COURSE WORK 3

JAVA PROGRAMMING 2 List one

Attempt the question assigned to your name and present you work for marking in the next lecture

Question 1   --   Munguryek Hillary

Tirupati stationery store sells items in bulk at a discount to its customers. Customers can order from a small range of items available on that day. The greater the quantity of an item they buy in one order, the greater the discount for that item.

Quantity of an item	Discount
10	5%
20	10%
50	25%
100	35%
500	50%

In addition to this, new customers can use a Ugx 10,000 voucher, provided their order comes to more than Ugx 500,000. Also, returning customers are given a discount voucher with a monetary value.

Write and test a GUI program or programs for Tirupati stationery store. Include the following in your work

- Error messages and other output need to be set out clearly and understandably.
- All variables, constants and other identifiers must have meaningful names.
- Using arrays, set up a list of at least 10 different items available that day. For every item include: item code, description, price and the amount in stock. All item codes must be different. Display the item code, description, price and the amount in stock on the screen.
- Items should be displayed using Radio Buttons

Question 2 ---- Amanyire Oyo Phillip

A user is asked to input two numbers, then the program should check which of the two is furthest from another number input too.

Required:

Write a GUI program to allow a user enter two numbers using text fields then also allow entering the third number. The program should then display which of the first two numbers is furthest from the third number using a new none sizeable Window. Put in mind negative numbers too

Question 3   -- Nakaima Priscilla

A car salesman is promoting two vehicles. The customer is trying to make the best decision according to the information received from the salesman.

Car A consumes 2 liters per kilometer covered. When the car covers 800 meters, it must be serviced at 5000 shs

Car B consumes 3 liters per kilometer covered. When the car covers 1000 meters, it must be serviced at 4000 shs

Assuming the two cars use the same type of fuel, if the customer covers an average of 2000 meters. Write a java program that recommends either A or B depending on the cost incurred.

Question 5   -- Butala Joel

A computer shop will build a computer from components to meet a customer's requirements. For

each request for a computer to be built, an estimate of the cost is produced. The component stock

level is checked; if all the components are in stock, a firm order to build the computer can be placed.

A program is required to work out the cost of the computer, update the stock levels and provide a

daily summary of orders for the shop owner.

Write and test a GUI program or programs for the computer shop owner.

• Your program or programs must include appropriate prompts for the entry of data.

• Error messages and other output need to be set out clearly and understandably.

• All variables, constants and other identifiers must have meaningful names.

Write a java program to calculate the cost of building a computer using these components.

Component	Choices	Prices in $
Processor	p3 / p5 / p7	100 / 120 / 200
RAM	16GB / 32GB	75 / 150
Storage	1TB / 2TB	50 / 100
Screen	19" / 23"	65 / 120
Case	Mini Tower / Midi Tower	40 / 70
USB ports	2 ports / 4 ports	10 / 20

The customer makes a choice for each component and an estimate is produced. The estimate must

show a unique estimate number, the components chosen and the price of each component. The

estimate must also show the total cost of the computer, which is calculated as the sum of the cost of

