


ChatGPT

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1. i am send some question to you then answer them all
2. Sure! Feel free to send your questions, and I'll answer them all.

3. Here is a quiz based on the topics listed in your Dart learning path:
- #### Quiz on Dart Programming Basics ####
- **Section 1: Introduction and Setup****
1. ****What is Dart primarily used for?****
2. ****Name two platforms where Dart can run.****
- **Section 2: Environment Setup****
3. ****Which tool is required to run Dart programs on your local machine?****
4. ****How do you install Dart on a Windows machine?****
- **Section 3: Dart Basics****
5. ****Write the syntax for a “Hello World” program in Dart.****
6. ****What is the file extension for a Dart file?**
- **Section 4: Project Structure****
7. ****What is the purpose of the `main()` function in Dart?**
8. ****Where are dependencies declared in a Dart project?**
- **Section 5: Keywords and Syntax****
9. ****Name any three reserved keywords in Dart.**
10. ****What is the correct syntax for declaring a function in Dart?**
- **Section 6: Variables****
11. ****What keyword is used to declare a variable that never changes?**
12. ****What is the default value of an uninitialized variable in Dart?**
- **Section 7: Data Types and Numbers****
13. ****What are the two main numeric types in Dart?**
14. ****How do you declare a double-precision variable in Dart?**
- **Section 8: Strings and Booleans****
15. ****Write an example of string interpolation in Dart.**
16. ****What is the default value of a Boolean variable in Dart?**
- **Section 9: Lists****
17. ****What is the difference between a fixed-length list and a growable list in Dart?**
18. ****How can you add an element to a list in Dart?**
- **Section 10: Maps****
19. ****How do you declare a Map in Dart?**
20. ****Write an example of a Dart Map with string keys and integer values.**
- **Section 11: Operators****
21. ****Name two arithmetic operators in Dart.**
22. ****What is the output of the following code snippet?**

```
dart
int a = 10;
int b = 3;
print(a % b);
```

- #### ****Section 12: Constants****
23. ****What is the difference between `const` and `final` in Dart?**
24. ****Can a `const` variable in Dart be assigned a value at runtime?**
- **Section 13: List Properties****
25. ****How can you find the length of a list in Dart?**
26. ****What property would you use to check if a list is empty?**
- **Section 14: List Insert and Remove****
27. ****Which method is used to insert an element at a specific index in a list?**
28. ****Write the syntax to remove an element from a Dart list.**
- Let me know if you'd like detailed answers or additional questions!

4. Here are the answers to your Dart Programming Basics quiz:

Section 1: Introduction and Setup

1. What is Dart primarily used for?

Dart is primarily used for building cross-platform applications, particularly mobile, web, and server-side apps. It is the language used for developing applications with the Flutter framework.

2. Name two platforms where Dart can run.

Dart can run on both **web browsers** (via Dart-to-JavaScript compilation) and **mobile devices** (via Flutter).

Section 2: Environment Setup

3. Which tool is required to run Dart programs on your local machine?

You need the **Dart SDK** (Software Development Kit) to run Dart programs on your local machine.

4. How do you install Dart on a Windows machine?

You can install Dart on Windows by downloading the Dart SDK from the official Dart website (<https://dart.dev/get-dart>) and following the installation instructions for Windows. Alternatively, you can install Dart via **Chocolatey** or use **Flutter** if you're also working with Flutter.

Section 3: Dart Basics

5. Write the syntax for a “Hello World” program in Dart.

dart

```
void main() {  
  print('Hello, World!');  
}
```

6. What is the file extension for a Dart file?

The file extension for a Dart file is **.dart**.

Section 4: Project Structure

7. What is the purpose of the `main()` function in Dart?

The `main()` function is the entry point of a Dart application. It is where the program starts executing.

8. Where are dependencies declared in a Dart project?

Dependencies are declared in the `pubspec.yaml` file in a Dart project.

Section 5: Keywords and Syntax

9. Name any three reserved keywords in Dart.

- `class`
- `var`
- `int`

10. What is the correct syntax for declaring a function in Dart?

```
dart
```

```
returnType functionName(parameters) {  
    // function body  
}
```

Section 6: Variables

11. What keyword is used to declare a variable that never changes?

The keyword used is `final`.

12. What is the default value of an uninitialized variable in Dart?

The default value of an uninitialized variable in Dart depends on its type. For most types, the default value is `null`, except for numeric types (e.g., `int`, `double`), which default to `0`.

Section 7: Data Types and Numbers

13. What are the two main numeric types in Dart?

The two main numeric types in Dart are `int` (for integer numbers) and `double` (for floating-point numbers).

14. How do you declare a double-precision variable in Dart?

You declare a **double** like this:

```
dart
```

```
double pi = 3.14159;
```

Section 8: Strings and Booleans

15. Write an example of string interpolation in Dart.

```
dart
```

```
String name = 'John';  
print('Hello, $name!');
```

16. What is the default value of a Boolean variable in Dart?

The default value of a Boolean variable in Dart is **false**.

Section 9: Lists

17. What is the difference between a fixed-length list and a growable list in Dart?

- A **fixed-length list** cannot change its size after creation. It has a defined length that cannot be altered.
- A **growable list** can have elements added or removed after creation.

18. How can you add an element to a list in Dart?

You can add an element using the `add()` method:

```
dart
```

```
list.add(element);
```

Section 10: Maps

19. How do you declare a Map in Dart?

You declare a Map like this:

```
dart
```

```
Map<KeyType, ValueType> mapName = {};
```

20. Write an example of a Dart Map with string keys and integer values.

```
dart
```

```
Map<String, int> ages = {'Alice': 30, 'Bob': 25};
```

Section 11: Operators

21. Name two arithmetic operators in Dart.

- **+** (Addition)
- **-** (Subtraction)

22. What is the output of the following code snippet?

```
dart
```

```
int a = 10;  
int b = 3;  
print(a % b);
```

The output is **1** because 10 divided by 3 leaves a remainder of 1.

Section 12: Constants

23. What is the difference between **const** and **final** in Dart?

- **const** variables are **compile-time constants**. They must be initialized with a constant value known at compile time.
- **final** variables can be set only once but can be assigned a value at runtime.

24. Can a **const** variable in Dart be assigned a value at runtime?

No, a **const** variable cannot be assigned a value at runtime. Its value must be known at compile time.

Section 13: List Properties

25. How can you find the length of a list in Dart?

You can find the length of a list using the **length** property:

```
dart
```

```
int length = list.length;
```

26. What property would you use to check if a list is empty?

You can use the **isEmpty** property:

```
dart
```

```
bool isEmpty = list.isEmpty;
```

Section 14: List Insert and Remove

27. Which method is used to insert an element at a specific index in a list?

The method to insert an element at a specific index is **insert()**:

```
dart
```

```
list.insert(index, element);
```

28. Write the syntax to remove an element from a Dart list.

To remove an element, use the **remove()** method:

```
dart
```

```
list.remove(element);
```

Let me know if you'd like further explanations or need more details on any answer!

5. Here is a multiple-choice quiz to test your knowledge of Dart programming: 1. **What is Dart primarily used for?** - A) Web development - B) Mobile development using Flutter - C) Game development - D) Desktop applications 2. **Which keyword is used to declare a variable that cannot be reassigned after its initial assignment?** - A) var - B) const - C) let - D) dynamic 3. **What type of language is Dart classified as?** - A) Statically typed - B) Dynamically typed - C) Both statically and dynamically typed - D) Scripting 4. **Which Dart feature allows for creating UI elements or custom widgets in Flutter?** - A) Functions - B) Classes - C) Widgets - D) Elements 5. **What does the following Dart code print?**

```
dart
void main() {
  print('Dart is fun'.toUpperCase());
}
```

- A) Dart is fun - B) DART IS FUN - C) dart is fun - D) Error 6. **How do you define a list of integers in Dart?** - A) `List<int> numbers = [1, 2, 3];` - B) `int[] numbers = [1, 2, 3];` - C) `var numbers = [1, 2, 3];` - D) `int numbers = [1, 2, 3];` 7. **Analyze the behavior of the following Dart code.**

```
dart
void main() {
  final names = ['Alice', 'Bob', 'Charlie'];
  names.add('David');
  print(names);
}
```

- A) `[Alice, Bob, Charlie]` - B) `[Alice, Bob, Charlie, David]` - C) Error, cannot add to final list - D) None of the above 8. **What is the purpose of the `await` keyword in Dart?** - A) Pause function execution until a future completes - B) Repeats a loop execution - C) Error handling - D) None of the above 9. **Which is a valid way to define a function that returns no value in Dart?** - A) `function main() {}` - B) `void main() {}` - C) `main() {}` - D) None of the above 10. **What will the following Dart code output?**

```
dart
void main() {
  var x = 5;
  var result = x is int;
  print(result);
}
```

- A) true - B) false - C) error - D) none of the above 11. **What is Dart's null safety feature designed to prevent?** - A) Memory leaks - B) Syntax errors - C) Null dereference errors - D) Compilation errors

12. ****How do you declare a multi-line string in Dart?**** - A) Using single quotes (' ') - B) Using double quotes (" ") - C) Using triple quotes (' ' ' ' ' ') - D) Using backticks (`) 13. ****Consider the following Dart function. What is its return type?****

```
dart
bool isEven(int number) {
    return number % 2 == 0;
}
```

- A) int - B) double - C) bool - D) void 14. ****What does the ?. operator do in Dart?**** - A) It is a null-aware operator that allows methods or properties to be accessed on an object only if that object is not null. - B) It ensures that an object is not null before calling any of its methods. - C) It creates a new instance of an object if the existing one is null. - D) It throws an exception if the accessed variable is null. 15.

****How do you handle exceptions in Dart?**** - A) Using the error block - B) Using the catch block - C) Using the finally block - D) Using the except block 16. ****What will the following Dart code print?****

```
dart
void main() {
    int? age;
    print(age ?? 'Unknown');
}
```

- A) 0 - B) null - C) 'Unknown' - D) Error 17. ****In Dart, what does the extends keyword do?**** - A) It is used to create a new class that inherits properties and methods from another class. - B) It is used to implement an interface. - C) It is used to define a mixin. - D) It is used to declare an abstract class. 18. ****What is the Dart equivalent of a JavaScript arrow function?**** - A) Lambda - B) Fat arrow function - C) Single-line function - D) There is no equivalent 19. ****What feature allows Dart functions to skip specifying the types?**** - A) Dynamic typing - B) Type inference - C) Optional typing - D) Strong typing 20.

****What does the following code snippet demonstrate in Dart?****

```
dart
void main() {
    List<String> names = ['Alice', 'Bob', 'Charlie'];
    for (var name in names) {
        print(name);
    }
}
```

- A) List iteration using a for loop - B) Map creation - C) Set enumeration - D) None of the above 21. ****What Dart construct is used to group functions, variables, and other types together?**** - A)

Package - B) Library - C) Module - D) Script 22. ****What will the following Dart code print?****

```
dart
void main() {
  var numbers = [1, 2, 3];
  numbers.add(4);
  print(numbers.length);
}
```

- A) 3 - B) 4 - C) 5 - D) Error 23. ****How is immutability enforced in Dart for a list?**** - A) Using the immutable keyword - B) Using the final keyword - C) Using the const keyword - D) It cannot be enforced 24.

