



TIPS PALANG SALINAN KAD PENGENALAN

BAGI MENGELOKKAN DOKUMEN **DISALAHGUNA**
OLEH INDIVIDU YANG TIDAK BERTANGGUNGJAWAB,
ORANG RAMAI DISARANKAN MEMBUAT
PALANG DUA (2) GARISAN LURUS PADA DOKUMEN
DENGAN **MENULIS TUJUAN** ATAU ATAS URUSAN APA
DOKUMEN TERSEBUT DIGUNAKAN.



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Demo Company Sdn Bhd					KITARAN AKHIR - JANUARI 2019						
NO. PEKERJA	JEFF001					JAWATAN	Sale Executive				
NAMA	JEFFREY DEMO					NO. KWSP	12345677899				
NO. KP						NO. SOCSO	123456789				
BAHAGIAN	OFF					NO. LHDN	123456789				
KADAR BASIC	4,800.00	HK	ABS	AL	EO	LAT	PH	MC	TOF		
HARI BEKERJA	30.00	26.00	1.00	1.00	3.00	1.00	1.00	1.00	.17		
PENDAPATAN					POTONGAN						
GAJI ASAS	5,000.00	KWSP PEKERJA				561.00					
ALLOWANCE	500.00	SOC SO PEKERJA				19.75					
ATTANDANCE PRORATE	50.00	SIP PEKERJA				7.90					
ATTENDANCE ALLOWANCE (XSH)	235.00	PCB PEKERJA				741.65					
DAILY ATTENDANCE	100.00	ABSENCE				154.84					
ENCASHMENT	369.23	EARLY OUT				69.23					
MEDICAL FEE	500.00	LATENESS				180.00					
PERFORMANCE	500.00	TIME OFF				3.92					
PETROL	100.00	CP38				166.00					
OT RATE FLAT	461.54	POTONGAN LAIN-LAIN				350.00					
JUMLAH PENDAPATAN	7,815.77	JUMLAH POTONGAN				2,254.29					
					GAJI BERSIH						5,561.48

KWSP (MAJI):	607.00
SOC SO (MAJI):	69.05
EIS (E'YER)	7.90

TKT AL 15.00 HARI [8.00]
TKT HOSP 0.00 HARI [60.00]

DISAHKAN OLEH:

DITERIMA OLEH:



UNIVERSITI TEKNOLOGI MARA

COURSE : ENTERPRISE PROGRAMMING
COURSE CODE : CSC584
DATE : [REDACTED]
SEMESTER : [REDACTED]

Instruction:

1. This paper consists of 2 Parts – **PART A (15 Objective Questions)**
PART B (2 Structured Questions)
PART C (1 Structured Question)
2. Answer ALL questions.

Name

Student ID

Group

Part A		30	
Part B	Q1	4	
	Q2	6	
Part C		10	
Total		50	

PART A: MULTIPLE CHOICES (30 MARKS)

1. Given:

```
public class Calculator {  
    int num = 100;  
    public void calc(int num) {  
        this.num = num * 10;  
    }  
  
    public void printNum(){  
        System.out.println(num);  
    }  
    public static void main(String[] args) {  
        Calculator obj = new Calculator ();  
        obj.calc(2);  
        obj.printNum();  
    }  
}
```

What is the result?

- a. 20
- b. 100
- c. 1000
- d. 2

2. Given the following class

```
public abstract class Customer {  
    private String name;  
    public Customer (String name) {  
        this.name = name;  
    }  
    public String getName() { return name; }  
    public abstract void buy();  
}
```

Which statement are **TRUE** about Customer class?

- a. The Customer class cannot be extended.
- b. The Customer class cannot be instantiated.
- c. Subclasses of Customer cannot override `getName()` method.
- d. Concrete subclasses of Customer must use a default constructor

3. What will be the output of the following Java code?

```
class A {
    public int i;
    private int j;
}
class B extends A {
    void display() {
        super.j = super.i + 1;
        System.out.println(super.i + " " + super.j);
    }
}
class inheritance {
    public static void main(String args[]) {
        B obj = new B();
        obj.i=1;
        obj.j=2;
        obj.display();
    }
}
```

- a. 2 2
- b. 3 3
- c. Runtime Error
- d. Compilation Error

4. What is Java EE component?

- a. Special icons for creating the user interface elements for thin clients.
- b. A data module saved to the component area of the database
- c. A self-contained functional software unit that is assembled into a Java EE application and interfaces with other application components
- d. A JAR file

5. "request" is instance of which one of the following classes?

