

**SULIT**



**UNIVERSITI TUN HUSSEIN ONN MALAYSIA**

**PEPERIKSAAN AKHIR  
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JANGKA MASA : 2 JAM  
ARAHAN : JAWAB SEMUA SOALAN  
PADA KERTAS SOALAN DAN  
HENDAKLAH DIKEMBALIKAN  
SEMULA  
NAMA : \_\_\_\_\_  
NO. MATRIK : \_\_\_\_\_

**JANGAN BUKA KERTAS SOALAN SEHINGGA DIBERITAHU**

KERTAS SOALAN INI MENGANDUNGI 12 MUKA SURAT

**SULIT**

**SECTION A [25 marks]**

- Q1 The process of application statements executing one after another in the order in which they are written is called \_\_\_\_\_
- A. transfer of control
  - B. sequential execution
  - C. workflow
  - D. selection statement
- Q2 The \_\_\_\_\_ symbol is not a C++ operator
- A. \*
  - B. !=
  - C. <>
  - D. %
- Q3 `if ... else` is a \_\_\_\_\_-selection statement.
- A. single
  - B. double
  - C. triple
  - D. nested
- Q4 Placing an `if ... else` statement inside another `if ... else` statement is an example of \_\_\_\_\_.
- A. nesting `if ... else` statements
  - B. stacking `if ... else` statements
  - C. creating sequential `if ... else` statements
  - D. putting `if ... else` statements
- Q5 The body of an `if` statement that contains multiple statements is placed in \_\_\_\_\_.
- A. ()
  - B. []
  - C. <>
  - D. {}

- Q6 A variable of the `boolean` type can be assigned either the value \_\_\_\_\_ or the value \_\_\_\_\_ .
- A. true, false
  - B. on, off
  - C. one, zero
  - D. yes, no
- Q7 The \_\_\_\_\_ operator is used to ensure that two conditions are both true .
- A. ^
  - B. &&
  - C. !
  - D. ||
- Q8 The condition *expression1* || *expression2* evaluates to false when \_\_\_\_\_ .
- A. *expression1* is true and *expression2* is false
  - B. *expression1* is false and *expression2* is true
  - C. both *expression1* and *expression2* is true
  - D. both *expression1* and *expression2* are false
- Q9 The condition *!expression1* && *expression2* evaluates to true when \_\_\_\_\_ .
- A. *expression1* is true and *expression2* is false
  - B. *expression1* is false and *expression2* is true
  - C. both *expression1* and *expression2* are true
  - D. both *expression1* and *expression2* are false
- Q10 The body of a `while` statement executes \_\_\_\_\_ .
- A. at least once
  - B. never
  - C. while its condition remains true
  - D. while its condition remains false

- Q11 The `do ... while` statement tests the loop-continuation condition \_\_\_\_\_.
- A. after the loop body executes
  - B. before the loop body executes
  - C. both of the above
  - D. neither of the above
- Q12 An infinite loop occurs when the loop-continuation condition is a `do ... while` statement \_\_\_\_\_.
- A. never becomes true
  - B. never becomes false
  - C. is false
  - D. is tested repeatedly
- Q13 The \_\_\_\_\_ operator converts its operand to the type specified in parentheses.
- A. type
  - B. converter
  - C. convert
  - D. cast
- Q14 The value before the first semicolon in a `for` statement typically specifies the \_\_\_\_\_.
- A. initial value of the counter variable
  - B. final value of the counter variable
  - C. number of times the statement increments
  - D. number of times the statement iterates
- Q15 Which of the following is an appropriate `for` loop that prompts the following sequence of values: 25, 20, 15, 10, 5.
- A. `for ( int i = 5 ; i <= 25 ; i += 5 )`
  - B. `for ( int i = 25 ; i >= 5 ; i -= 5 )`
  - C. `for ( int i = 5 ; i <= 25 ; i -= 5 )`
  - D. `for ( int i = 25 ; i >= 5 ; i += 5 )`

Q16 Which of the following statements describes what the following for loop does?

```
for ( int i = 81 ; i <= 102 ; i++ )
```

- A. Display a value *i* from 81 to 102 in increments of 1.
- B. Display a value *i* from 81 to 102 in increments of 0.
- C. Display a value *i* from 102 to 81 in increments of 1.
- D. Display a value *i* from 102 to 81 in increments of 0.

