the clock inputs of all the memory elements of the circuit to synchronize all the internal changes of state.

## Digital clock design

- In a digital clock, this is usually provided by using a crystal which is made out of glass. As an
  electric charge passes through the crystal, it will change shape slightly and make a very light
  sound. The sound which is heard at a regular frequency is then converted into an electronic
  signal.
- An analog watch might be much more accurate than a digital one if it uses a highprecision movement to measure passing time. Generally, the most expensive watches in the world are analog ones, though the world's most accurate atomic clocks show time with digital displays

Date: 29/05/2020 Name: Kishan shetty
Course: Python USN: 4AL17EC041
Topic: Object oriented Semester & Section: 6th sem A sec

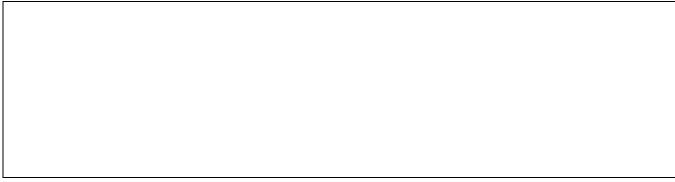
programming

#### **AFTERNOON SESSION DETAILS**

#### **Object Oriented Programming**

- One of the popular approaches to solve a programming problem is by creating objects. This is known as Object-Oriented Programming (OOP).
- The concept of OOP in Python focuses on creating reusable code. This concept is also known as DRY (Don't Repeat Yourself).
- In Python, the concept of OOP follows some basic principles:
  - Inheritance A process of using details from a new class without modifying existing class.
  - Encapsulation Hiding the private details of a class from other objects.
  - Polymorphism A concept of using common operation in different ways for different data input.
- Some terminologies in OOP:
  - Class A class is a blueprint for the object which contains all the details about the object.

- Object An object (instance) is an instantiation of a class. When class is defined, only the description for the object is defined. Therefore, no memory or storage is allocated.
- Methods Methods are functions defined inside the body of a class. They are used to define the behaviors of an object.
- Inheritance Inheritance is a way of creating new class using the details of existing class without modifying it and extra functions can also be added to the derived class.
- Data member A class variable or instance variable that holds data associated with a class and its objects.
- Function overloading The assignment of more than one behavior to a particular function. The operation performed varies by the types of objects or arguments involved.
- Instantiation The creation of an instance of a class.
- Operator overloading The assignment of more than one function to a particular operator.
- Class attributes are variables of a class that are shared between all of its instances. They differ from instance attributes in that instance attributes are owned by one specific instance of the class only, and are not shared between instances.
- Some of the built-in class attributes:
  - "\_\_init\_\_" is a reserved method in python classes. It is called as a constructor in objectoriented terminology. This method is called when an object is created from a class and it allows the class to initialize the attributes of the class.
  - The \_\_del\_\_() method is a known as a destructor method in Python. It is called when all references to the object have been deleted i.e. when an object is garbage collected.
  - Python objects have an attribute called \_\_doc\_\_ that provides a documentation of the object.
  - Class variables are defined within the class construction. Because they are owned by the class itself, class variables are shared by all instances of the class. They therefore will generally have the same value for every instance unless you are using the class variable to initialize a variable.
- Instance variables are owned by instances of the class. This means that for each object or instance of a class, the instance variables are different. Unlike class variables, instance variables are defined within methods.
- The main advantage of OOP is that it reduces the number of lines in the code and also makes the code more readable.
- Client-server systems, Object-oriented database, Real-time system design, etc. are some of the applications of OOP.



Webinar:

**Topic: Preparing for the Next Normal** 

Image of session:



