



ELIZADE UNIVERSITY, ILARA-MOKIN, ONDO
STATE

FACULTY OF ENGINEERING
DEPARTMENT OF ELECTRICAL AND
COMPUTER ENGINEERING

SECOND SEMESTER EXAMINATION, 2017/2018 ACADEMIC SESSION

COURSE TITLE: OBJECT-ORIENTED DESIGN AND PROGRAMMING

COURSE CODE: EEE 532

EXAMINATION DATE: 6TH AUGUST, 2018

COURSE LECTURER: Dr. A. A. Sobowale

HOD's SIGNATURE

TIME ALLOWED: 3 HOURS

INSTRUCTIONS:

1. ANSWER FIVE QUESTIONS ONLY
2. SEVERE PENALTIES APPLY FOR MISCONDUCT, CHEATING, POSSESSION OF UNAUTHORIZED MATERIALS DURING EXAM.
3. YOU ARE **NOT** ALLOWED TO BORROW ANY WRITING MATERIALS DURING THE EXAMINATION.

Question #1

- a. Write briefly on the following: [2 marks Each]
- i. Exception in Java
 - ii. Abstract Windows Toolkit
 - iii. Variables
 - iv. Instance Variables
- b. List six properties of Variables [6 Marks].
- c. Enumerate six rules of naming variables. [6 marks]

Question #2

- a. What is an array? [4 Marks]
- b. In a class of 20 students, write Java syntax to declare the following name, age and dept of the students [6 Marks].
- c. In a class of fifty (50) students, write a Java program to determine those that are qualified for NYSC mobilization, your program should inform the intending corps members of the following classifications:
- i. distinction graduates will choose their state of service.
 - ii. Upper credit graduates will serve in Lagos/Abuja.
 - iii. Lower credit will serve in their state of origin.
 - iv. Others will be posted by NYSC [10 Marks].

Question #3

- a. List the following;
- i. Four (4) definitions of an Object [4 Marks].
 - ii. Three (3) characteristics of an Object [3 Marks].
 - iii. Three (3) ways to initialize an Object in Java [3 Marks].
 - iv. Five (5) elements of a Class [5 Marks].
- b. Write a Java Program to calculate the factorial of a number. Using anonymous Object initialize the number to 8 [5 Marks].

Question #4

- a. Enumerate five differences between Methods and Constructors in Java [10 Marks].
- b. Write a Java program to display the current account, the amount deposited and the amount withdrawn and total balance of an account. Initialize with acct no=832345, acct name="your name ". Initial balance= 1000, deposit =40,000; withdrawn= 26,000:00. [10 Marks].

Question #5

- a. With a relevant program, distinguish between WHILE and Do WHILE Statements [5 Marks]
- b. Write out the formula of the FOR statement in java explaining the functions of each component and the process flow of the components [7 Marks].
- c. Write a Java program to calculate the average of odd numbers from 1 to 50 numbers [8 Marks]

Question #6

- a. Explain what is Object-Oriented Programming? [4 marks]
- b. Enumerate three Characteristics of Object Oriented Programming (OOP) [6 marks]
- c. Write briefly on the following [2 marks Each]
- i. Encapsulation
 - ii. Polymorphism
 - iii. Data Abstraction
 - iv. Inheritance
 - v. Interface

Question #7

- a. List five types of Operators in Java [1 Mark Each]
- b. Use the right Java Relational operator syntax to represent the following scenarios [1 Mark Each]
- i. Electrical Electronics Students from Ondo town
 - ii. Distinction Students from Faculty of Engineering
 - iii. Teenagers
 - iv. Muslim female students
 - v. Nigerians qualified to vote
- c. What is Java Applet? [2 Marks]
- d. