Importance of Interview Question

1. What is class & object ?

➔ Class is One type of container that contains data member(variable / Instance) and member functions(Method).

➔ object : Key of Class

2. What is Inheritance ?

➔ One class acquire properties of another class.

(એક કલાસને બીજા કલાસની પ્રોપર્ટીનો access મળે.)

➔ Types of Inheritance

(1) Single Inheritance.

(2) Multiple Inheritance.

(3) Multilevel Inheritance.

(4) Hierarchical Inheritance.

(5) Hybrid Inheritance.

3. What is Constructor ?

➔ A Constructor is a special type of Member Function that calls Automatically When Object of the class is created.

➔ No Return type

➔ Constructor always have the same name as per class.

4. Types of Constructor in flutter and Dart ?

➔ Three types

(1) Default Constructor - જો કોઈ કન્સ્ટ્રકટર કે જેની પાસે કોઈ પેરામીટર ન હોય તો તે ડિફોલ્ટ નો પ્રકાર હોય.

(2) Parameterized Constructor

(3) Named Constructor

5. What is Function ?

➔ Function is a block of statements that perform specific task.

➔ Types of function in Dart

(!) Required Functions

(!!) Named Parameterized Function -

(!!!) Optional Parameterized Functions – In [ ] parameter is not compulsory to enter

(!V) Default Parameterized Functions

6. What is Polymorphism ?

➔ Polymorphism means multiple forms. It means having more than one function with the same function name but with different functionalities.

➔ One thing but in different multiple form.

➔ (1) Compile time / Early Binding
(2) Run time / Late Binding

➔ Compile Time → (1) Method Overloading (2) Method overriding

7. What is Abstract Class ?

➔ In Abstract class it has unimplemented Instance and Method.

➔ A class can be declared abstract by using abstract keyword only.

8. Difference Between abstract class and Implicit Interface ?

➔ abstract class is Object Oriented. And Implicit Interface is Functionality Oriented.

➔ If you have some common methods that can be used by multiple classes go for abstract classes. Else if you want the classes to follow some definite blueprint go for interfaces.

Answer 1: *You cannot create an object of abstract class and interfaces.*

Answer 2: *Abstract classes can have a function body as partial/default implementation.*

Answer 3: *Interfaces allow multi-inheritance and abstract classes don't.*

Abstract classes can have constants, members, method stubs (methods without a body) and defined methods*, whereas interfaces can only have* constants *and* methods stubs*.*

Abstract class	Interface
1) Abstract class can **have abstract and non-abstract** methods.	Interface can have **only abstract** methods. it can have **default and static methods** also.
2) Abstract class **doesn't support multiple inheritance**.	Interface **supports multiple inheritance**.
3) Abstract class **can have final, non-final, static and non-static variables**.	Interface has **only static and final variables**.
4)Abstract class **can provide the implementation of interface**.	Interface **can't provide the implementation of abstract class**.
5) The **abstract keyword** is used to declare abstract class.	The **interface keyword** is used to declare interface.
6) An **abstract class** can be extended using keyword "extends".	An **interface** can be implemented using keyword "implements".
7) A **abstract class** can have class members like private, protected, etc.	Members of interface are public by default.

9. Exception Handle

➔ An error occur at runtime and its disturb Normal flow of program to handle this we use exception handling Method.

➔ Types of Exception Handling method in dart

→ **Try Catch Finally**

- Try ← condition
- Catch ← error catch in parameter
- Finally ← Perform final operation on the body

→ **Try on Final**

- Try ← Condition
- On ← Exception's type (પેલેથી ખબર હોય કે આ જ error આવે.)
- Final ← Perform final operation on the body

→ **Custom method**

10. **Difference between Constant & final ?**

➔ **Constant – Compile time no change value**

Final – runtime no change value / whole program no change value

11. **Explain Static keyword in Dart ?**

➔ **we don't required to create an object of the class to access Instance and Variable.**

(ઇન્સ્ટન્સ અને વેરીએબલને એક્સેસ કરવા માટે આપણે ક્લાસનો ઓબ્જેક્ટ બનાવવાની જરૂર નથી.)

12. **What is Dart ?**

➔ **Dart is an object oriented programing language with c-style syntax to build App , web & server Develop by Google In 2011.**

➔ **Built in types.**

- Integer
- Double
- dynamic
- Bool
- String
- var
- Num

➔ **Collection data types**

- List
- set
- Map

13. **What is List ?**

➔ **List is ordered group of elements.**

Each element in the List is identified by a unique number called the index.

14. **What is Set ?**

➔ **List is unordered group of elements.**

it doesn't contain any repeated input.

No Index in sets.

15. **What is Map ?**

➔ **Inside Map We have pair of Key and value.**

16. **Types Of Loop in Dart ?**

➔ - For loop

- Do while loop

- for each loop
- for In loop

17. What is Generic type in Dart ?

➔ We can create our own return types using TESKV keywords of method and Instance.

- Generic List

  In Dart, a List is simply an ordered group of objects. A list is simply an implementation of an array.