****Consider the following Dart function. What is the error in this code?****

```
dart
int addNumbers(int a, int b) {
  return a + b;
  print('Total: ${a + b}');
}
```

- A) Syntax error - B) Logical error, as the print statement will never execute - C) The function should not return a value - D) There is no error 25. ****What does the**

6. Here are the answers to your multiple-choice quiz:

1. What is Dart primarily used for?

B) Mobile development using Flutter

2. Which keyword is used to declare a variable that cannot be reassigned after its initial assignment?

B) const

3. What type of language is Dart classified as?

A) Statically typed

4. Which Dart feature allows for creating UI elements or custom widgets in Flutter?

C) Widgets

5. What does the following Dart code print?

```
dart
```

```
void main() {  
  print('Dart is fun'.toUpperCase());  
}
```

B) DART IS FUN

6. How do you define a list of integers in Dart?

A) `List<int> numbers = [1, 2, 3];`

7. Analyze the behavior of the following Dart code:

dart

```
void main() {  
  final names = ['Alice', 'Bob', 'Charlie'];  
  names.add('David');  
  print(names);  
}
```

B) [Alice, Bob, Charlie, David]

8. What is the purpose of the **await** keyword in Dart?

A) Pause function execution until a future completes

9. Which is a valid way to define a function that returns no value in Dart?

B) void main() {}

10. What will the following Dart code output?

dart

```
void main() {  
  var x = 5;  
  var result = x is int;  
  print(result);  
}
```

A) true

11. What is Dart's null safety feature designed to prevent?

C) Null dereference errors

12. How do you declare a multi-line string in Dart?

C) Using triple quotes (''' ''')

13. Consider the following Dart function. What is its return type?

dart

```
bool isEven(int number) {  
  return number % 2 == 0;  
}
```

C) bool

14. What does the **?.** operator do in Dart?

A) It is a null-aware operator that allows methods or properties to be accessed on an object only if that object is not null.

15. How do you handle exceptions in Dart?

B) Using the catch block

16. What will the following Dart code print?

dart

```
void main() {  
  int? age;  
  print(age ?? 'Unknown');  
}
```

C) 'Unknown'

17. In Dart, what does the **extends** keyword do?

A) It is used to create a new class that inherits properties and methods from another class.

18. What is the Dart equivalent of a JavaScript arrow function?

B) Fat arrow function

19. What feature allows Dart functions to skip specifying the types?

B) Type inference

20. What does the following code snippet demonstrate in Dart?

dart

```
void main() {  
  List<String> names = ['Alice', 'Bob', 'Charlie'];  
  for (var name in names) {  
    print(name);  
  }  
}
```

A) List iteration using a for loop

21. What Dart construct is used to group functions, variables, and other types together?

B) Library

22. What will the following Dart code print?

dart

```
void main() {  
  var numbers = [1, 2, 3];  
  numbers.add(4);  
  print(numbers.length);  
}
```

B) 4

23. How is immutability enforced in Dart for a list?

C) Using the const keyword

24. Consider the following Dart function. What is the error in this code?

dart

```
int addNumbers(int a, int b) {  
  return a + b;  
  print('Total: ${a + b}');  
}
```

B) Logical error, as the print statement will never execute

Let me know if you need further clarifications!

7. Certainly! Here is an additional set of 100 multiple-choice questions to further test your knowledge of Dart programming: 1. ****Which of the following is a valid way to declare a constant in Dart?**** - A) `const int x = 10;` - B) `final int x = 10;` - C) Both A and B - D) None of the above 2. ****What is the output of the following code?****

```
dart
void main() {
  var list = [1, 2, 3];
  list.add(4);
  print(list);
}
```

- A) `[1, 2, 3]` - B) `[1, 2, 3, 4]` - C) `[4, 1, 2, 3]` - D) Error 3. ****How do you declare a nullable variable in Dart?**** - A) `int? x;` - B) `int x?;` - C) `nullable int x;` - D) `int x = null;` 4. ****What is the purpose of the `late` keyword in Dart?**** - A) To declare a variable that is initialized later - B) To mark a function as asynchronous - C) To define a constant - D) To import a library 5. ****Which of the following is a valid way to create a set in Dart?**** - A) `var s = {1, 2, 3};` - B) `var s = Set.from([1, 2, 3]);` - C) Both A and B - D) None of the above 6. ****What does the following code print?****

```
dart
void main() {
  var x = 5;
  var y = x++;
  print(y);
}
```

- A) 4 - B) 5 - C) 6 - D) Error 7. ****How do you handle asynchronous operations in Dart?**** - A) Using callbacks - B) Using `Future` and `async/await` - C) Both A and B - D) None of the above 8. ****What is the output of the following code?****

```
dart
void main() {
  var x = 10;
  if (x is int) {
    print('Integer');
  } else {
    print('Not an integer');
  }
}
```

- A) Integer - B) Not an integer - C) Error - D) None of the above 9. ****Which of the following is true about Dart's type system?**** - A) Dart is statically typed - B) Dart is dynamically typed - C) Dart supports both static and dynamic typing - D) Dart is untyped 10. ****What is the purpose of the `assert` statement in Dart?**** - A) To throw an exception

- B) To check for conditions during development - C) To handle errors - D) To declare variables 11. ****How do you create a constant list in Dart?** - A) `const list = [1, 2, 3];` - B) `final list = [1, 2, 3];` - C) `var list = const [1, 2, 3];` - D) Both A and C 12. ****What is the output of the following code?**

```
dart
void main() {
  var x = 5;
  var y = --x;
  print(y);
}
```

- A) 4 - B) 5 - C) 6 - D) Error 13. ****Which of the following is a valid way to declare a map in Dart?** - A) `var map = {'key': 'value'};` - B) `var map = Map(); map['key'] = 'value';` - C) Both A and B - D) None of the above 14. ****What does the ?? operator do in Dart?** - A) Checks for null and assigns a default value - B) Throws an exception if null - C) Converts null to zero - D) None of the above 15. ****How do you define a getter in Dart?** - A) `int get value => _value;` - B) `int value() { return _value; }` - C) `int value { return _value; }` - D) `int getValue() { return _value; }` 16. ****What is the output of the following code?**

```
dart
void main() {
  var list = [1, 2, 3];
  list[1] = 4;
  print(list);
}
```

- A) `[1, 2, 3]` - B) `[1, 4, 3]` - C) `[4, 2, 3]` - D) Error 17. ****Which of the following is a valid way to create a singleton in Dart?** - A) Using a factory constructor - B) Using a static instance - C) Both A and B - D) None of the above 18. ****What is the purpose of the @override annotation in Dart?** - A) To indicate that a method overrides a superclass method - B) To prevent a method from being overridden - C) To mark a method as deprecated - D) To define a constructor 19. ****How do you declare an abstract class in Dart?** - A) `abstract class MyClass {}` - B) `class MyClass abstract {}` - C) `class abstract MyClass {}` - D) `abstract MyClass {}` 20. ****What is the output of the following code?**

```
dart
void main() {
  var x = 5;
  var y = x ~/ 2;
  print(y);
}
```

- A) 2 - B) 2.5 - C) 3 - D) Error 21. **Which of the following is true about Dart's `Future` class?** - A) It represents a value that will be available at some point - B) It is used for synchronous operations - C) It blocks the main thread - D) None of the above 22. **How do you handle exceptions in Dart?** - A) Using `try` and `catch` blocks - B) Using `throw` statements - C) Both A and B - D) None of the above 23. **What is the purpose of the `Stream` class in Dart?** - A) To

8. Here are the answers for the next set of Dart questions:

1. Which of the following is a valid way to declare a constant in Dart?

C) Both A and B

2. What is the output of the following code?

```
dart
```

```
void main() {  
  var list = [1, 2, 3];  
  list.add(4);  
  print(list);  
}
```

B) [1, 2, 3, 4]

3. How do you declare a nullable variable in Dart?

A) `int? x;`

4. What is the purpose of the `late` keyword in Dart?

A) To declare a variable that is initialized later

5. Which of the following is a valid way to create a set in Dart?

C) Both A and B

6. What does the following code print?

dart

```
void main() {  
  var x = 5;  
  var y = x++;  
  print(y);  
}
```

B) 5

7. How do you handle asynchronous operations in Dart?

B) Using `Future` and `async/await`

8. What is the output of the following code?

dart

```
void main() {  
  var x = 10;  
  if (x is int) {  
    print('Integer');  
  } else {  
    print('Not an integer');  
  }  
}
```

A) Integer

9. Which of the following is true about Dart's type system?

C) Dart supports both static and dynamic typing

10. What is the purpose of the `assert` statement in Dart?

B) To check for conditions during development

11. How do you create a constant list in Dart?

D) Both A and C

12. What is the output of the following code?

dart

```
void main() {  
  var x = 5;  
  var y = --x;  
  print(y);  
}
```

A) 4

13. Which of the following is a valid way to declare a map in Dart?

C) Both A and B

14. What does the **??** operator do in Dart?

A) Checks for null and assigns a default value

15. How do you define a getter in Dart?

A) `int get value => _value;`

16. What is the output of the following code?

dart

```
void main() {  
  var list = [1, 2, 3];  
  list[1] = 4;  
  print(list);  
}
```

B) [1, 4, 3]

17. Which of the following is a valid way to create a singleton in Dart?

C) Both A and B

18. What is the purpose of the `@override` annotation in Dart?

A) To indicate that a method overrides a superclass method

19. How do you declare an abstract class in Dart?

A) `abstract class MyClass {}`

20. What is the output of the following code?

```
dart
```

```
void main() {  
  var x = 5;  
  var y = x ~/ 2;  
  print(y);  
}
```

A) 2

21. Which of the following is true about Dart's `Future` class?

A) It represents a value that will be available at some point

22. How do you handle exceptions in Dart?

C) Both A and B

23. What is the purpose of the `Stream` class in Dart?

D) To handle sequences of asynchronous events

Let me know if you need more questions or explanations!

9. Certainly! Here is an additional set of 100 multiple-choice questions to further test your knowledge of Dart programming: 1. **What is Dart primarily used for?** - A) Web development - B) Mobile development using Flutter - C) Game development - D) Desktop applications 2. **Which keyword is used to declare a variable that cannot be reassigned after its initial assignment?** - A) var - B) const - C) let - D) dynamic 3. **What type of language is Dart classified as?** - A) Statically typed - B) Dynamically typed - C) Both statically and dynamically typed - D) Scripting 4. **Which Dart feature allows for creating UI elements or custom widgets in Flutter?** - A) Functions - B) Classes - C) Widgets - D) Elements 5. **What does the following Dart code print?**

```
dart
void main() {
  print('Dart is fun'.toUpperCase());
}
```

- A) Dart is fun - B) DART IS FUN - C) dart is fun - D) Error 6. **How do you define a list of integers in Dart?** - A) `List<int> numbers = [1, 2, 3];` - B) `int[] numbers = [1, 2, 3];` - C) `var numbers = [1, 2, 3];` - D) `int numbers = [1, 2, 3];` 7. **Analyze the behavior of the following Dart code.**

```
dart
void main() {
  final names = ['Alice', 'Bob', 'Charlie'];
  names.add('David');
  print(names);
}
```

- A) `[Alice, Bob, Charlie]` - B) `[Alice, Bob, Charlie, David]` - C) Error, cannot add to final list - D) None of the above 8. **What is the purpose of the `await` keyword in Dart?** - A) Pause function execution until a future completes - B) Repeats a loop execution - C) Error handling - D) None of the above 9. **Which is a valid way to define a function that returns no value in Dart?** - A) `function main() {}` - B) `void main() {}` - C) `main() {}` - D) None of the above 10. **What will the following Dart code output?**

```
dart
void main() {
  var x = 5;
  var result = x is int;
  print(result);
}
```

- A) true - B) false - C) error - D) none of the above 11. **What is Dart's null safety feature designed to prevent?** - A) Memory leaks -

B) Syntax errors - C) Null dereference errors - D) Compilation errors

12. ****How do you declare a multi-line string in Dart?**** - A) Using single quotes (' ') - B) Using double quotes (" ") - C) Using triple quotes (' ' ' ' ' ') - D) Using backticks (` `) 13. ****Consider the following Dart function. What is its return type?****

```
dart
bool isEven(int number) {
    return number % 2 == 0;
}
```

- A) int - B) double - C) bool - D) void 14. ****What does the ?. operator do in Dart?**** - A) It is a null-aware operator that allows methods or properties to be accessed on an object only if that object is not null. - B) It ensures that an object is not null before calling any of its methods. - C) It creates a new instance of an object if the existing one is null. - D) It throws an exception if the accessed variable is null. 15.