the components chosen plus 20%. Use Check boxes for the items

Question 6   -- Lukwago Joel

Using the AWT and or swing class, visualize an American Football pitch

Question 7   -- Madira Anthony

Using the AWT and or swing class, visualize a Tennis court

Question 8   -- Wanume Derrick

Using the AWT and or swing class, visualize a Netball court

Question 9   -- Mukisa Ronald

Using the AWT and or swing class, visualize a Basketball court

Question 10   -- Omar Ibrahim

Using the AWT and or swing class, visualize a Stick Person

Question 11   -- Opio Bob

Using the AWT and or swing class, visualize a volleyball court

Question 11   -- Ahebwa Arnold

Using the AWT and or swing class, visualize a football court

Question 12   -- Maganda Eddie

Using the AWT and or swing class, visualize a bicycle

Question 13   -- Elvis Matua

Using the AWT and or swing class, visualize a badminton court

**Question 14   -- Namugabo Florence**

Using the AWT and or swing class, visualize a futsal court

Question 15   -- Namuzibwa Laurinda

Using the AWT and or swing class, visualize a cricket court

Question 16 Garvin Yiga

Consider the diagram below which shows a class names Ourbank that provides a method to get the rate of interest. The rate of interest differs according to three banks at the rate of 8.4%, 7.3% and 9.7% for Bank A, Bank B and Bank C respectively
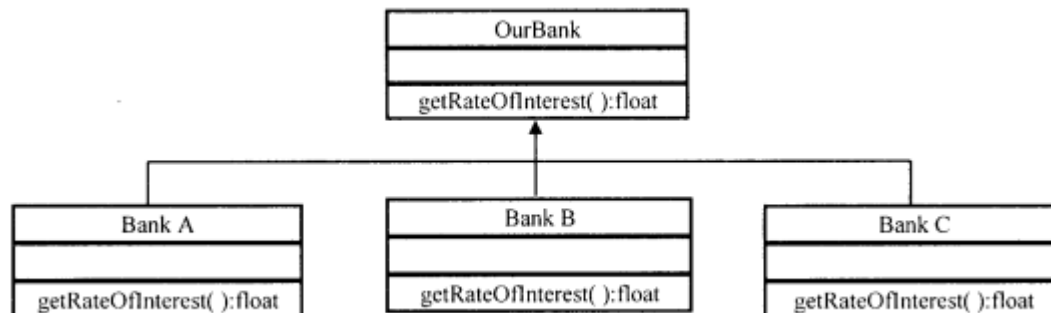
Required:

Write a Java program that demonstrates the use of polymorphism so that the output is given as:

   Bank A rate of Interest: 8.4

   Bank B rate of Interest: 7.3

   Bank C rate of Interest: 9.

Question 17 Kasumba Ziporah

Derrick and Sons Enterprise experiences frequent cyber attacks. The manager has recommended that employees should use a password with a combination of various character composition but in vain. You have been requested to develop a program that will check whether a given password string is valid. A valid password should meet the following conditions:

- Must have atleast 10 characters
- Should consist of a combination of letters and digits
- It must contain atleast 2 digits

Required:

Write a Java program to implement the above project

Question 18 Madira Anhony

The table below shows English language greetings based on particular times of the day. Use it to answer the question that follows

Greetings	Time of the day
Good morning	5 AM to 11: 59 AM (05:00 to 11:59)
Good afternoon	12:00PM to 5:59PM (12:00 to 17:59)
Good evening	6 PM to 8:59 PM (18:00 to 20:59)
Good night	9 PM onwards (after 21:00)

Write a program in Java language that allows a user to enter the time in decimal form through a text field. The program should then display the appropriate greetings on a message box. *Use if else if* construct and attach the code to a button

Question 18 Kiiza Collins

Write a program in Java to prompt a user to enter a number. The program should then display all the odd numbers less than the number entered

Question 19 Luyombya Nasser

Write a program in Java that accepts the number y. If the value of the expression $y^3 - y$ is greater or equals to 100, the program displays the message "A big number!" on a label, otherwise output "A small number!"

Question 20 Otukei Jonah

The length of the hypotenuse of a right angle triangle is given by the formula $c = \sqrt{a^2 + b^2}$ where a and b are the perpendicular sides and c is the hypotenuse

Write a program in java that would accept the values a and b, compute the hypotenuse and display the results

Question 21 Ayero Zulaika

A number is considered to be a multiple of 7 if it divides 7 and returns zero as a remainder. If the same number can divide 2 and return 0 as a remainder, that number should be displayed with a message box.

Write a Java program to check if a number that has been input meets the criteria above.

Question 22 Esenu Denis

Write a java program to check which number is furthest to the value 200 among two given integers.

Question 23 Nyabwongo Henry

design a program to find the larger from two input integers, However if the two integers have the same remainder when divided by 5, then the return the smaller integer. If the two integers are the same, Display 0.

Note a user should input the two numbers