- Generic Set

  In Dart, a Set represents a collection of objects in which each object can exist only once.

- Generic Map

  In Dart, Map is a dynamic collection of the key, value pairs.

➔ < > આ ની અંદર Generic type લેવામાં આવે છે.

18. What is Higher order Function in Dart ?

➔ In dart programming language can accept a function as an argument, this type of functions is called higher order functions.

- Function as a parameter
- Function it self return another function

19. What is Lambda Function(anonymous Function) ?

➔ - Lambda is a short and concise manner to represent small functions.
- Lambda functions are also called Arrow functions.
- But here remember that by using Lambda function's syntax you can only return one expression. It must be only one line expression.

➔ syntax. :- parameter and body [( ) { }]
Parameter and fat arrow [( ) =>]

20. Difference between Sync & async ?

➔ sync :- When you execute something synchronously, you wait for it to finish before moving on to another task.
Multi task not happen.
One task complete then second task execute of sync.

➔ async :- When you execute something asynchronously, you can move on to another task before it finishes.
Multi task happen.
One task complete or not complete then second task execute of async.

21. What is Enum ?

➔ Enum is special type of class to store fix number of constant value.

22. Extension Method in Dart ?

➔ કલાસની અંદર કોઈ Method add કરાવવી હોય without Inheritance તો આપણે Extension Method create કરાવીને કરી શકીએ.

Flutter

23. What is Flutter ?

➔ Flutter is an UI tool kit Framework to build Multi platform Applications from single code base develop by Google in 2018.

➔ Backend Language is Used to Dart.

24. Difference between Hot Reloaded and Hot Restart ?

➔ Hot Restart :- Void Main refresh to click hot restart (આખો પ્રોગ્રામ refresh થાય.)

➔ Hot Reloaded :- built method refresh to click hot reloaded.

25. Difference between Stateless and stateful class ?

➔ Stateless widget immutable and static.
It's properties and appearance remain same at runtime.
Ex. :- Text , Row , Column , Icon , Image , ETC.

➔ Stateful widget mutable and dynamic.
It's properties and appearance changes at runtime.
Ex. :- slider , switch , check box , radio button , Ink well , etc.
- use of set state

26. why do we use set state ?

➔ Stateful ની અંદર instance ની value change and set કરાવવા.
Change and set થાય ત્યારે built method refresh થાય.

27. What is Context ?

➔ Context is a location of the widget threw out the widget tree.

28. what is Container widget in flutter ?

➔ Container is a widget that has the capacity to accommodate Multiple child widget and to Manage them by Margin , shape , colour , radius, etc.

29. Difference between List view and Listview.builder ?

➔ List View :- this is scrollable widget with children properties.
Types : List of Widget.

➔ List view. Builder : - Main 2 properties

((1) item count (name.length) and (2) item builder ← required properties

- Inside Parameter we get context and Index.
- Inside body માં return widget કરાવવા

30. What is Gridview.builder ?

➔ same as listview.builder but cross axis count properties મળે. જેનાથી આપણે એક બોક્સની બાજુમાં પણ ઘણા બધા બોક્સ લઈ શકોએ.

31. Difference between stream builder and future builder ?

➔ Future Builder : -

- Future and item builder મળે.
- Future properties માં async function call કરાવવો અને તેનો return type Future હોવો જોઈએ.
- When we use FutureBuilder, it has only one response. because it uses the Future object and Future has one and only one response. Basically, Future is used to handle HTTP requests. So we listen on a Future is its state. when it's done or had an error, that's it.

➔ stream builder :-

- 2 properties (1) builder (2) stream
- In side stream builder properties ->data live streaming
- uses : real time data pass
- special firebase database useable.

32. The advantages of flutter framework ?

➔ - Hot reloaded - Quick Rendering - Cross platform support
- Fast Development - Open source and free - Theme for android and IOS.

33. Application that made using flutter.

➔ - Google pay - Alibaba.com - eBay - Dream 11
- BMW - Toyota - Philipps - Grab
- Square - Capital 1 - MGM Resort - Watermaniac

34. Lifecycle of stateful widget ?

➔ **(1) Create State** (2) Mounted true **(3) Initstate**
(4) Did Change dependencies **(5) Build** (6) Did update widget
(7) Set state (8) Deactivate **(9) Dispose**
(10)Mounted false

35. What is Dispose ?

➔ - બધા જ controller clear કરાવવા માટે dispose નો ઉપયોગ થાય છે,
- dispose method used to release the memory allocated to variables when state object is removed.

36. why use State Management ?

➔ - Avoid set state
- To make the app run smoothly
- To separate UI part and Business logic

37. what is null safety in flutter ?

➔ Null Safety in simple words means a variable cannot contain a 'null' value unless you initialized with null to that variable. With null safety, all the runtime null-dereference errors will now be shown in compile time.

- જ્યારે Instance define કરીએ ત્યારે એ null ના હોવું જોઈએ. અને જો null રાખવું હોય (Intialize નથી કરવું) તો late keyword / ? (question tag) વાપરવો.