C++ TEST-17 (ENUMERATION)

Total points 50/50

STUDENT NAME *

VIVA

✓ **1. What does the keyword enum stand for in C++?** * 1/1

- ○ A) Enumerator
- ○ B) Enumeration
- ○ C) Enumerated data type
- ◉ D) Both B and C ✓

✓ **2. What is an enumeration in C++?** * 1/1

- ◉ A) A user-defined data type consisting of named integer constants ✓
- ○ B) A predefined integer type
- ○ C) A floating-point type
- ○ D) A loop

✓ **3. Which keyword is used to declare an enumeration? *** 1/1

- (●) A) enum ✓
- ( ) B) enumeration
- ( ) C) enumtype
- ( ) D) typedef

✓ **4. What is the default underlying data type of an enum in C++? *** 1/1

- ( ) A) float
- ( ) B) char
- (●) C) int ✓
- ( ) D) double

✓ **5. Which of the following correctly declares an enum? *** 1/1

- (●) A) enum Color { Red, Green, Blue }; ✓
- ( ) B) Color enum { Red, Green, Blue };
- ( ) C) enum { Red, Green, Blue } Color;
- ( ) D) enumeration Color (Red, Green, Blue);

✓ **6. By default, the value of the first enum constant is: *** 1/1

- ○ A) 1
- ◉ B) 0 ✓
- ○ C) Random
- ○ D) -1

✓ **7. If the first value of an enum is not assigned, what value will it have? *** 1/1

- ◉ A) 0 ✓
- ○ B) 1
- ○ C) Null
- ○ D) Random

✓ **8. What will be the value of Blue in this enum? *** 1/1

```
enum Color { Red = 5, Green, Blue };
```

- ○ A) 5
- ○ B) 6
- ◉ C) 7 ✓
- ○ D) 8

✓ **9. What is the output of the following code?** * 1/1

```
enum Day { Mon, Tue, Wed };

Day d = Tue;

cout << d;
```

- ○ A) Mon
- ○ B) Tue
- ◉ C) 1 ✓
- ○ D) 2

✓ **10. Can enumeration constants have the same value?** * 1/1

- ◉ A) Yes ✓
- ○ B) No

✓ **11. Can we assign values manually to enum constants?** * 1/1

- ◉ A) Yes ✓
- ○ B) No

✓ **12. What is the scope of enum members in C++ (before C++11)?** * 1/1

- (●) A) Global by default ✓
- ( ) B) Local
- ( ) C) Protected
- ( ) D) Private

✓ **13. What new feature was introduced in C++11 for enums?** * 1/1

- (●) A) Strongly typed enums (enum class) ✓
- ( ) B) Automatic conversion to strings
- ( ) C) Nested enums
- ( ) D) None

✓ **14. Which is the correct syntax for an enum class?** * 1/1

- (●) A) enum class Color { Red, Green, Blue }; ✓
- ( ) B) class enum Color { Red, Green, Blue };
- ( ) C) enum Color class { Red, Green, Blue };
- ( ) D) enumclass Color { Red, Green, Blue };

✓ **15. What is the main difference between enum and enum class?** * 1/1

- (●) A) enum class has scoped and type-safe enumerators ✓
- ( ) B) enum class is not type-safe
- ( ) C) enum allows same names in different enums
- ( ) D) Both are identical

✓ **16. Can we use enum inside a class?** * 1/1

- (●) A) Yes ✓
- ( ) B) No

✓ **17. Can we define an enum inside a namespace?** * 1/1

- (●) A) Yes ✓
- ( ) B) No

✓ **18. What is the default value of an uninitialized enum variable?** * 1/1

- ( ) A) 0
- ( ) B) Undefined
- ( ) C) Random
- (●) D) First enumerator value ✓

✓ **19. Which of the following is valid?** * 1/1

- ○ A) enum { A, B, C };
- ○ B) enum Color { Red, Green };
- ◉ C) Both ✓
- ○ D) None

✓ **20. Which of the following can hold duplicate names across enums?** * 1/1

- ◉ A) enum class ✓
- ○ B) normal enum

✓ **21. Which of the following allows implicit conversion to int?** * 1/1

- ◉ A) enum ✓
- ○ B) enum class

✓ **22. Which of the following does NOT allow implicit conversion to int?** * 1/1

- ○ A) enum
- ◉ B) enum class ✓

✓ **23. Can we use arithmetic operations on enum values?** * 1/1

- (●) A) Yes ✓
- ( ) B) No

✓ **24. What will be the value of Wed in this enum?** * 1/1

enum Days { Mon = 10, Tue, Wed };

