



**Final Examination
Practical Question Paper**

Application Development Fundamentals-I(Java)

Semester: **2**

Curriculum Code: 6608

Date: 19/05/2022

Duration: 1.5 **Hour**

Total Marks: **20**

Do not write on this question paper and return it to the Invigilator after the examination.

Application Development Fundamentals-I(Java)

Total Marks:

[20.0]

Question 1:**[12]**

- Create class **Item** in package named **market**, and include the following properties and methods:
 - o Create 3 properties named: **int id**, **String name** and **double price**, create methods get/set for these properties. [1]
 - o Create two constructors, one with no argument and one accept value for all properties.[1]
 - o Create a method named **display()** to display three properties of Item object. [1]
 - o Create a method named **input()** to input value of three properties from keyboard. [1]
- Create class **ItemManager** in package **market** to do following works:
 - o Create method **setItems()** to input information of a Item array, this array is a property of the class. The number of Item is input from keyboard, with maximum is 10. During the input process, if id of Item is -1, the process is finished. [3]
 - o Create method **getItems()** to display the list of Item with the following format: [2]

ItemID	ItemName	Price
1	TV Sam Sung	100
2	TV SONY	250
3	Máy Giặt SANYO	120

Highest Item Price : TV SONY : 250

Lowest Item Price : TV SamSung : 100

Average Item Price : 156,67

o Create a method named **findItem()** to find all **Item** by name and then display them out. [1]

- Create class **Main** in package **market** with a property kind of **ItemManager**. Create method main to do the following works:
 - o Create a menu: [1]
 - 1. Input Item list
 - 2. Display Item list
 - 3. Find Item
 - 4. Exit
 - o When the user select Menu 1, call method **setItems()** of a property type **ItemManager**. [0.5]
 - o When the user select Menu 2, call method **getItems ()** of a property type **ItemManager**. [0.5]
 - o When the user select Menu 3, call method **findItem ()** of a property type **ItemManager**. [0.5]

[0.5] ○ When the user select Menu 4, quit the application. [0.5]

Question 2: [8]

Write an application to work with String:

- Create class **Employee** with 2 properties **String name** and **String gender**:
 - Create set, get methods for 2 properties. [1]
 - Create method input() to input value of property **name**, the property **gender** has value depend on value of **name** with the rule: [4]
 - If middle name has word **Van** then **gender** is **Nam**
 - If middle name has word **Thi** then **gender** is **Nu**
 - If **Thi** or **Van doesn't** appear in the middle name then gender is **Unknown**
 - Create method display() to view information of Employee.[1]
- Create class **EmployeeString** with the method main, do the following works:
 - Input some **Employees** [1] ○ Display list of **Employees** [1]

Suggest:

Input n = 3

- Employee 1: Nguyen Van Cam
- Employee 2: Hoang Thi Quit
- Employee 3: Mit

Display:

Name	Gender
Nguyen Van Cam	Nam
Hoang Thi Quit	Nu
Mit	Khong xac dinh

-----THE END-----