

SULIT



**BAHAGIAN PEPERIKSAAN DAN PENILAIAN
JABATAN PENDIDIKAN POLITEKNIK
KEMENTERIAN PENDIDIKAN TINGGI**

JABATAN TEKNOLOGI MAKLUMAT & KOMUNIKASI

PEPERIKSAAN AKHIR

SESI JUN 2016

DFC2073: PROGRAMMING FUNDAMENTALS

TARIKH : 03 NOVEMBER 2016

MASA : 8.30 AM - 10.30 AM (2 JAM)

Kertas ini mengandungi **DUA PULUH ENAM (26)** halaman bercetak.

Bahagian A: Objektif (30 soalan)

Bahagian B: Struktur (2 soalan)

Dokumen sokongan yang disertakan : Tiada

JANGAN BUKA KERTAS SOALAN INI SEHINGGA DIARAHKAN

(CLO yang tertera hanya sebagai rujukan)

SULIT

SECTION B : 55 MARKS**BAHAGIAN B : 55 MARKAH****INSTRUCTION:**

This section consists of **TWO (2)** structured questions. Answer **ALL** questions.

ARAHAN:

Bahagian ini mengandungi DUA (2) soalan berstruktur. Jawab semua soalan.

QUESTION 1**SOALAN 1**

CLO1
C1

(a) List **TWO (2)** types of error in programming.

Senaraikan DUA (2) jenis ralat di dalam pengaturcaraan.

[2marks]

[2 markah]

CLO1
C1

(b) Define the meaning of variable.

Nyatakan definisi bagi pembolehubah.

[2marks]

[2 markah]

CLO1
C2

(c) Explain **THREE (3)** structure of loops statement.

Terangkan TIGA (3) struktur penyataan pengulangan.

[3 marks]

[3 markah]

CLO2
C2

(d) Explain **THREE (3)** reason why variables are important in programming.

Terangkan TIGA (3) alasan mengapa pembolehubah penting di dalam pengaturcaraan.

[3 marks]

[3 markah]

CLO2
C2(e) Determine the evaluation for expression below whether it is **TRUE** or **FALSE**.*Tentukan penilaian untuk frasa berikut sama ada **BETUL** atau **SALAH**.*(i) $(3 == 2) \ \&\& \ (2 > 4)$ (ii) $(10 == 10) \ || \ (2 > 4)$ (iii) $((b=2) == 3)$ (iv) $(8+4 > 6*2)$

[4 marks]

[4 markah]

CLO2
C1(f) State **TWO (2)** differences between continue and break in C++.*Nyatakan **DUA (2)** perbezaan antara continue dan break di dalam C++.*

[4 marks]

[4 markah]

CLO3
C1(g) Identify **THREE (3)** errors that occur in the following program :*Kenalpasti **TIGA (3)** ralat yang berlaku di dalam program berikut :*

```
#include <iostream>
using namespace std;

int main ()
{
    // Variable definition:
    int a; b;
    int c;
    float f;

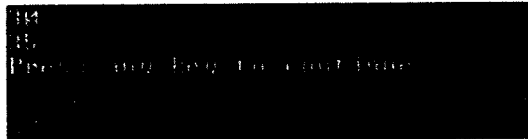
    // actual initialization
    a = 10;
    b = 20;
    c = a + b;

    cout >> c << endl ;

    f = 70.0/2;
    cout << F << endl ;

    return 0;
}
```

Output :

[3 marks]
[3 markah]

CLO3
C1(h) Identify the correct statement for **X** and **Y** based on the program below.*Tentukan pernyataan yang betul bagi X dan Y berdasarkan aturcara di bawah.*

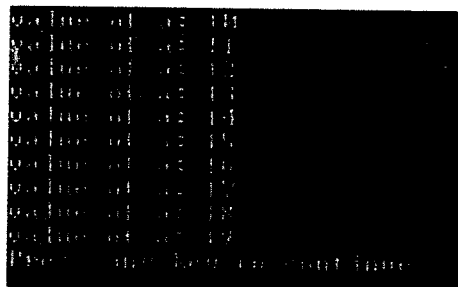
```
#include<iostream>
using namespace std;

int main()
{
    //Local variable declaration
              X          

    //Do loop execution
    do
    {
        cout<<"Value of a : "<<a<<endl;
                  Y          
    } while (a<20);

    return 0;
}
```