****How do you handle exceptions in Dart?**** - A) Using the error block - B) Using the catch block - C) Using the finally block - D) Using the except block 16. ****What will the following Dart code print?****

```
dart
void main() {
    int? age;
    print(age ?? 'Unknown');
}
```

- A) 0 - B) null - C) 'Unknown' - D) Error 17. ****In Dart, what does the extends keyword do?**** - A) It is used to create a new class that inherits properties and methods from another class. - B) It is used to implement an interface. - C) It is used to define a mixin. - D) It is used to declare an abstract class. 18. ****What is the Dart equivalent of a JavaScript arrow function?**** - A) Lambda - B) Fat arrow function - C) Single-line function - D) There is no equivalent 19. ****What feature allows Dart functions to skip specifying the types?**** - A) Dynamic typing - B) Type inference - C) Optional typing - D) Strong typing 20. ****What does the following code snippet demonstrate in Dart?****

```
dart
void main() {
    List<String> names = ['Alice', 'Bob', 'Charlie'];
    for (var name in names) {
        print(name);
    }
}
```

- A) List iteration using a for loop - B) Map creation - C) Set enumeration - D) None of the above 21. ****What Dart construct is used to group functions, variables, and other types together?**** - A)

Package - B) Library - C) Module - D) Script 22. ****What will the following Dart code print?****

```
dart
void main() {
  var numbers = [1, 2, 3];
  numbers.add(4);
  print(numbers.length);
}
```

- A) 3 - B) 4 - C) 5 - D) Error 23. ****How is immutability enforced in Dart for a list?**** - A) Using the immutable keyword - B) Using the final keyword - C) Using the const keyword - D) It cannot be enforced 24.

****Consider the following Dart function. What is the error in this code?****

```
dart
int addNumbers(int a, int b) {
  return a + b;
  print('Total: ${a + b}');
}
```

- A) Syntax error - B) Logical error, as the print statement will never execute - C) The function should not return a value - D) There is no

10. error in the code.

25. Which of the following is used for creating an asynchronous operation in Dart?

- A) `async` keyword
- B) `await` keyword
- C) `Future` class
- D) All of the above

26. What is the purpose of `async` in Dart?

- A) To mark a function as asynchronous
- B) To make a function return a `Future`
- C) To allow other tasks to run while waiting for a result
- D) All of the above

27. What does the `await` keyword do in Dart?

- A) It waits for an asynchronous operation to complete before proceeding
- B) It makes a function return immediately
- C) It executes the function synchronously
- D) It handles exceptions

28. What will the following code print?

`dart`

```
void main() {  
  String message = 'Hello, Dart!';  
  message = message.replaceAll('Dart', 'Flutter');  
  print(message);  
}
```

- A) Hello, Dart!
- B) Hello, Flutter!
- C) Error
- D) Hello, Dart! Flutter

29. What does the `is` keyword in Dart do?

- A) Checks if an object is of a specific type
- B) Declares a variable type
- C) Creates a new instance of a class
- D) None of the above

30. How do you implement a class that can be instantiated in Dart?

- A) Using **abstract class**
- B) Using a constructor
- C) Using **factory** constructor
- D) None of the above

31. What is the output of the following Dart code?

```
dart
```

```
void main() {  
  var result = 'dart' + 'lang';  
  print(result);  
}
```

- A) dart lang
- B) dartlang
- C) Error
- D) langdart

32. Which of the following is NOT a feature of Dart?

- A) Hot reload
- B) Just-in-time (JIT) compilation
- C) Native support for iOS and Android
- D) Support for multiple inheritance

33. How do you call a method on a nullable object in Dart?

- A) Using the **?.** operator
- B) Using the **!** operator
- C) Directly without any operator
- D) Using **??**

34. What is the correct syntax to define a setter in Dart?

- A) **void set value(int val) { _value = val; }**
- B) **set int value(int val) { _value = val; }**
- C) **int set value(int val) { _value = val; }**
- D) **void value(int val) { _value = val; }**

35. What does the **final** keyword in Dart do?

- A) It makes a variable immutable after assignment
- B) It allows a variable to be reassigned later
- C) It marks a class as abstract
- D) It is used to define constants

36. What will the following Dart code print?

```
dart
```

```
void main() {  
  var x = 5;  
  var y = x++;  
  print(y);  
}
```

- A) 4
- B) 5
- C) 6
- D) Error

37. What does the **??=** operator do in Dart?

- A) It assigns a value to a variable if the variable is null
- B) It throws an exception if the variable is null
- C) It checks if a variable is null
- D) It does nothing if the variable is null

38. Which of the following is true about Dart's **Map** collection?

- A) It stores key-value pairs
- B) It is ordered by keys
- C) It cannot have duplicate keys
- D) All of the above

39. What is the purpose of **super** in Dart?

- A) To call a superclass constructor
- B) To invoke a method of the superclass
- C) To access a superclass member variable
- D) All of the above

40. How can you check if a **List** contains a specific element in Dart?

- A) Using `list.contains()`
- B) Using `list.has()`
- C) Using `list.indexOf()`
- D) Both A and C

41. What will the following code print?

dart

```
void main() {  
  var x = 10;  
  var y = x * 2;  
  print('$x times 2 is $y');  
}
```

- A) 10 times 2 is 20
- B) x times 2 is 20
- C) 10 times 2 is y
- D) 10 times 2 is 10

42. Which of the following is true about Dart's **List** collection?

- A) It is ordered
- B) It allows duplicate elements
- C) It can store heterogeneous data
- D) All of the above

43. Which of the following syntax is used to create a new object in Dart?

- A) `new MyClass()`
- B) `MyClass()`
- C) `Object.create(MyClass())`
- D) `Object new MyClass()`

44. How do you import a Dart package?

- A) `import 'package:my_package/my_package.dart';`
- B) `import 'my_package.dart';`
- C) `import package('my_package');`
- D) None of the above

45. Which of the following will return the first item from a **List** in Dart?

- A) `list[0]`
- B) `list.first`
- C) Both A and B
- D) None of the above

46. What is a feature of Dart's garbage collection?

- A) It automatically frees unused memory
- B) It is deterministic
- C) It must be manually triggered by the developer
- D) It does not affect performance

47. Which of the following is a valid way to define a constant in Dart?

- A) `const double pi = 3.14;`
- B) `final double pi = 3.14;`
- C) `var pi = 3.14;`
- D) None of the above

48. What will the following code print?

dart

```
void main() {  
  var x = 5;  
  var y = ++x;  
  print(y);  
}
```

- A) 4
- B) 5
- C) 6
- D) Error

49. What is the output of the following Dart code?

dart

```
void main() {  
  var list = [1, 2, 3];  
  list.removeAt(1);  
  print(list);  
}
```

- A) [1, 3]
- B) [2, 3]
- C) [1, 2]
- D) Error

50. How do you handle asynchronous code using **Future** in Dart?

- A) Using **await** keyword
- B) Using **then()** method
- C) Using **catchError()** for handling errors
- D) All of the above

11. now answer them

12. Here are the answers to the questions:

1. **B) Mobile development using Flutter**
2. **B) const**
3. **A) Statically typed**
4. **C) Widgets**
5. **B) DART IS FUN**
6. **A) `List<int> numbers = [1, 2, 3];`**
7. **B) `[Alice, Bob, Charlie, David]`**
8. **A) Pause function execution until a future completes**
9. **B) `void main() {}`**
10. **A) true**
11. **C) Null dereference errors**
12. **C) Using triple quotes (`''' '''`)**
13. **C) bool**
14. **A) It is a null-aware operator that allows methods or properties to be accessed on an object only if that object is not null.**
15. **B) Using the catch block**
16. **C) 'Unknown'**
17. **A) It is used to create a new class that inherits properties and methods from another class.**
18. **B) Fat arrow function**
19. **B) Type inference**
20. **A) List iteration using a for loop**
21. **B) Library**
22. **B) 4**
23. **C) Using the const keyword**
24. **B) Logical error, as the print statement will never execute**
25. **D) All of the above**
26. **D) All of the above**
27. **A) It waits for an asynchronous operation to complete before proceeding**
28. **B) Hello, Flutter!**
29. **A) Checks if an object is of a specific type**
30. **B) Using a constructor**
31. **B) dartlang**
32. **D) Support for multiple inheritance**
33. **A) Using the `?.` operator**
34. **A) `void set value(int val) { _value = val; }`**
35. **A) It makes a variable immutable after assignment**
36. **A) 4**
37. **A) It assigns a value to a variable if the variable is null**
38. **D) All of the above**
39. **D) All of the above**
40. **D) Both A and C**
41. **A) 10 times 2 is 20**

- 42. D) All of the above
- 43. B) `MyClass()`
- 44. A) `import 'package:my_package/my_package.dart';`
- 45. C) Both A and B
- 46. A) It automatically frees unused memory
- 47. A) `const double pi = 3.14;`
- 48. C) 6
- 49. A) `[1, 3]`
- 50. D) All of the above

13. Certainly! Here is an additional set of 100 multiple-choice questions to further test your knowledge of Dart programming: 1. **What is Dart primarily used for?** - A) Web development - B) Mobile development using Flutter - C) Game development - D) Desktop applications 2. **Which keyword is used to declare a variable that cannot be reassigned after its initial assignment?** - A) var - B) const - C) let - D) dynamic 3. **What type of language is Dart classified as?** - A) Statically typed - B) Dynamically typed - C) Both statically and dynamically typed - D) Scripting 4. **Which Dart feature allows for creating UI elements or custom widgets in Flutter?** - A) Functions - B) Classes - C) Widgets - D) Elements 5. **What does the following Dart code print?**

```
dart
void main() {
  print('Dart is fun'.toUpperCase());
}
```

- A) Dart is fun - B) DART IS FUN - C) dart is fun - D) Error 6. **How do you define a list of integers in Dart?** - A) `List<int> numbers = [1, 2, 3];` - B) `int[] numbers = [1, 2, 3];` - C) `var numbers = [1, 2, 3];` - D) `int numbers = [1, 2, 3];` 7. **Analyze the behavior of the following Dart code.**

```
dart
void main() {
  final names = ['Alice', 'Bob', 'Charlie'];
  names.add('David');
  print(names);
}
```

- A) `[Alice, Bob, Charlie]` - B) `[Alice, Bob, Charlie, David]` - C) Error, cannot add to final list - D) None of the above 8. **What is the purpose of the `await` keyword in Dart?** - A) Pause function execution until a future completes - B) Repeats a loop execution - C) Error handling - D) None of the above 9. **Which is a valid way to define a function that returns no value in Dart?** - A) `function main() {}` - B) `void main() {}` - C) `main() {}` - D) None of the above 10. **What will the following Dart code output?**

```
dart
void main() {
  var x = 5;
  var result = x is int;
  print(result);
}
```

- A) true - B) false - C) error - D) none of the above 11. **What is Dart's null safety feature designed to prevent?** - A) Memory leaks -

B) Syntax errors - C) Null dereference errors - D) Compilation errors

12. ****How do you declare a multi-line string in Dart?**** - A) Using single quotes (' ') - B) Using double quotes (" ") - C) Using triple quotes (' ' ' ' ' ') - D) Using backticks (` `) 13. ****Consider the following Dart function. What is its return type?****

```
dart
bool isEven(int number) {
    return number % 2 == 0;
}
```

- A) int - B) double - C) bool - D) void 14. ****What does the ?. operator do in Dart?**** - A) It is a null-aware operator that allows methods or properties to be accessed on an object only if that object is not null. - B) It ensures that an object is not null before calling any of its methods. - C) It creates a new instance of an object if the existing one is null. - D) It throws an exception if the accessed variable is null. 15.

****How do you handle exceptions in Dart?**** - A) Using the error block - B) Using the catch block - C) Using the finally block - D) Using the except block 16. ****What will the following Dart code print?****

```
dart
void main() {
    int? age;
    print(age ?? 'Unknown');
}
```

- A) 0 - B) null - C) 'Unknown' - D) Error 17. ****In Dart, what does the extends keyword do?**** - A) It is used to create a new class that inherits properties and methods from another class. - B) It is used to implement an interface. - C) It is used to define a mixin. - D) It is used to declare an abstract class. 18. ****What is the Dart equivalent of a JavaScript arrow function?**** - A) Lambda - B) Fat arrow function - C) Single-line function - D) There is no equivalent 19. ****What feature allows Dart functions to skip specifying the types?**** - A) Dynamic typing - B) Type inference - C) Optional typing - D) Strong typing 20. ****What does the following code snippet demonstrate in Dart?****

```
dart
void main() {
    List<String> names = ['Alice', 'Bob', 'Charlie'];
    for (var name in names) {
        print(name);
    }
}
```

- A) List iteration using a for loop - B) Map creation - C) Set enumeration - D) None of the above 21. ****What Dart construct is used to group functions, variables, and other types together?**** - A)

Package - B) Library - C) Module - D) Script 22. ****What will the following Dart code print?****

```
dart
void main() {
  var numbers = [1, 2, 3];
  numbers.add(4);
  print(numbers.length);
}
```

- A) 3 - B) 4 - C) 5 - D) Error 23. ****How is immutability enforced in Dart for a list?**** - A) Using the immutable keyword - B) Using the final keyword - C) Using the const keyword - D) It cannot be enforced 24.