Q17 switch is a \_\_\_\_\_-selection statement.

- A. single
- B. double
- C. triple
- D. multiple

Q18 \_\_\_\_\_ is a valid case label.

- A. case: 'A'
- B. case: "A"
- C. case 'A':
- D. case "A":

Q19 The correct syntax for a default case is \_\_\_\_\_.

- A. default case
- B. default
- C. default case:
- D. default:

Q20 Which of the following function calls returns the value 10?:

- A. min (9.0, 10.0)
- B. sqrt (100.0)
- C. max (10.0, 11.0)
- D. min (10.0, 9.0)

- Q21 The \_\_\_\_\_ statement in a function sends a value back to the calling function.
- A. return
  - B. back
  - C. end
  - D. value
- Q22 Variables that are defined within a function are called \_\_\_\_\_ .
- A. global variables
  - B. local variables
  - C. class variables
  - D. hidden variables
- Q23 To create an array initializer to specify the initial values of the elements in the array, use the \_\_\_\_\_ symbols.
- A. [ and ]
  - B. < and >
  - C. ( and )
  - D. { and }
- Q24 The first element in every array is the \_\_\_\_\_ .
- A. zeroth element
  - B. first element
  - C. smallest value in the array
  - D. maximum value in the array
- Q25 \_\_\_\_\_ creates an int array of two rows and five columns.
- A. `int [ 2 ][ 5 ];`
  - B. `int intArray [ 5 ][ 2 ];`
  - C. `int intArray [ 2 ][ 5 ];`
  - D. `int [ 5 ][ 2 ];`

**SECTION B [55 marks]**

Q1 What are the TWO rules in using switch case statement? (4 marks)

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Q2 What does the following function define? (4 marks)

```
void abcd (int);
```

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Q3 What are the THREE advantages of using functions to modularise a program? (6 marks)

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Q4 Write an `if` statement that prints “too many” if the variable `count` exceeds 100.  
(2 marks)

Q5 Write a `for` statement that print the following sequence of values:  
20, 14, 8, 2, -4, -10  
( 4 marks)

Q6 Using single array, prompt the user (“Enter a temperature”) to enter 12 values of floating array `monthlyTemperatures [ 12 ]` from the keyboard.  
( 5 marks)

Q7 Write TWO different methods to initialise character array `vowel` with the string of vowels `AEIOU`.  
(4 marks)



Q8 What is the output for each of the following while loop program segment? (6 marks)

```
...
sum = 0.0;
x = 0.8;

while(x <= 1.1 + 0.0001)
{
    cout << x << endl;
    sum = sum + x;
    x = x + 0.1;
}
cout << "Total is " << sum << endl;

...
```

Q9 What is the output for each of the following function program segment?

(6 marks)

```
void f( );
void g( );
int x = 11;

int main( ){
    int x = 22;
    {
        int x = 33;
        cout << "In block inside main ( ) : x = " << x *3 << endl;
    }
    cout << "In main ( ) : x = " << x << endl;
    f ( );
    g ( );
    {
        cout << "In block inside main ( ) : x = " << x << endl;
    }
    return 0;
} //end of main ( )

void f ( )
{
    cout << "In f ( ) : x = " << x+1 << endl;
    int x = 44;
    cout << "In f ( ) : x = " << x << endl;
} //end of f( )

void g ( )
{
    cout << "In g ( ) : x = " << x << endl;
} //end of g( )
```

Q10 What is the output for each of the following 2-dimensional array program segment?

(4 marks)

```
int my_array [4] [4], index1, index2;

for (index1 = 0; index1 < 4; index1++)
    for (index2 = 0; index2 < 4; index2++)
        my_array [index1] [index2] = index2;

for (index1 = 0; index1 < 4; index1++)
{
    for (index2 = 0; index2 < 4; index2++)
        cout << my_array [index1] [index2] << " ";
    cout << endl;
}
```

**SECTION C [20 marks]**

Q1 Write a complete C++ Programming Language using a `switch` statement to display Capital Letter A to Capital Letter E.

*Example: If user input is Capital Letter "A", then the output will display "Alphabet A":*