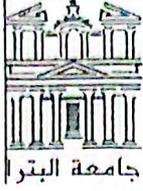
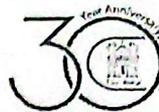


Model

University of Petra		 30 30th Anniversary جامعة البتراء - ثلاثون عاما University of Petra
Faculty of Information Technology		كلية تكنولوجيا المعلومات
Department of Computer Science		قسم علم الحاسوب

Information Technology Fundamentals

601105

Midterm Exam – 2025 (1)

Form B

Your Name:

Your ID:

Your Instructor Name:

Instructions for the Exam:

- Write your name and ID number on the exam and answer sheets.
- Write the number of the section that you enrolled in.
- Write the name of your instructor.
- Questions in the exam not allowed.
- Using any type of technology (mobiles, smart watches) not allowed
- Using extra papers or sheets not allowed
- The exam consists of four questions.

For instructor use only:

Question number	Course ILO	Program ILO	Question weight	Student mark
Q1	K2		10	
Q2			8	
Q3	I1		7	
Q4	P1		10	
			Total /35	

Form B

Question 1: Choose the correct answer for the following questions: (10 marks)

1. A collection of data organized for easy access and manipulation is called:
 - a) Record
 - b) File
 - c) Database
 - d) Field

2. The set of instructions that make up solution to a problem is called:
 - a) Program
 - b) Result
 - c) Documentation
 - d) Computer software

3. Which of the following escape sequences moves the cursor to the beginning of the current line:
 - a) \t
 - b) \f
 - c) \n
 - d) \r

4. Which of the following is correct about Flowcharts:
 - a) can be developed from algorithms
 - b) They are the Graphical representations of the algorithms
 - c) Show the flow of processing from beginning to end
 - d) All options are correct

5. When using Scanner class, which of the following methods is used to obtain to a short value from the user:
 - a) nextShort()
 - b) nextDouble()
 - c) next()
 - d) nextFloat()

Form B

Question 2: Find the error in the following Java code and rewrite the corrected version. (8 marks)

A.

```
String temp = 38.7;
if (temp > 40 || (temp < 36))
    System.out.println("Go to hospital");
else if (temp >= 36.1 && temp <= 37.2)
    System.out.println("No fever");
else if (temp >= 37.3 && temp <= 38.5)
    System.out.println("Mild fever");
else if (temp >= 38.6 && temp <= 39.9)
    System.out.println("High fever");
```

B.

```
int c = 2026;
if (c > 2025)
    system.out.println("Happy New Year");
```

Question 3: Find the output of the following java programs: (7 marks)

A.

```
class Test {
    public static void main(String[] args) {
        float a = 67.5f;
        System.out.println("Integer number: " + (int) a);
        System.out.println("Fractional number: " + (a - (int) a));
    }
}
```

Output:

```
Integer number: 67
Fractional number: 0.5
```

B.

```
class Test2 {
    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        int x, y;
        System.out.print("Please enter value of x: ");
        x = input.nextInt(); // assume x = 5
        y = 2 + x--;
        y--;
        System.out.println("The values of x and y are: x is " + x + ", y is " + y);
    }
}
```

Form B

Output:

please enter value of x: 5
The values of x and y are: X is 4, y is 6

C. What does the **switch** statement output when the variable **num** is 3?

```
Scanner input = new Scanner(System.in);
int num = input.nextInt();

switch (num) {
    case 1:
        System.out.println("Mira");
        break;
    case 2:
        System.out.println("Ahmad");

    case 3:
    case 5:
        System.out.println("Besan");

    default:
        System.out.println("Suzan");
        break;
}
```

Output:

Besan
Suzan

Form B

Question 4: Write an algorithm (pseudocode), draw a flowchart, and write a Java program that reads an employee's monthly salary and years of experience. Using a Two-Way If-Else statement, determine whether the employee qualifies for a promotion based on the following rules: (10 marks)

- The employee's salary must be 2000 or higher.
- The employee must have at least 3 years of experience.

If the employee meets both conditions, the program should display: "You qualify for a promotion.". Otherwise, it should display: "You do not qualify for a promotion.".