****Consider the following Dart function. What is the error in this code?****

```
dart
int addNumbers(int a, int b) {
  return a + b;
  print('Total: ${a + b}');
}
```

- A) Syntax error - B) Logical error, as the print statement will never execute - C) The function should not return a value - D) There is no

14. Here are the answers to the questions:

1. **B) Mobile development using Flutter**
2. **B) const**
3. **A) Statically typed**
4. **C) Widgets**
5. **B) DART IS FUN**
6. **A) `List<int> numbers = [1, 2, 3];`**
7. **B) `[Alice, Bob, Charlie, David]`**
8. **A) Pause function execution until a future completes**
9. **B) `void main() {}`**
10. **A) true**
11. **C) Null dereference errors**
12. **C) Using triple quotes (`''' '''`)**
13. **C) bool**
14. **A) It is a null-aware operator that allows methods or properties to be accessed on an object only if that object is not null.**
15. **B) Using the catch block**
16. **C) 'Unknown'**
17. **A) It is used to create a new class that inherits properties and methods from another class.**
18. **B) Fat arrow function**
19. **B) Type inference**
20. **A) List iteration using a for loop**
21. **B) Library**
22. **B) 4**
23. **C) Using the const keyword**
24. **B) Logical error, as the print statement will never execute**

15. Here are 100 more multiple-choice questions to continue your Dart programming quiz: 1. ****Which of the following keywords is used to define a class in Dart?**** - A) `class` - B) `object` - C) `struct` - D) `type` 2. ****What does the `async` keyword do in Dart?**** - A) Marks a function as asynchronous - B) Makes a function synchronous - C) Defines a method that returns a Future - D) Both A and C 3. ****What is the output of the following Dart code?****

```
dart
void main() {
  var result = 5 ~/ 2;
  print(result);
}
```

- A) 2 - B) 2.5 - C) 3 - D) Error 4. ****Which of the following is used to handle asynchronous operations in Dart?**** - A) Future - B) List - C) Stream - D) Error 5. ****Which operator in Dart is used for null-aware access?**** - A) `!!` - B) `?.` - C) `??` - D) `!=` 6. ****What is a valid way to define a getter in Dart?**** - A) `int get value => _value;` - B) `int value() { return _value; }` - C) `get value() { return _value; }` - D) `value { return _value; }` 7. ****Which keyword is used to declare an abstract class in Dart?**** - A) `abstract` - B) `extends` - C) `interface` - D) `class` 8. ****What is the difference between `final` and `const` in Dart?**** - A) `final` is used for runtime constant values, and `const` is used for compile-time constants. - B) `final` can be reassigned, while `const` cannot. - C) `final` allows null values, but `const` does not. - D) There is no difference. 9. ****What will the following code output?****

```
dart
void main() {
  var x = '5';
  var y = int.parse(x);
  print(y);
}
```

- A) 5 - B) `null` - C) Error - D) 5.0 10. ****What is the purpose of the `set` keyword in Dart?**** - A) To define a method that sets values - B) To define a list of values - C) To define a function with return type - D) To declare a set data type 11. ****How do you create a map in Dart?**** - A) `var map = {key: value};` - B) `var map = new Map();` - C) `var map = Map<String, int>();` - D) All of the above 12. ****What is the output of the following code?****

```
dart
void main() {
  var x = 5;
  var y = x++;
  print(y);
}
```

- A) 4 - B) 5 - C) 6 - D) Error 13. **Which of the following is a valid way to handle errors in Dart?** - A) `try` and `catch` - B) `try`, `catch`, and `finally` - C) `throw` statement - D) All of the above 14. **What does the `dynamic` keyword allow you to do in Dart?** - A) Define a variable that can hold any type of value - B) Dynamically change the type of a variable at runtime - C) Both A and B - D) None of the above 15. **What is the output of the following code?**

```
dart
void main() {
  var x = 5;
  var result = (x == 5) ? 'Yes' : 'No';
  print(result);
}
```

- A) Yes - B) No - C) Error - D) None of the above 16. **Which keyword is used to indicate that a variable will be initialized later in Dart?** - A) `final` - B) `const` - C) `late` - D) `dynamic` 17. **What does the `Stream` class in Dart represent?** - A) A collection of asynchronous events - B) A collection of synchronous data - C) A type of loop for iteration - D) A data structure for storing elements 18. **What is the output of the following Dart code?**

```
dart
void main() {
  var x = 5;
  print(x is int);
}
```

- A) true - B) false - C) 5 - D) Error 19. **Which of the following is the correct syntax for defining a function that accepts a parameter?** - A) `function myFunc(int x) {}` - B) `void myFunc(int x) {}` - C) `myFunc(int x) {}` - D) `int myFunc(int x) {}` 20. **What will the following code print?**

```
dart
void main() {
  var list = [1, 2, 3];
  list.removeAt(1);
  print(list);
}
```

- A) [1, 3] - B) [2, 3] - C) [1, 2] - D) [1, 2, 3] 21. **What does the `??` operator do in Dart?** - A) Checks if a variable is null and assigns a

default value - B) Checks if a variable is undefined - C) Forces a variable to be null - D) None of the above 22. ****Which of the following methods is used to add an element to a list in Dart?**** - A) `add()` - B) `insert()` - C) `addAll()` - D) All of the above 23. ****What is a valid way to define a class constructor in Dart?**** - A) `MyClass() {}` - B) `MyClass({})` - C) `MyClass() : super() {}` - D) All of the above 24. ****Which of the following is the correct way to create a set in Dart?**** - A) `var set = {};` - B) `var set = Set<int>();` - C) `var set = new Set<int>();` - D) Both B and C 25. ****What will the following code output?****

```
dart
void main() {
  var name = 'Alice';
  var age = 25;
  print('Name: $name, Age: $age');
}
```

- A) `Name: Alice, Age: 25` - B) `Name: , Age:` - C) `Alice, 25` - D) `Name: Alice Age: 25` 26. ****What does the `const` keyword in Dart do?** - A) Creates a constant value that can never change - B) Defines a constant constructor - C) Makes a value available at compile-time - D) All of the above 27. ****Which of the following is the correct way to define a function that returns a Future in Dart?** - A) `Future<void> myFunc() async {}` - B) `void myFunc() async { return Future;}` - C) `Future myFunc() {}` - D) `Future myFunc() async {}` 28. ****Which method is used to create a deep copy of a list in Dart?** - A) `list.copy()` - B) `list.clone()` - C) `list.toList()` - D) `list.addAll()` 29. ****Which of the following is true about `final` variables in Dart?** - A) They can be assigned only once but can be mutable. - B) They cannot be assigned at all. - C) They can be reassigned. - D) They must be constant. 30. ****What is the purpose of the `super` keyword in Dart?** - A) To call the constructor of the parent class - B) To define a parent class - C) To call a static method - D) To define a subclass constructor 31. ****What does the `is` operator do in Dart?** - A) Checks if an object is of a specific type - B) Checks if an object is null - C) Performs an addition operation - D) Checks if an object is an instance of a class 32. ****Which of the following is a valid way to define a static method in Dart?** - A) `static void myMethod() {}` - B) `void static myMethod() {}` - C) `void myMethod static() {}` - D) `static myMethod() {}` 33. ****Which of the following correctly uses a named parameter in Dart?** - A) `func(int x, {int y}) {}` - B) `func(int x, [int y]) {}` - C) `func({int x, int y}) {}` - D) `func(int x, int y) {}` 34. ****What is the correct way to check whether a number is odd in Dart?** - A) `if (x % 2 == 1)` - B) `if (x % 2 != 0)` - C) `if (x.isOdd)` - D) Both B and C 35. ****Which of the**

following is used for defining an immutable list in Dart? - A) `const List()` - B) `final List()` - C) `List.unmodifiable()` - D) All of the above

16. Here are the answers to the next set of questions:

1. A) `class`
2. D) Both A and C
3. A) 2
4. A) Future
5. B) `?.`
6. A) `int get value => _value;`
7. A) `abstract`
8. A) `final` is used for runtime constant values, and `const` is used for compile-time constants.
9. A) 5
10. A) To define a method that sets values
11. D) All of the above
12. B) 5
13. D) All of the above
14. C) Both A and B
15. A) Yes
16. C) `late`
17. A) A collection of asynchronous events
18. A) true
19. B) `void myFunc(int x) {}`
20. A) [1, 3]
21. A) Checks if a variable is null and assigns a default value
22. D) All of the above
23. D) All of the above
24. D) Both B and C
25. A) `Name: Alice, Age: 25`
26. D) All of the above
27. A) `Future<void> myFunc() async {}`
28. C) `list.toList()`
29. A) They can be assigned only once but can be mutable.
30. A) To call the constructor of the parent class
31. A) Checks if an object is of a specific type
32. A) `static void myMethod() {}`
33. C) `func({int x, int y}) {}`
34. D) Both B and C
35. D) All of the above

Let me know if you'd like to continue with more questions or need any clarifications!

17. Here are more Dart programming multiple-choice questions: 36.

****What is the output of the following Dart code?****

```
dart
void main() {
  var x = 'hello';
  var y = x.substring(1, 4);
  print(y);
}
```

- A) **ell** - B) **hel** - C) **hello** - D) **Error** 37. ****What will the following code print?****

```
dart
void main() {
  var x = [1, 2, 3];
  var y = x + [4, 5];
  print(y);
}
```

- A) **[1, 2, 3, 4, 5]** - B) **[1, 2, 3, [4, 5]]** - C) **[4, 5, 1, 2, 3]**
- D) **[5, 4, 3, 2, 1]** 38. ****Which operator is used to combine strings in Dart?****

- A) **&** - B) **+** - C) **,** - D) **=** 39. ****Which of the following statements about Dart's Map is true?**** - A) A **Map** is an ordered collection of key-value pairs. - B) A **Map** is indexed by integers. - C) A **Map** can only hold **String** keys. - D) None of the above 40. ****Which method is used to check if an element is present in a Dart list?****

- A) **contains()** - B) **has()** - C) **exists()** - D) **in()** 41. ****Which of the following is the correct way to initialize a list in Dart with values 1, 2, and 3?**** - A) **var list = [1, 2, 3];** - B) **var list = {1, 2, 3};** - C) **var list = List(1, 2, 3);** - D) **var list = List<int>(3);** 42.

****What is the default value of an uninitialized local variable in Dart?**** -

A) **null** - B) **0** - C) **false** - D) **undefined** 43. ****Which of the following is used to define a function that returns a stream in Dart?**** - A) **Stream<void> function() async {}** - B) **Future<void> function() { return Stream; }** - C) **Stream<void> function() { return Stream; }** - D) **void function() async { return Stream; }** 44.

****What is the result of the following Dart code?****

```
dart
void main() {
  var x = 10;
  var result = x % 3;
  print(result);
}
```

- A) **1** - B) **2** - C) **10** - D) **3** 45. ****What is the keyword used to import libraries in Dart?**** - A) **import** - B) **use** - C) **include** - D) **require** 46.

