

9

SULIT



**BAHAGIAN PEPERIKSAAN DAN PENILAIAN
JABATAN PENDIDIKAN POLITEKNIK DAN KOLEJ KOMUNITI
KEMENTERIAN PENDIDIKAN MALAYSIA**

JABATAN TEKNOLOGI MAKLUMAT & KOMUNIKASI

PEPERIKSAAN AKHIR

SESI JUN 2018

DFT4024: OBJECT ORIENTED PROGRAMMING

TARIKH : 01 NOVEMBER 2018

MASA : 8.30 PAGI - 10.30 PAGI (2 JAM)

Kertas ini mengandungi **DUA PULUH LIMA (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

CLO1
C1

- (a) Identify object, attributes and behavior in Figure B1.

Kenalpasti objek, atribut dan kelakuan dalam Rajah B1.

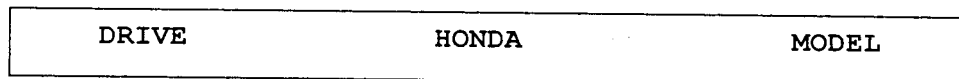


Figure B1 / Rajah B1

[3 marks]
[3 markah]

CLO1
C3

- (b) Apply with **CORRECT** element of class diagram in Figure B2.

*Isikan tempat kosong dengan element kelas diagram yang **BETUL** di Rajah B2.*

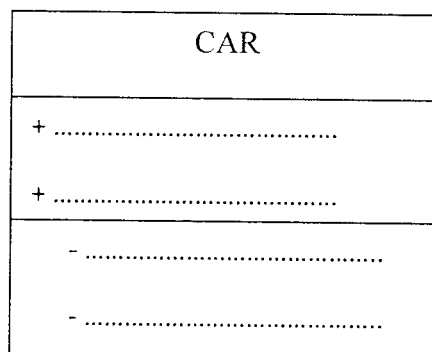


Figure B2 / Rajah B2

[2 marks]
[2 markah]

CLO1
C1

- (c) i. Describe the meaning of class.

Jelaskan maksud kelas.[2 marks]
[2 markah]

- ii. State down
- THREE (3)**
- types of a class component.

*Nyatakan **TIGA (3)** jenis komponen kelas.*[3 marks]
[3 markah]CLO1
C1

- (d) Name
- TWO (2)**
- example for anatomy of Java program.

*Namakan **DUA (2)** contoh anatomi program Java.*[2 marks]
[2 markah]CLO1
C3

- (e) Apply the
- CORRECT**
- method in String class to combine two substring in Figure B3.

*Gunakan metod yang **BETUL** di dalam kelas String untuk menggabungkan dua ayat dalam Rajah B3.*

```
String subString1 = " I Love ";  
String subString2 = " Malaysia ";
```

Figure B3 / Rajah B3

[3 marks]
[3 markah]CLO2
C3

- (f) Use a constructor to rewrite the following program in Figure B4.

Gunakan konstruktor untuk menulis balik program berdasarkan Rajah B4.

```
class Book {  
    public static void main(String args[]) {  
        Book b1 = new Book ("OOP", "Salehah", 60);  
    }  
}
```

Figure B4 / Rajah B4

[5 marks]
[5 markah]

CLO3
C3

- (g) Write a simple program using “for” loop to print the output as shown in Figure B5.
Tuliskan program ringkas menggunakan gelung “for” untuk memaparkan output seperti Rajah B5.

```
Output :  
  
This is Subject 1  
This is Subject 2  
This is Subject 3
```

Figure B5 / Rajah B5

[5 marks]
[5 markah]

QUESTION 2

SOALAN 2

CLO1
C2

- (a) Based on the statement in Figure B6, explain the uses of 'this' keyword.

Berdasarkan pernyataan dalam Rajah B6, terangkan kegunaan kata kunci 'this'.

'this' is a self-reference to the current instance of the class

Figure B6 / Rajah B6

[3 marks]

[3 markah]

CLO1
C3

- (b) Illustrate a diagram for **THREE (3)** type of the inheritance.

Lukiskan diagram bagi TIGA (3) jenis perwarisan.

[4 marks]

[4 markah]

CLO2
C2

- (c) Write a segment code to define base class named Ball with attribute of the diameter and weight.

Tulis kod segmen untuk mendefinisikan kelas asas bernama Ball bersama atribut diameter dan weight.

[5 marks]

[5 markah]

CLO2
C3

(d) Interpret the output of the following program in Figure B7.

Tafsirkan output bagi program berikut di Rajah B7.

```
abstract class A{
    abstract void firstMethod();
    void secondMethod(){
        System.out.println("SECOND");
        firstMethod();
    }
}
abstract class B extends A{
    void firstMethod(){
        System.out.println("FIRST");
        thirdMethod();
    }
    abstract void thirdMethod();
}
class C extends B{
    void thirdMethod(){
        System.out.println("THIRD");
    }
}
public class MainClass{
    public static void main(String[] args){
        C c = new C();
        c.firstMethod();
        c.secondMethod();
        c.thirdMethod();
    }
}
```

Figure B7 / Rajah B7

[6 marks]
[6 markah]

CLO2
C4

(e) Answer the question based on the given coding.

Jawab soalan berdasarkan kod yang diberikan.

- (i) Ali has written a code as shown in Figure B8. However, it has compile error. Identify the mistake that has been done.

Ali telah menulis kod di Rajah B8. Walau bagaimanapun terdapat kesilapan kompilasi. Kenalpasti kesilapan tersebut.

```
class X
{
    //Class X Members
}

class Y
{
    //Class Y Members
}
class Z extends X, Y
{
    //Class Z Members
}
```

Figure B8 / Rajah B8

[2 marks]
[2 markah]

CLO2
C4

- (ii) Analyze and determine the missing code in the following program in Figure B9.

Analisis dan tentukan kod yang hilang dalam program berikut di Rajah B9.

```
abstract class A{
    abstract int add(int a, int b);
}
class B extends A{
}
```

Figure B9 / Rajah B9

[3 marks]
[3 markah]

CLO3
C3

- (f) Interpret the output based on the following program in Figure B10.
Terjemahkan output berdasarkan program berikut di Rajah B10.

```
class Transport {
    String type;
}
class Motorcycle extend Transport {
    String brand_name;
    String model_name;
    int no_of_tyre;

    public Motorcycle(String bname,String mname,int notyres)
    {
        super.type = "Motorcycle";
        brand_name = bname;
        model_name = mname;
        no_of_tyre = notyres;
    }

    void displayData( ) {
        System.out.println("Brand Name: "+ brand_name);
        System.out.println("Model Name: "+ model_name);
        System.out.println("Number of Tyres: "+ no_of_tyre);
    }

    public static void main(String args[]) {
        Motorcycle M1 = new Motorcycle("Honda","Ex5", 2);
        System.out.println("Class : "+ type);
        c1.displayData();
    }
}
```

Figure B10 / Rajah B10

[5 marks]
[5 markah]

CLO1
C1

- (g) Define a thread in Java program.
Definisikan thread dalam program Java.

[1 marks]
[1 markah]

CLO2
C2

- (h) State the syntax to start a thread.
Nyatakan sintaks untuk memulakan sesuatu "thread".

[1 marks]
[1 markah]

SOALAN TAMAT