Output:



```
Value of a : 1
Value of a : 2
Value of a : 3
Value of a : 4
Value of a : 5
Value of a : 6
Value of a : 7
Value of a : 8
Value of a : 9
Value of a : 10
Value of a : 11
Value of a : 12
Value of a : 13
Value of a : 14
Value of a : 15
Value of a : 16
Value of a : 17
Value of a : 18
Value of a : 19
Press any key to continue . . .
```

[4 marks]
[4 markah]

QUESTION 2
SOALAN 2CLO1
C1

(a) Describe the following components of array:

Jelaskan komponen tatasusunan berikut:

(i) Index

(ii) Element

(iii) Size

[3 marks]

[3 markah]

CLO1
C1

(b) (i) Define a function.

Berikan definisi fungsi.

[1 marks]

[1 markah]

(ii) List **TWO (2)** types of function.*Senaraikan **DUA(2)** jenis fungsi*

[2 marks]

[2 markah]

CLO1
C2(c) Based on Figure B1, state which **LINE** is referring to the following:*Berdasarkan Rajah B1, nyatakan **BARIS** yang merujuk kepada berikut:*

Line 1	#include <iostream.h>
Line 2	int square (int);
Line 3	int main()
Line 4	{
Line 5	for (int x = 1; x <= 10; x++)
Line 6	cout << square(x) << " ";
Line 7	cout << endl;
Line 8	return 0;
Line 9	}
Line 10	
Line 11	int square (int y)
Line 12	{
Line 13	return y * y;
Line 14	}
Line 15	

Figure B1 / Rajah B1

(i) Function header

(ii) Function prototype /declaration

[2 marks]

[2 markah]

CLO2
C1(d) State **ONE (1)** example to declare the following:*Nyatakan **SATU (1)** contoh pengisytiharan untuk yang berikut:*

(i) One dimensional array

(ii) Pointer

(iii) Structure.

[3 marks]

[3 markah]

CLO2
C2

(e) Write C++ statement for the following:

*Tuliskan pernyataan C++ bagi yang berikut:*i. Declare array name **Student** of **6 elements** of **int data type**.*Isytihar tatasusunan **Student** yang mempunyai **6 elemen jenis data int**.*

[2 marks]

[2 markah]

CLO2
C3

(f) Identify the outputs for Figure B2 shown below.

Kenalpasti output bagi Rajah B2 di bawah.

```
#include <iostream.h>
int test (int a, int &b);

int main ()
{
    int a=9, b=4;
    cout<<"The value of a:"<<a<<" and b:"<<b<<endl;
    test(a,b);
}

int test(int a, int &b)
{

    a++;
    b--;
    cout<<"The value of a:"<<a<<" and b:"<<b<<endl;

    return 0;
}
```

Figure B2 / Rajah B2

[4 marks]

[4 markah]

CLO3
C1

(g) Based on Figure B3, fill in the blanks with the correct answer.

Berdasarkan Rajah B3, isikan tempat kosong dengan jawapan yang betul.

```
#include <iostream.h>
void main()
{
    char letter[    i   ] = {'A', 'B', 'C', 'D', 'E', 'F', 'G', 'H', 'I', 'J'};
    for ( int i = 0; i <10; i++){
        cout <<    ii   
        cout << endl;}
}
```

Figure B3/Rajah B3

[2 marks]

[2 markah]

CLO3
C3

(h) Design and write a program that declares an **integer array called lists [5]**. Initialize it to some values. Next, declare **two pointers variable(one, two)**. Then **assign the address of the lists variable array to the pointer one**. Next **assign the address stored in pointer one to the two**. Lastly, **display the value of lists variable array, one and two variable**.

*Tulis program yang mengisytiharkan **integer array dipanggil lists [5]**. Berikan sebarang nilai kepada element bagi integer array lists[5]. Kemudian, isytihar **dua penunding** iaitu **one** dan **two** serta umpukkan **alamat pembolehubah tatasusunan lists** kepada **penunding one**. Seterusnya tentukan **alamat yang disimpan dalam penunding one** kepada **penunding two**. Tunjukkan **nilai pembolehubah tatasusunan lists, one dan two**.*

[5 marks]

[5 markah]