****Which of the following is used to define a constant list in Dart?**** - A) **const List<int> list = [1, 2, 3];** - B) **final List<int> list =**

[1, 2, 3]; - C) `List<int> list = const [1, 2, 3];` - D) All of the above 47. **What will be the output of the following code?**

```
dart
void main() {
  var set1 = {1, 2, 3};
  var set2 = {3, 4, 5};
  var result = set1.intersection(set2);
  print(result);
}
```

- A) {3} - B) {1, 2, 3} - C) {3, 4, 5} - D) Error 48. **Which of the following is correct for defining a function with named parameters in Dart?** - A) `void myFunc({int x, int y}) {}` - B) `void myFunc(int x, int y) {}` - C) `void myFunc([int x, int y]) {}` - D) `void myFunc([int x = 0, int y = 0]) {}` 49. **Which method is used to remove an element from a Dart set?** - A) `delete()` - B) `remove()` - C) `discard()` - D) `clear()` 50. **What is the result of the following Dart code?**

```
dart
void main() {
  var x = 3.14;
  var y = x.toString();
  print(y);
}
```

- A) 3.14 - B) 3 - C) null - D) Error 51. **What is the purpose of the `Iterable` class in Dart?** - A) To create collections of values - B) To allow iterating over a collection of elements - C) To store only unique elements - D) To define custom collections 52. **Which of the following will result in an error?** - A) `int x = 5;` - B) `x = 'string';` - C) `int y = 5.0;` - D) `String name = 'Alice';` 53. **What does the `double` type represent in Dart?** - A) A floating-point number - B) A decimal value - C) A number with two decimal places - D) Both A and B 54. **How do you declare an asynchronous function in Dart?** - A) `void async function() {}` - B) `async void function() {}` - C) `Future<void> function() async {}` - D) `async Future<void> function() {}` 55. **Which of the following collections is an unordered collection in Dart?** - A) List - B) Set - C) Map - D) None of the above 56. **Which statement will print `true` in Dart?** - A) `print(3 > 5);` - B) `print(3 == 5);` - C) `print(3 != 5);` - D) `print(3 <= 5);` 57. **How do you declare a nullable type in Dart?** - A) `String? name;` - B) `String null name;` - C) `String name = null;` - D) `null String name;` 58. **Which of the following methods removes all elements from a Dart list?** - A) `clear()` - B) `removeAll()` - C) `delete()` - D) `reset()` 59. **What is the purpose of the `await` keyword in Dart?** - A) To wait for an asynchronous operation to

complete - B) To make a function run synchronously - C) To define a function as asynchronous - D) To return a Future 60. **What will the following code output?**

```
dart
void main() {
  var x = 5;
  var y = ++x;
  print(y);
}
```

- A) 6 - B) 5 - C) Error - D) 7 61. **How do you define a class constructor with optional parameters in Dart?** - A) `class MyClass { MyClass(int x = 0) {} }` - B) `class MyClass { MyClass([int x = 0]) {} }` - C) `class MyClass { MyClass({int x = 0}) {} }` - D) Both B and C 62. **Which of the following methods is used to combine two lists in Dart?** - A) `addAll()` - B) `merge()` - C) `combine()` - D) `concat()` 63. **What is the output of the following code?**

```
dart
void main() {
  var x = 5;
  var y = 10;
  var result = (x > y) ? 'x is greater' : 'y is greater';
  print(result);
}
```

- A) `x is greater` - B) `y is greater` - C) `x > y` - D) Error 64. **What type of value is returned by the `map()` function in Dart?** - A) A new list - B) A new set - C) A new map - D) A new iterable 65. **What does the `finally` block do in Dart?** - A) It always executes, regardless of exceptions. - B) It runs only when there is an exception. - C) It is used to catch exceptions. - D) It runs only when no exception occurs. 66. **What does the `Future` class represent in Dart?** - A) A delay before executing a function - B) A value that will be available at some point in the future - C) An operation that is completed in the future - D) Both B and C 67. **Which of the following can be used to handle errors in Dart?** - A) `try-catch` - B) `catch-finally` - C) `try-finally` - D) All of the above 68. **Which method is used to add an element to the beginning of a list in Dart?** - A) `insert()` - B) `add()` - C) `insertAt()` - D) `prepend()` 69. **Which of the following is a valid list in Dart?** - A) `[1, 2, 'three']` - B) `['one', 2, 3.5]` - C) `[true, 3, 4]` - D) All of the above 70. **Which of the following can be used for defining a constant variable in Dart?** - A) `final` - B) `const` - C) `static` - D) Both A and B 71. **What is the correct way to declare a Dart function that takes a variable number of positional parameters?** - A) `void func([int x, int y]) {}` - B) `void func(int x, int y) {}` - C) `void func({int x, int y}) {}` - D) `void func([int x, int`

`y, int z]) {}` 72. **Which of the following keywords is used to define an asynchronous method?** - A) `await` - B) `async` - C) `Future` - D) `asynchronous` 73. **Which of the following is the correct way to compare two strings in Dart?** - A) `str1 == str2` - B) `str1.compare(str2)` - C) `str1.equals(str2)` - D) `str1.isEqual(str2)` 74. **What will the following code output?**

```
dart
void main() {
  var x = 5;
  var y = 3;
  print(x ~/ y);
}
```

- A) `1` - B) `2` - C) `1.666` - D) `Error` 75. **What is the keyword used to declare a constant at the class level in Dart?** - A) `static` - B) `const` - C) `final` - D) Both B and C

18. Here are the answers to the Dart programming multiple-choice questions:

36. What is the output of the following Dart code?

dart

```
void main() {  
  var x = 'hello';  
  var y = x.substring(1, 4);  
  print(y);  
}
```

A) **ell**

37. What will the following code print?

dart

```
void main() {  
  var x = [1, 2, 3];  
  var y = x + [4, 5];  
  print(y);  
}
```

A) **[1, 2, 3, 4, 5]**

38. Which operator is used to combine strings in Dart?

B) **+**

39. Which of the following statements about Dart's **Map** is true?

D) None of the above

40. Which method is used to check if an element is present in a Dart list?

A) **contains()**

41. Which of the following is the correct way to initialize a list in Dart with values 1, 2, and 3?

A) `var list = [1, 2, 3];`

42. What is the default value of an uninitialized local variable in Dart?

A) `null`

43. Which of the following is used to define a function that returns a stream in Dart?

C) `Stream<void> function() { return Stream; }`

44. What is the result of the following Dart code?

```
dart
```

```
void main() {  
  var x = 10;  
  var result = x % 3;  
  print(result);  
}
```

A) `1`

45. What is the keyword used to import libraries in Dart?

A) `import`

46. Which of the following is used to define a constant list in Dart?

D) `All of the above`

47. What will be the output of the following code?

dart

```
void main() {  
  var set1 = {1, 2, 3};  
  var set2 = {3, 4, 5};  
  var result = set1.intersection(set2);  
  print(result);  
}
```

A) {3}

48. Which of the following is correct for defining a function with named parameters in Dart?

A) `void myFunc({int x, int y}) {}`

49. Which method is used to remove an element from a Dart set?

B) `remove()`

50. What is the result of the following Dart code?

dart

```
void main() {  
  var x = 3.14;  
  var y = x.toString();  
  print(y);  
}
```

A) 3.14

51. What is the purpose of the `Iterable` class in Dart?

B) To allow iterating over a collection of elements

52. Which of the following will result in an error?

B) `x = 'string';`

53. What does the `double` type represent in Dart?

D) Both A and B

54. How do you declare an asynchronous function in Dart?

C) `Future<void> function() async {}`

55. Which of the following collections is an unordered collection in Dart?

B) Set

56. Which statement will print `true` in Dart?

D) `print(3 <= 5);`

57. How do you declare a nullable type in Dart?

A) `String? name;`

58. Which of the following methods removes all elements from a Dart list?

A) `clear()`

59. What is the purpose of the `await` keyword in Dart?

A) To wait for an asynchronous operation to complete

60. What will the following code output?

```
dart
```

```
void main() {  
  var x = 5;  
  var y = ++x;  
  print(y);  
}
```

A) 6

61. How do you define a class constructor with optional parameters in Dart?

D) Both B and C

62. Which of the following methods is used to combine two lists in Dart?

A) `addAll()`

63. What is the output of the following code?

```
dart
```

```
void main() {  
  var x = 5;  
  var y = 10;  
  var result = (x > y) ? 'x is greater' : 'y is greater';  
  print(result);  
}
```

B) y is greater

64. What type of value is returned by the **map()** function in Dart?

D) A new iterable

65. What does the **finally** block do in Dart?

A) It always executes, regardless of exceptions.

66. What does the **Future** class represent in Dart?

D) Both B and C

67. Which of the following can be used to handle errors in Dart?

D) All of the above

68. Which method is used to add an element to the beginning of a list in Dart?

A) insert()

69. Which of the following is a valid list in Dart?

D) All of the above

70. Which of the following can be used for defining a constant variable in Dart?

D) Both A and B

71. What is the correct way to declare a Dart function that takes a variable number of positional parameters?

A) void func([int x, int y]) {}

72. Which of the following keywords is used to define an asynchronous method?

B) **async**

73. Which of the following is the correct way to compare two strings in Dart?

A) **str1 == str2**

74. What will the following code output?

```
dart
```

```
void main() {  
  var x = 5;  
  var y = 3;  
  print(x ~/ y);  
}
```

A) **1**

75. What is the keyword used to declare a constant at the class level in Dart?

B) **const**

19. Here are more Dart programming multiple-choice questions: 76.

****What is the result of the following Dart code?****

```
dart
void main() {
  var x = ['a', 'b', 'c'];
  x.addAll(['d', 'e']);
  print(x);
}
```

- A) ['a', 'b', 'c'] - B) ['a', 'b', 'c', 'd', 'e'] - C) ['d', 'e'] - D) **Error** 77. ****Which method is used to check whether a value exists in a Dart Set?**** - A) **contains()** - B) **find()** - C) **has()** - D) **check()** 78. ****How do you define a class with a private member in Dart?**** - A) **_myVar** - B) **private myVar** - C) **private_var** - D) **var _myVar** 79. ****Which operator is used to assert a condition in Dart?**** - A) **==** - B) **assert** - C) **?** - D) **&&** 80. ****What is the result of the following Dart code?****

```
dart
void main() {
  var x = 8;
  var result = (x == 8) ? 'True' : 'False';
  print(result);
}
```

- A) **True** - B) **False** - C) **8** - D) **Error** 81. ****Which of the following collections in Dart is ordered and can have duplicate elements?**** - A) **List** - B) **Set** - C) **Map** - D) **Iterable** 82. ****How do you define a function that returns a Future in Dart?**** - A) **Future myFunc() {}** - B) **void myFunc() async {}** - C) **Future<void> myFunc() {}** - D) **Future<void> myFunc() async {}** 83. ****What is the output of the following code?****

```
dart
void main() {
  var x = 5;
  x *= 2;
  print(x);
}
```

- A) **10** - B) **7** - C) **5** - D) **Error** 84. ****Which method is used to check the length of a string in Dart?**** - A) **length()** - B) **size()** - C) **length** - D) **count()** 85. ****What is the output of the following Dart code?****

```
dart
void main() {
  var x = 'Hello, ';
  var y = 'world!';
  print(x + y);
}
```

- A) Hello, world! - B) Hello world! - C) Hello, - D) world! 86. **Which of the following is used to convert a string to a number in Dart? - A) `int.parse()` - B) `parseInt()` - C) `convertToInt()` - D) `toInt()` 87. **How do you check whether a number is even in Dart? - A) `if (x.isEven)` - B) `if (x % 2 == 0)` - C) `if (x.isEven == true)` - D) Both A and B 88. **Which of the following represents a valid asynchronous Dart function? - A) `Future<int> function() async { return 1; }` - B) `void function() { return 1; }` - C) `async Future<int> function() { return 1; }` - D) `void function() async { return 1; }` 89. **What is the correct way to define a method inside a Dart class? - A) `class MyClass { void myMethod() {} }` - B) `class MyClass { function myMethod() {} }` - C) `method void myMethod() {}` - D) `class MyClass { void method myMethod() {} }` 90. **Which of the following is the correct way to define a class in Dart? - A) `class MyClass {}` - B) `class MyClass[] {}` - C) `class MyClass() {}` - D) `MyClass class {}` 91. **How do you define a function with a default value for a named parameter in Dart? - A) `void func({int x = 0}) {}` - B) `void func([int x = 0]) {}` - C) `void func(int x = 0) {}` - D) `void func(int x) { if (x == null) x = 0; }` 92. **Which method is used to get a sublist from a Dart list? - A) `subList()` - B) `slice()` - C) `sublist()` - D) `extract()` 93. **What is the result of the following Dart code?

```
dart
void main() {
  var x = 'Hello';
  x[0] = 'h';
  print(x);
}
```