- a. Request
- b. HttpRequest
- c. HttpServletRequest
- d. ServletRequest

6. Which of the following code is used to get an attribute in a HTTP Session object in servlets?

- a. session.getAttribute(String name)
- b. session.alterAttribute(String name)
- c. session.updateAttribute(String name)
- d. session.setAttribute(String name)

7. The following is the sequence of the life cycle of the servlets

1. init() 2. destroy() 3.service()

- a. 1,2,3
- b. 3,2,1
- c. 2,1,3
- d. 1,3,2

8. All the _____ data is kept at the application server _____ data is kept at the web server?
- HTML, Servlet.
 - static, dynamic
 - dynamic, static.
 - Servlet, HTML.
9. Which is not a directive?
- include
 - page
 - export
 - useBean
10. Servlet are used to program which component in a web application?
- client
 - tomcat
 - server
 - applet
11. Which are the session tracking techniques?
- URL rewriting
 - Using session object
 - Using response object
 - Using hidden fields
 - Using cookies
 - Using servlet object
- i, ii, iii, vi
 - i, ii, iv, v
 - i, vi, iii, v
 - i, ii, iii, v
12. Which of the following is true?
- A bean cannot have any constructors with parameters
 - A bean must be a private class
 - A bean must have a public argument constructor
 - All of the above.
13. Which one is the correct order of phases in JSP life cycle?
- Initialization, Cleanup, Compilation, Execution
 - Initialization, Compilation, Cleanup, Execution
 - Compilation, Initialization, Execution, Cleanup
 - Cleanup, Compilation, Initialization, Execution
14. Java code is embedded under which tag in JSP?
- Declaration
 - Scriptlet
 - Expression
 - Comment
15. Which one of the following is correct for directive in JSP?
- <%@directive%>
 - <%!directive%>
 - <%directive%>
 - <%=directive%>

ANSWER FOR PART A (30 MARKS)

1.	=A=	=B=	=C=	=D=	9.	=A=	=B=	=C=	=D=
2.	=A=	=B=	=C=	=D=	10.	=A=	=B=	=C=	=D=
3.	=A=	=B=	=C=	=D=	11.	=A=	=B=	=C=	=D=
4.	=A=	=B=	=C=	=D=	12.	=A=	=B=	=C=	=D=
5.	=A=	=B=	=C=	=D=	13.	=A=	=B=	=C=	=D=
6.	=A=	=B=	=C=	=D=	14.	=A=	=B=	=C=	=D=
7.	=A=	=B=	=C=	=D=	15.	=A=	=B=	=C=	=D=
8.	=A=	=B=	=C=	=D=					

PART B (10 MARKS)

1. **What is Model-View-Controller(MVC).** briefly explain each of MVC THREE layers? (4 marks)

2. Given a Staff Javabean in the following code.

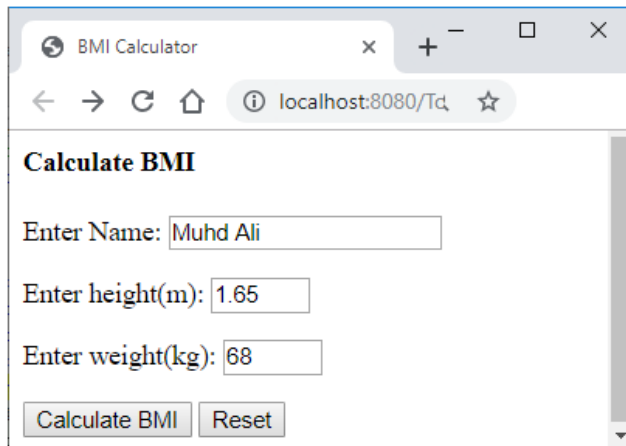
```
public class Staff {
    private String name;
    private double salary;
    public void setName(String name){
        this.name = name;
    }
    public void setSalary(double salary){
        this.salary = salary;
    }

    public String getName(){return name;}
    public String getSalary(){return salary;}
}
```