- ( ) A) 10
- ( ) B) 11
- (●) C) 12 ✓
- ( ) D) 13

✓ **25. What will be the output of the following code?** * 1/1

enum Test { A = 2, B, C = 10, D };

cout << D;

- ( ) A) 3
- ( ) B) 10
- (●) C) 11 ✓
- ( ) D) 12

✓ **26. Can enums have duplicate names in the same scope?** * 1/1

- (●) A) No ✓
- ( ) B) Yes

✓ **27. Can an enum be forward-declared in C++11?** * 1/1

- (●) A) Yes ✓
- ( ) B) No

✓ **28. Which is correct forward declaration?** * 1/1

- ( ) A) enum Color;
- ( ) B) enum class Color;
- (●) C) Both ✓

✓ **29. Can we specify the underlying type of enum in C++11?** * 1/1

- (●) A) Yes ✓
- ( ) B) No

✓ **30. Which syntax specifies the underlying type?** * 1/1

- (●) A) enum Color : char { Red, Blue }; ✓
- ( ) B) enum : char Color { Red, Blue };
- ( ) C) enum(Color, char) { Red, Blue };
- ( ) D) enum Color(char) { Red, Blue };

✓ **31. What happens if we assign values to enum constants in random order?** *1/1

- (●) A) Compiler allows it ✓
- ( ) B) Compiler error

✓ **32. What is the output?** * 1/1

```
enum Alpha { X=5, Y=2, Z };
cout << Z;
```

- ( ) A) 2
- (●) B) 3 ✓
- ( ) C) 5
- ( ) D) 6

✓ **33. Can enums contain duplicate constant values?** * 1/1

- (●) A) Yes ✓
- ( ) B) No

✓ **34. Which of the following can be compared using ==?** * 1/1

- ( ) A) enum
- ( ) B) enum class
- (●) C) Both ✓

✓ **35. What will be printed?** * 1/1

```
enum Fruit { Apple, Mango = 3, Banana };

cout << Banana;
```

- ( ) A) 2
- ( ) B) 3
- (●) C) 4 ✓
- ( ) D) 1

✓ **36. Can we use enum constants in switch statements?** * 1/1

- (●) A) Yes ✓
- ( ) B) No

✓ **37. Which of these is true about enum class?** * 1/1

- (●) A) Enum members are accessed with scope resolution operator :: ✓
- ( ) B) They are implicitly convertible to int
- ( ) C) Both
- ( ) D) None

✓ **38. What is printed by this code?** * 1/1

```
enum class Light { Red, Green, Blue };

cout << (int)Light::Green;
```

- ( ) A) 0
- (●) B) 1 ✓
- ( ) C) 2
- ( ) D) Error

✓ **39. Can enums be declared inside functions?** * 1/1

- (●) A) Yes ✓
- ( ) B) No

✓ **40. Can we have an array of enum type?** * 1/1

- (●) A) Yes ✓
- ( ) B) No

✓ **41. Can enums be used as return types in functions?** * 1/1

- (●) A) Yes ✓
- ( ) B) No

✓ **42. Can we assign a floating-point value to an enum constant?** * 1/1

- (●) A) No, only integers are allowed ✓
- ( ) B) Yes

✓ **43. What is the output?** * 1/1

```
enum Data { A=3, B=5, C=B+2 };
cout << C;
```

- ( ) A) 5
- (●) B) 7 ✓
- ( ) C) 2
- ( ) D) 3

✓ **44. What happens if we print an enum variable directly with cout? *** 1/1

- (●) A) It prints the integer value ✓
- ( ) B) It prints the name
- ( ) C) It gives error

✓ **45. Can an enum be empty? *** 1/1

- (●) A) No ✓
- ( ) B) Yes

✓ **46. Can we assign enum values outside its defined range? *** 1/1

- (●) A) Yes, using static_cast or int assignment ✓
- ( ) B) No

✓ **47. Which C++ version introduced enum class? *** 1/1

- ( ) A) C++03
- (●) B) C++11 ✓
- ( ) C) C++14
- ( ) D) C++98

✓ **48. Can two different enum classes have same enumerator names?** * 1/1

- (●) A) Yes ✓
- ( ) B) No

✓ **49. What will happen?** * 1/1

```
enum class Shape { Circle, Square };

Shape s = Shape::Circle;

cout << s;
```

- ( ) A) Prints 0
- ( ) B) Prints Circle
- (●) C) Compile error ✓
- ( ) D) Runtime error

✓ **50. Which of the following statements is TRUE about enumeration in C++?** *1/1

- ( ) A) Enums provide meaningful names to integer constants
- ( ) B) Enums can only hold integer values
- ( ) C) Enums improve readability and maintainability
- (●) D) All of the above ✓