- A) hello - B) Hello - C) Error - D) null 94. **What is the correct way to create a nullable variable in Dart? - A) `int? x;` - B) `int x = null;` - C) `int x;` - D) `x = null;` 95. **Which keyword is used to handle exceptions in Dart? - A) `catch` - B) `try` - C) `finally` - D) All of the above 96. **Which method is used to check if a string starts with a specific substring in Dart? - A) `startsWith()` - B) `beginWith()` - C) `matchStart()` - D) `beginsWith()` 97. **How do you define a function with a required parameter in Dart? - A) `void myFunc({required int x}) {}` - B) `void myFunc([int x]) {}` - C) `void myFunc(int x) {}` - D) `void myFunc(required int x) {}` 98. **Which of the following is the correct way to import a Dart package? - A) `import 'package:my_package';` - B) `include 'package:my_package';` - C) `use 'package:my_package';` - D) `import package:my_package;` 99. **What is the result of the following Dart code?

```
dart
void main() {
  var x = 3.14;
  print(x is int);
}
```

- A) true - B) false - C) Error - D) null 100. **How do you convert a Dart Future to a Stream?** - A) Future.toString() - B) Stream.fromFuture() - C) toString() - D) Stream.toFuture()

20. Here are the answers to the multiple-choice questions:

76. What is the result of the following Dart code?

dart

```
void main() {  
  var x = ['a', 'b', 'c'];  
  x.addAll(['d', 'e']);  
  print(x);  
}
```

B) ['a', 'b', 'c', 'd', 'e']

77. Which method is used to check whether a value exists in a Dart Set?

A) contains()

78. How do you define a class with a private member in Dart?

A) _myVar

79. Which operator is used to assert a condition in Dart?

B) assert

80. What is the result of the following Dart code?

dart

```
void main() {  
  var x = 8;  
  var result = (x == 8) ? 'True' : 'False';  
  print(result);  
}
```

A) True

81. Which of the following collections in Dart is ordered and can have duplicate elements?

A) **List**

82. How do you define a function that returns a **Future** in Dart?

D) **Future<void> myFunc() async {}**

83. What is the output of the following code?

dart

```
void main() {  
  var x = 5;  
  x *= 2;  
  print(x);  
}
```

A) **10**

84. Which method is used to check the length of a string in Dart?

C) **length**

85. What is the output of the following Dart code?

dart

```
void main() {  
  var x = 'Hello, '  
  var y = 'world!';  
  print(x + y);  
}
```

A) **Hello, world!**

86. Which of the following is used to convert a string to a number in Dart?

A) **int.parse()**

87. How do you check whether a number is even in Dart?

D) Both A and B

88. Which of the following represents a valid asynchronous Dart function?

A) `Future<int> function() async { return 1; }`

89. What is the correct way to define a method inside a Dart class?

A) `class MyClass { void myMethod() {} }`

90. Which of the following is the correct way to define a class in Dart?

A) `class MyClass {}`

91. How do you define a function with a default value for a named parameter in Dart?

A) `void func({int x = 0}) {}`

92. Which method is used to get a sublist from a Dart list?

C) `sublist()`

93. What is the result of the following Dart code?

```
dart
```

```
void main() {  
  var x = 'Hello';  
  x[0] = 'h';  
  print(x);  
}
```

C) **Error** (Strings are immutable in Dart)

94. What is the correct way to create a nullable variable in Dart?

A) `int? x;`

95. Which keyword is used to handle exceptions in Dart?

D) All of the above (You use `try`, `catch`, and `finally` together)

96. Which method is used to check if a string starts with a specific substring in Dart?

A) `startsWith()`

97. How do you define a function with a required parameter in Dart?

A) `void myFunc({required int x}) {}`

98. Which of the following is the correct way to import a Dart package?

A) `import 'package:my_package';`

99. What is the result of the following Dart code?

dart

```
void main() {  
  var x = 3.14;  
  print(x is int);  
}
```

B) `false` (3.14 is a `double`, not an `int`)

100. How do you convert a Dart `Future` to a `Stream`? - B) `Stream.fromFuture()`

21. Here are more Dart programming multiple-choice questions: 101. ****Which of the following data types is immutable in Dart?**** - A) `List` - B) `Set` - C) `Map` - D) `String` 102. ****Which method is used to remove all elements from a Dart `List`?** - A) `clear()` - B) `removeAll()` - C) `empty()` - D) `deleteAll()` 103. ****Which of the following operators is used for null-aware access in Dart?** - A) `?.` - B) `??` - C) `??=` - D) Both A and B 104. ****What is the output of the following Dart code?**

```
dart
void main() {
  var x = 10;
  print(x / 3);
}
```

- A) `3` - B) `3.0` - C) `3.3333` - D) `Error` 105. ****How do you define a private class in Dart?** - A) `class _MyClass {}` - B) `private class MyClass {}` - C) `class MyClass private {}` - D) `class MyClass; private` 106. ****Which of the following Dart collection types does not allow duplicate elements?** - A) `List` - B) `Set` - C) `Map` - D) `Queue` 107. ****What is the output of the following Dart code?**

```
dart
void main() {
  var list = [1, 2, 3];
  print(list.isEmpty);
}
```

- A) `true` - B) `false` - C) `null` - D) `Error` 108. ****Which of the following is a correct way to iterate over a Dart `List`?** - A) `for (var item in list) { }` - B) `for (var i = 0; i < list.length; i++) { }` - C) `list.forEach((item) { })` - D) All of the above 109. ****What is the purpose of the `async` keyword in Dart?** - A) To make a function return a `Future` - B) To define a method that runs asynchronously - C) To make a method non-blocking - D) All of the above 110. ****What will the following Dart code output?**

```
dart
void main() {
  var a = 5;
  var b = 2;
  print(a ~/ b);
}
```

- A) `2` - B) `2.5` - C) `3` - D) `Error` 111. ****Which of the following is used to specify the type of a function's return value in Dart?** - A) `->` - B) `return` - C) `Future` - D) The return type before the function name 112. ****Which method is used to find the index of an element in a Dart `List`?** - A) `indexOf()` - B) `findIndex()` - C) `getIndex()` - D) `positionOf()` 113. ****How can you create a `Map` with keys and values**

in Dart? - A) `var map = {'key1': 'value1', 'key2': 'value2'};` - B) `var map = new Map();` - C) `var map = Map.from({'key1': 'value1', 'key2': 'value2'});` - D) All of the above 114. **Which of the following will return `true` in Dart?

```
dart
var x = 'hello';
var y = 'hello';
```

- A) `x == y` - B) `x is y` - C) `x === y` - D) `x.equals(y)` 115. **How do you check if a `List` contains a specific element in Dart? - A) `contains()` - B) `find()` - C) `exists()` - D) `in()` 116. **Which of the following statements is correct for handling null in Dart? - A) `var x = null;` - B) `x = 5 ?? 3;` - C) `int? x = 5;` - D) Both A and C 117.

**What does the `await` keyword do in Dart? - A) Pauses the execution until the `Future` completes - B) Allows a function to execute asynchronously - C) Throws an error if a `Future` doesn't complete - D) Both A and B 118. **Which of the following Dart statements will cause an error?

```
dart
var x = 10;
var y = 'Hello';
print(x + y);
```

- A) `10Hello` - B) `Error` - C) `10 + Hello` - D) Both A and C 119. **How do you remove an element from a Dart `List`? - A) `delete()` - B) `remove()` - C) `removeAt()` - D) Both B and C 120. **What is the output of the following Dart code?

```
dart
void main() {
  var x = 0;
  while (x < 5) {
    x++;
    if (x == 3) continue;
    print(x);
  }
}
```

- A) `1 2 4 5` - B) `1 2 3 4 5` - C) `1 2 4` - D) `1 2 3` 121. **Which of the following is the correct way to declare an optional positional parameter in Dart? - A) `void func(int x, [int y]) {}` - B) `void func([int x, int y]) {}` - C) `void func({int x, int y}) {}` - D) `void func(int x, int y, {int z}) {}` 122. **How do you create an instance of a class in Dart? - A) `var obj = MyClass();` - B) `var obj = new MyClass();` - C) `var obj = MyClass.new();` - D) Both A and B 123. **What will the following Dart code output?

```
dart
void main() {
  var x = [1, 2, 3];
  var y = x;
  y[0] = 10;
  print(x);
}
```

- A) [1, 2, 3] - B) [10, 2, 3] - C) [10, 2, 3] (but y's modification doesn't affect x) - D) Error 124. **What does the `static` keyword do in Dart?** - A) Defines a class member that can be accessed without an instance of the class - B) Defines a constant variable - C) Defines an unmodifiable method - D) None of the above 125. **What is the purpose of the `main()` method in Dart?** - A) It is the entry point of the Dart application - B) It runs the first function of the program - C) It initializes the program - D) Both A and B

22. Here are the answers to the Dart programming multiple-choice questions:

- 101. Which of the following data types is immutable in Dart? - D) **String**
- 102. Which method is used to remove all elements from a Dart **List**? - A) **clear()**
- 103. Which of the following operators is used for null-aware access in Dart? - A) **?.**
- 104. What is the output of the following Dart code? `dart void main() { var x = 10; print(x / 3); }` - C) **3.3333**
- 105. How do you define a private class in Dart? - A) **class _MyClass {}**
- 106. Which of the following Dart collection types does not allow duplicate elements? - B) **Set**
- 107. What is the output of the following Dart code? `dart void main() { var list = [1, 2, 3]; print(list.isEmpty); }` - B) **false**
- 108. Which of the following is a correct way to iterate over a Dart **List**? - D) **All of the above**
- 109. What is the purpose of the **async** keyword in Dart? - D) **All of the above**
- 110. What will the following Dart code output? `dart void main() { var a = 5; var b = 2; print(a ~/ b); }` - A) **2**
- 111. Which of the following is used to specify the type of a function's return value in Dart? - D) **The return type before the function name**
- 112. Which method is used to find the index of an element in a Dart **List**? - A) **indexOf()**
- 113. How can you create a **Map** with keys and values in Dart? - D) **All of the above**
- 114. Which of the following will return **true** in Dart? `dart var x = 'hello'; var y = 'hello';` - A) **x == y**
- 115. How do you check if a **List** contains a specific element in Dart? - A) **contains()**
- 116. Which of the following statements is correct for handling null in Dart? - D) **Both A and C**
- 117. What does the **await** keyword do in Dart? - A) **Pauses the execution until the **Future** completes**

118. Which of the following Dart statements will cause an error? `dart var x = 10; var y = 'Hello'; print(x + y);` - **B) Error**
119. How do you remove an element from a Dart **List**? - **D) Both B and C**
120. What is the output of the following Dart code? `dart void main() { var x = 0; while (x < 5) { x++; if (x == 3) continue; print(x); } }` - **A) 1 2 4 5**
121. Which of the following is the correct way to declare an optional positional parameter in Dart? - **A) `void func(int x, [int y]) {}`**
122. How do you create an instance of a class in Dart? - **D) Both A and B**
123. What will the following Dart code output? `dart void main() { var x = [1, 2, 3]; var y = x; y[0] = 10; print(x); }` - **C) [10, 2, 3]** (but y's modification doesn't affect x)
124. What does the **static** keyword do in Dart? - **A) Defines a class member that can be accessed without an instance of the class**
125. What is the purpose of the **main()** method in Dart? - **D) Both A and B**

23. Here are more Dart programming multiple-choice questions with each option on a different line: 126. ****What is the output of the following Dart code?****

```
dart
void main() {
  var a = 'Hello';
  var b = 'World';
  var c = '$a, $b!';
  print(c);
}
```

- A) **Hello World!** - B) **Hello, World!** - C) **Hello** - D) **Error** 127.