- a. Create an instance of the Staff class and associates it with the id attribute converter to be use in the entire JSP with page as the scope attribute. (2 marks)
- b. Assign the Staff properties using the JSP standard set method. (2 marks)
- c. Retrieve the Staff converter properties using the JSP standard get method. (2 marks)

PART C. (10 MARKS)

The purpose of the following Web page in **Figure 1** is to calculate the Body Mass Index (BMI). The user enters name, height in meters and weight in kilograms. The BMI formula is given as: $BMI = \text{weight}(\text{kg}) / \text{height}(\text{m})^2$



BMI Calculator

Calculate BMI

Enter Name: Muhd Ali

Enter height(m): 1.65

Enter weight(kg): 68

Calculate BMI Reset

Figure 1

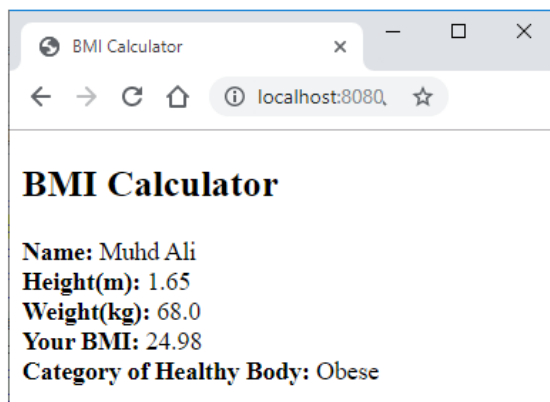
Refer to the table below to determine categories of healthy body weight based on BMI calculator.

BMI range	Category
< 18.5	Underweight
18.5 – 24.9	Normal
25.0 – 29.9	Overweight
> 30.0	Obese

Assume there is existing HTML page that prompts the user to enter height and weight of adult. Click the Calculate BMI button will invoke a JSP to compute BMI and display the category of healthy body weight.

Write the `BMICalculator.jsp` that fulfill the following requirement:

- To handle the two predefined variables using the request parameter object.
- Calculate the BMI.
- Display the result as following:



BMI Calculator

Name: Muhd Ali

Height(m): 1.65

Weight(kg): 68.0

Your BMI: 24.98

Category of Healthy Body: Obese



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    public static void main(String[] args) {  
        Calculator obj = new Calculator ();  
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```

What is the result?

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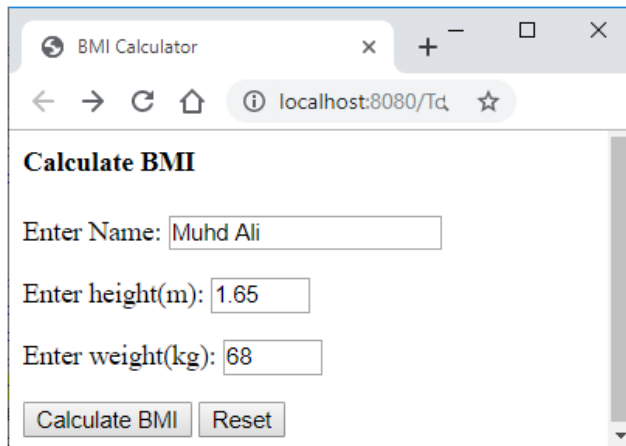
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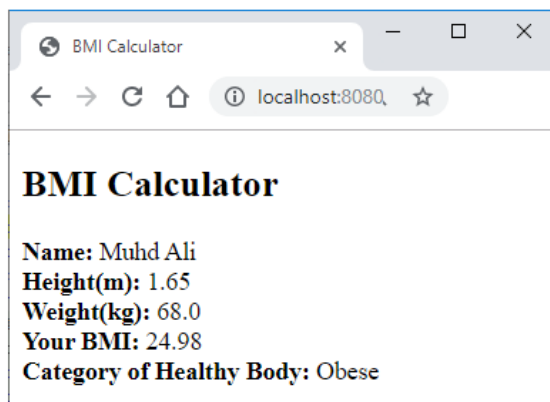
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