****What will the following Dart code output?****

```
dart
void main() {
  var x = 7;
  print(x ~/ 2);
}
```

- A) **3** - B) **3.5** - C) **4** - D) **Error** 128. ****Which of the following is used to check the type of an object in Dart?**** - A) **instanceof** - B) **typeof** - C) **is** - D) **typeof** 129. ****How do you declare a constant in Dart?**** - A) **final** - B) **constant** - C) **const** - D) **static** 130. ****What will the following Dart code output?****

```
dart
void main() {
  var numbers = [1, 2, 3];
  numbers.add(4);
  print(numbers);
}
```

- A) **[1, 2, 3]** - B) **[1, 2, 3, 4]** - C) **Error** - D) **[1, 2, 4]** 131. ****What does the ??= operator do in Dart?**** - A) It checks for null and assigns a value if null - B) It assigns a value only if the current value is not null - C) It checks for equality and assigns a value - D) It does not perform any operation 132. ****Which of the following can be used to handle exceptions in Dart?**** - A) **try-catch** - B) **try-catch-finally** - C) **try-catch-throw** - D) All of the above 133. ****What is the correct syntax for defining a getter in Dart?**** - A) **int get property => value;** - B) **int property() => value;** - C) **int get property() { return value; }** - D) **int property() { return value; }** 134. ****What will the following Dart code output?****

```
dart
void main() {
  var x = [1, 2, 3];
  var y = x;
  y[0] = 4;
  print(x);
}
```

- A) [4, 2, 3] - B) [1, 2, 3] - C) Error - D) [4] 135. **How do you check if a variable is null in Dart?** - A) `if (x == null)` - B) `if (x is null)` - C) `if (x == 'null')` - D) `if (x = null)` 136. **Which of the following is used to define a set in Dart?** - A) `Set<int> numbers = {1, 2, 3};` - B) `Set<int> numbers = [1, 2, 3];` - C) `Set numbers = [1, 2, 3];` - D) `Set numbers = {1, 2, 3};` 137. **What is the output of the following Dart code?**

```
dart
void main() {
  var x = 5;
  var y = x == 5 ? 'Yes' : 'No';
  print(y);
}
```

- A) Yes - B) No - C) Error - D) 5 138. **What is the output of the following Dart code?**

```
dart
void main() {
  var numbers = [1, 2, 3];
  numbers.removeLast();
  print(numbers);
}
```

- A) [1, 2, 3] - B) [1, 2] - C) [2, 3] - D) Error 139. **Which method is used to convert a string to an integer in Dart?** - A) `int.parse()` - B) `parseInt()` - C) `toInt()` - D) `convertToInt()` 140. **Which of the following methods is used to find if an element exists in a Dart Set?** - A) `has()` - B) `contains()` - C) `find()` - D) `exists()` 141. **What will the following Dart code output?**

```
dart
void main() {
  var x = 5;
  var y = 5;
  print(x == y);
}
```

- A) true - B) false - C) 5 - D) Error 142. **How do you create a function that returns a Future in Dart?** - A) `Future myFunction() {}` - B) `Future<void> myFunction() async {}` - C) `void myFunction() async { return Future.value(); }` - D) `void`

`myFunction() { return Future<void>(); }` 143. **Which of the following methods is used to get the last element of a Dart `List`?** -

A) `last()` - B) `getLast()` - C) `last` - D) `getLastElement()` 144.

What is the correct way to define a named parameter in Dart? - A)

`void func(int x, {int y}) {}` - B) `void func(int x, [int y]) {}` - C) `void func(int x, int y) {}` - D) `void func(int x, int y, {int z}) {}` 145. **What will the following Dart code output?**

```
dart
void main() {
  var a = [1, 2, 3];
  var b = a;
  b[0] = 100;
  print(a);
}
```

- A) `[1, 2, 3]` - B) `[100, 2, 3]` - C) `[100]` - D) `Error` 146. **How do you create an asynchronous function in Dart?** - A) `Future<void> func() async {}` - B) `async void func() {}` - C) `func() async {`

`return 1; }` - D) `async func() {}` 147. **What does the `final` keyword do in Dart?** - A) Defines a constant value that cannot be modified after being initialized - B) Defines a variable that is immutable

- C) Makes a method final, preventing override - D) Both A and B 148.

- C) Makes a method final, preventing override - D) Both A and B 148.

What is the result of the following Dart code?

```
dart
void main() {
  var a = 10;
  var b = 3;
  print(a % b);
}
```

- A) `1` - B) `3` - C) `10` - D) `Error` 149. **Which of the following is used to check for null values in Dart?** - A) `??` - B) `== null` - C) `!= null` - D)

All of the above 150. **Which of the following is used to exit a loop in Dart?** - A) `break` - B) `exit` - C) `stop` - D) `end`

24. Here are the answers to your Dart programming multiple-choice questions:

126. What is the output of the following Dart code?

dart

```
void main() {  
  var a = 'Hello';  
  var b = 'World';  
  var c = '$a, $b!';  
  print(c);  
}
```

Answer: B) Hello, World!

127. What will the following Dart code output?

dart

```
void main() {  
  var x = 7;  
  print(x ~/ 2);  
}
```

Answer: A) 3

128. Which of the following is used to check the type of an object in Dart?

Answer: C) is

129. How do you declare a constant in Dart?

Answer: C) const

130. What will the following Dart code output?

dart

```
void main() {  
  var numbers = [1, 2, 3];  
  numbers.add(4);  
  print(numbers);  
}
```

Answer: B) [1, 2, 3, 4]

131. What does the `??=` operator do in Dart?

Answer: A) It checks for null and assigns a value if null

132. Which of the following can be used to handle exceptions in Dart?

Answer: D) All of the above

133. What is the correct syntax for defining a getter in Dart?

Answer: A) `int get property => value;`

134. What will the following Dart code output?

dart

```
void main() {  
  var x = [1, 2, 3];  
  var y = x;  
  y[0] = 4;  
  print(x);  
}
```

Answer: A) [4, 2, 3]

135. How do you check if a variable is null in Dart?

Answer: A) `if (x == null)`

136. Which of the following is used to define a set in Dart?

Answer: A) `Set<int> numbers = {1, 2, 3};`

137. What is the output of the following Dart code?

dart

```
void main() {  
  var x = 5;  
  var y = x == 5 ? 'Yes' : 'No';  
  print(y);  
}
```

Answer: A) Yes

138. What is the output of the following Dart code?

dart

```
void main() {  
  var numbers = [1, 2, 3];  
  numbers.removeLast();  
  print(numbers);  
}
```

Answer: B) [1, 2]

139. Which method is used to convert a string to an integer in Dart?

Answer: A) `int.parse()`

140. Which of the following methods is used to find if an element exists in a Dart Set?

Answer: B) `contains()`

141. What will the following Dart code output?

dart

```
void main() {  
  var x = 5;  
  var y = 5;  
  print(x == y);  
}
```

Answer: A) `true`

142. How do you create a function that returns a **Future** in Dart?

Answer: B) `Future<void> myFunction() async {}`

143. Which of the following methods is used to get the last element of a Dart **List**?

Answer: C) `last`

144. What is the correct way to define a named parameter in Dart?

Answer: A) `void func(int x, {int y}) {}`

145. What will the following Dart code output?

dart

```
void main() {  
  var a = [1, 2, 3];  
  var b = a;  
  b[0] = 100;  
  print(a);  
}
```

Answer: B) `[100, 2, 3]`

146. How do you create an asynchronous function in Dart?

Answer: A) `Future<void> func() async {}`

147. What does the **final** keyword do in Dart?

Answer: D) Both A and B

148. What is the result of the following Dart code?

dart

```
void main() {  
  var a = 10;  
  var b = 3;  
  print(a % b);  
}
```

Answer: A) 1

149. Which of the following is used to check for null values in Dart?

Answer: D) All of the above

150. Which of the following is used to exit a loop in Dart?

Answer: A) break

25. Here are more Dart programming multiple-choice questions: 151. ****Which of the following is the correct way to define a named constructor in Dart?**** - A) `class MyClass { MyClass() {} }` - B) `class MyClass { MyClass.named() {} }` - C) `class MyClass { constructor named() {} }` - D) `class MyClass { MyClass.name() {} }` 152. ****Which keyword is used to create an alias for a library in Dart?**** - A) `import as` - B) `use` - C) `include` - D) `from` 153. ****What is the output of the following Dart code?****

```
dart
void main() {
  var x = [1, 2, 3];
  var y = x;
  y[1] = 10;
  print(x);
}
```

- A) `[1, 10, 3]` - B) `[1, 2, 3]` - C) `Error` - D) `[10, 2, 3]` 154.

****What is the correct syntax to create a constant list in Dart?**** - A) `final List<int> list = [1, 2, 3];` - B) `const List<int> list = [1, 2, 3];` - C) `list = [1, 2, 3];` - D) `List<int> list = const [1, 2, 3];` 155. ****What will the following Dart code output?****

```
dart
void main() {
  var x = [1, 2, 3, 4, 5];
  var y = x.where((n) => n.isEven);
  print(y);
}
```

- A) `[2, 4]` - B) `[1, 3, 5]` - C) `[2, 4, 6]` - D) `Error` 156. ****What is the correct way to concatenate two strings in Dart?**** - A) `string1 + string2` - B) `string1.concat(string2)` - C) `string1.append(string2)` - D) `string1.join(string2)` 157.

****Which method is used to make a function asynchronous in Dart?**** - A) `async()` - B) `Future()` - C) `async` - D) `await` 158. ****How do you define a variable that can hold a nullable value in Dart?**** - A) `int x;` - B) `int? x;` - C) `int! x;` - D) `var x;` 159. ****What will the following Dart code output?****

```
dart
void main() {
  var x = 5;
  var y = x > 3 ? 'Yes' : 'No';
  print(y);
}
```

- A) `Yes` - B) `No` - C) `5` - D) `Error` 160. ****How do you perform type checking in Dart?**** - A) `if (x is int)` - B) `if (x typeOf int)` - C)

`if (x == int) - D) if (x.type == int)` 161. **What is the result of the following Dart code?**

```
dart
void main() {
  var x = 'Dart';
  print(x[1]);
}
```

- A) `a` - B) `D` - C) `rt` - D) `Error` 162. **Which of the following methods is used to add an element to a Dart `List`?** - A) `addElement()` - B) `push()` - C) `insert()` - D) `add()` 163. **What does the `break` statement do in Dart?** - A) Exits the current method - B) Exits a loop or switch statement - C) Skips the next iteration of the loop - D) Ends the program 164. **What is the output of the following Dart code?**

```
dart
void main() {
  var x = [10, 20, 30];
  var y = x;
  y.add(40);
  print(x);
}
```

- A) `[10, 20, 30]` - B) `[10, 20, 30, 40]` - C) `Error` - D) `[40, 10, 20, 30]` 165. **What will the following Dart code output?**

```
dart
void main() {
  var x = 'hello';
  var y = x.substring(1, 4);
  print(y);
}
```

- A) `hel` - B) `ell` - C) `hello` - D) `Error` 166. **Which of the following is used to define a set in Dart?** - A) `Set set = {1, 2, 3};` - B) `Set<int> set = {1, 2, 3};` - C) `List set = {1, 2, 3};` - D) `Set set = List<int>.from({1, 2, 3});` 167. **Which of the following is correct to create an empty `Map` in Dart?** - A) `var map = {};` - B) `var map = Map();` - C) `var map = <String, int>{};` - D) `var map = Map.empty();` 168. **How do you convert a string to a list in Dart?** - A) `string.split('')` - B) `string.toList()` - C) `string.convertToList()` - D) `string.splitList()` 169. **What will the following Dart code output?**

```
dart
void main() {
  var x = 10;
  var y = 2;
  print(x * y);
}
```

- A) 12 - B) 20 - C) 5 - D) Error 170. **What is the correct way to define a setter in Dart?** - A) `int set property(value) { _value = value; }` - B) `set property(int value) { _value = value; }` - C) `void set property(value) { _value = value; }` - D) `int set property(value) { return _value = value; }` 171. **Which of the following is used to handle errors in Dart?** - A) `try-except` - B) `catch-finally` - C) `try-catch-finally` - D) `error-catch` 172. **What will the following Dart code output?**

```
dart
void main() {
  var x = 10;
  var y = 5;
  print(x ~/ y);
}
```

- A) 2 - B) 2.0 - C) Error - D) 5 173. **What is the correct syntax to create an abstract class in Dart?** - A) `abstract class MyClass {}` - B) `class MyClass abstract {}` - C) `abstract MyClass {}` - D) `abstract MyClass() {}` 174. **Which of the following is used to merge two lists in Dart?** - A) `add()` - B) `addAll()` - C) `concat()` - D) `merge()` 175. **What is the output of the following Dart code?**

```
dart
void main() {
  var a = 5;
  var b = 10;
  var result = a > b ? 'greater' : 'lesser';
  print(result);
}
```

- A) greater - B) lesser - C) 10 - D) Error

26. Here are the answers to the provided Dart programming multiple-choice questions:

151. Which of the following is the correct way to define a named constructor in Dart?

B) `class MyClass { MyClass.named() {} }`

152. Which keyword is used to create an alias for a library in Dart?

A) `import as`

153. What is the output of the following Dart code?

dart

```
void main() {  
  var x = [1, 2, 3];  
  var y = x;  
  y[1] = 10;  
  print(x);  
}
```

A) `[1, 10, 3]`

154. What is the correct syntax to create a constant list in Dart?

B) `const List<int> list = [1, 2, 3];`

155. What will the following Dart code output?

dart

```
void main() {  
  var x = [1, 2, 3, 4, 5];  
  var y = x.where((n) => n.isEven);  
  print(y);  
}
```

A) `[2, 4]`

156. What is the correct way to concatenate two strings in Dart?

A) `string1 + string2`

157. Which method is used to make a function asynchronous in Dart?

C) `async`

158. How do you define a variable that can hold a nullable value in Dart?

B) `int? x;`

159. What will the following Dart code output?

dart

```
void main() {  
  var x = 5;  
  var y = x > 3 ? 'Yes' : 'No';  
  print(y);  
}
```

A) `Yes`

160. How do you perform type checking in Dart?

A) `if (x is int)`

161. What is the result of the following Dart code?

dart

```
void main() {  
  var x = 'Dart';  
  print(x[1]);  
}
```

A) `a`

162. Which of the following methods is used to add an element to a Dart `List`?

D) `add()`

163. What does the `break` statement do in Dart?

B) Exits a loop or switch statement

164. What is the output of the following Dart code?

dart

```
void main() {  
  var x = [10, 20, 30];  
  var y = x;  
  y.add(40);  
  print(x);  
}
```

B) [10, 20, 30, 40]

165. What will the following Dart code output?

dart

```
void main() {  
  var x = 'hello';  
  var y = x.substring(1, 4);  
  print(y);  
}
```

B) ell

166. Which of the following is used to define a set in Dart?

B) `Set<int> set = {1, 2, 3};`

167. Which of the following is correct to create an empty Map in Dart?

C) `var map = <String, int>{};`

168. How do you convert a string to a list in Dart?

A) `string.split('')`

169. What will the following Dart code output?

dart

```
void main() {  
  var x = 10;  
  var y = 2;  
  print(x * y);  
}
```

B) 20

170. What is the correct way to define a setter in Dart?

B) `set property(int value) { _value = value; }`

171. Which of the following is used to handle errors in Dart?

C) `try-catch-finally`

172. What will the following Dart code output?

dart

```
void main() {  
  var x = 10;  
  var y = 5;  
  print(x ~/ y);  
}
```

A) 2

173. What is the correct syntax to create an abstract class in Dart?

A) `abstract class MyClass {}`

174. Which of the following is used to merge two lists in Dart?

B) `addAll()`

175. What is the output of the following Dart code?

dart

```
void main() {  
    var a = 5;  
    var b = 10;  
    var result = a > b ? 'greater' : 'lesser';  
    print(result);  
}
```

B) lesser

27. Here are more Dart programming multiple-choice questions: 176.

****What is the correct way to create a mixin in Dart?**** - A) `mixin MyMixin {}` - B) `class MyMixin with {}` - C) `class MyMixin implements {}` - D) `mixin MyMixin implements {}` 177. ****What is the output of the following Dart code?****

```
dart
void main() {
  var x = 'Hello';
  var y = 'World';
  print('$x $y');
}
```

- A) `Hello World` - B) `'Hello World'` - C) `HelloWorld` - D) `Error` 178.

****What is the output of the following Dart code?****

```
dart
void main() {
  var list = [1, 2, 3];
  var result = list.map((x) => x * 2);
  print(result);
}
```

- A) `[2, 4, 6]` - B) `[(2), (4), (6)]` - C) `[2, 4, 6, 8]` - D) `Error`

179. ****Which keyword is used to define an abstract method in Dart?****

- A) `abstract` - B) `void` - C) `abstract void` - D) `abstract method`

180. ****How can you access the first element of a Dart list?**** - A)

`list[0]` - B) `list[1]` - C) `list.first()` - D) `list.first` 181.

****Which of the following is a correct way to define a method that**

returns a `Future` in Dart? - A) `Future<int> myFunction() {}` - B)

`void myFunction() async { return Future<int>(); }` - C)

`Future<int> myFunction() async {}` - D) `Future myFunction() => async;` 182. ****What will the following Dart code output?****

```
dart
void main() {
  var x = [1, 2, 3, 4, 5];
  var y = x.reversed;
  print(y);
}
```

- A) `[5, 4, 3, 2, 1]` - B) `Error` - C) `[1, 2, 3, 4, 5]` - D) `[5, 4,`

`3]` 183. ****How can you check if a string is empty in Dart?**** - A) `if (str.isEmpty)` - B) `if (str.isEmpty == true)` - C) `if (str == '')`

- D) `if (str.length == 0)` 184. ****What will the following Dart code output?****

```
dart
void main() {
  var x = [1, 2, 3, 4];
  var y = x.removeAt(2);
  print(y);
}
```

- A) 2 - B) 3 - C) 4 - D) Error 185. **Which of the following is the correct way to create a Stream in Dart?** - A) `Stream<int> stream = Stream.fromIterable([1, 2, 3]);` - B) `Stream<int> stream = Stream();` - C) `Stream<int> stream = Stream.of([1, 2, 3]);` - D) `Stream<int> stream = [1, 2, 3];` 186. **What is the output of the following Dart code?**

```
dart
void main() {
  var x = 5;
  var y = 10;
  print(x != y);
}
```

- A) true - B) false - C) 5 - D) 10 187. **What is the correct syntax to define a set of integers in Dart?** - A) `Set<int> numbers = {1, 2, 3};` - B) `Set<int> numbers = [1, 2, 3];` - C) `Set numbers = {1, 2, 3};` - D) `Set<int> numbers = <int>{1, 2, 3};` 188. **Which keyword is used to inherit a class in Dart?** - A) `extends` - B) `inherits` - C) `implement` - D) `super` 189. **What does the `await` keyword do in Dart?** - A) It pauses the execution of the program. - B) It executes a function asynchronously. - C) It waits for a `Future` to complete and returns the result. - D) It returns a value immediately without waiting. 190. **What is the output of the following Dart code?**

```
dart
void main() {
  var x = ['apple', 'banana', 'cherry'];
  print(x.contains('banana'));
}
```

- A) true - B) false - C) Error - D) banana 191. **What is the correct syntax to create a Map in Dart?** - A) `Map<int, String> map = {1: 'one', 2: 'two'};` - B) `Map map = {1: 'one', 2: 'two'};` - C) `Map<int, String> map = {1: 'one', 'two': 2};` - D) `Map<int, String> map = {1, 'one', 2, 'two'};` 192. **Which of the following is used to handle an error in Dart?** - A) `try-catch` - B) `catch-finally` - C) `try-catch-finally` - D) All of the above 193. **What will the following Dart code output?**

```
dart
void main() {
  var str = 'Hello';
  print(str.substring(1, 4));
}
```

- A) **e11** - B) **Hel** - C) **Hello** - D) **Error** 194. ****What is the output of the following Dart code?****

```
dart
void main() {
  var x = [5, 10, 15];
  var y = x.firstWhere((num) => num > 5);
  print(y);
}
```

- A) **5** - B) **10** - C) **Error** - D) **15** 195. ****What is the result of the following Dart code?****

```
dart
void main() {
  var x = 'Dart';
  var y = 'Language';
  print(x + ' ' + y);
}
```

- A) **Dart Language** - B) **Dart** - C) **Language** - D) **Error** 196. ****Which method is used to insert an element at the beginning of a Dart list?**** - A) **insertFirst()** - B) **insert()** - C) **addFirst()** - D) **insertAt()** 197. ****What is the output of the following Dart code?****

```
dart
void main() {
  var x = [10, 20, 30];
  var y = x.last;
  print(y);
}
```

- A) **30** - B) **10** - C) **20** - D) **Error** 198. ****What is the correct way to declare a nullable variable in Dart?**** - A) **int? x;** - B) **int x;** - C) **var x;** - D) **var? x;** 199. ****What does the **continue** statement do in Dart?** - A) Skips the current iteration of a loop and continues with the next iteration - B) Exits the current loop - C) Returns a value from the loop - D) Breaks the loop execution 200. ****Which of the following methods is used to split a string in Dart?** - A) **split()** - B) **divide()** - C) **cut()** - D) **separate()**

28. Here are the answers to the Dart programming multiple-choice questions:

176. What is the correct way to create a mixin in Dart?

A) `mixin MyMixin {}`

177. What is the output of the following Dart code?

dart

```
void main() {  
  var x = 'Hello';  
  var y = 'World';  
  print('$x $y');  
}
```

A) `Hello World`

178. What is the output of the following Dart code?

dart

```
void main() {  
  var list = [1, 2, 3];  
  var result = list.map((x) => x * 2);  
  print(result);  
}
```

A) `[2, 4, 6]`

179. Which keyword is used to define an abstract method in Dart?

C) `abstract void`

180. How can you access the first element of a Dart list?

A) `list[0]`

181. Which of the following is a correct way to define a method that returns a `Future` in Dart?

C) `Future<int> myFunction() async {}`

182. What will the following Dart code output?

dart

```
void main() {  
  var x = [1, 2, 3, 4, 5];  
  var y = x.reversed;  
  print(y);  
}
```

A) [5, 4, 3, 2, 1]

183. How can you check if a string is empty in Dart?

A) if (str.isEmpty)

184. What will the following Dart code output?

dart

```
void main() {  
  var x = [1, 2, 3, 4];  
  var y = x.removeAt(2);  
  print(y);  
}
```

B) 3

185. Which of the following is the correct way to create a **Stream** in Dart?

A) Stream<int> stream = Stream.fromIterable([1, 2, 3]);

186. What is the output of the following Dart code?

dart

```
void main() {  
  var x = 5;  
  var y = 10;  
  print(x != y);  
}
```

A) true

187. What is the correct syntax to define a set of integers in Dart?

A) `Set<int> numbers = {1, 2, 3};`

188. Which keyword is used to inherit a class in Dart?

A) `extends`

189. What does the `await` keyword do in Dart?

C) It waits for a `Future` to complete and returns the result.

190. What is the output of the following Dart code?

dart

```
void main() {  
  var x = ['apple', 'banana', 'cherry'];  
  print(x.contains('banana'));  
}
```

A) true

191. What is the correct syntax to create a Map in Dart?

A) `Map<int, String> map = {1: 'one', 2: 'two'};`

192. Which of the following is used to handle an error in Dart?

C) `try-catch-finally`

193. What will the following Dart code output?

dart

```
void main() {  
  var str = 'Hello';  
  print(str.substring(1, 4));  
}
```

A) e1l

194. What is the output of the following Dart code?

dart

```
void main() {  
  var x = [5, 10, 15];  
  var y = x.firstWhere((num) => num > 5);  
  print(y);  
}
```

B) 10

195. What is the result of the following Dart code?

dart

```
void main() {  
  var x = 'Dart';  
  var y = 'Language';  
  print(x + ' ' + y);  
}
```

A) Dart Language

196. Which method is used to insert an element at the beginning of a Dart list?

B) insert()

197. What is the output of the following Dart code?

```
dart
```

```
void main() {  
  var x = [10, 20, 30];  
  var y = x.last;  
  print(y);  
}
```

A) 30

198. What is the correct way to declare a nullable variable in Dart?

A) int? x;

199. What does the **continue** statement do in Dart?

A) Skips the current iteration of a loop and continues with the next iteration

200. Which of the following methods is used to split a string in Dart?

A) split()

ChatGPT can make mistakes. Check important info.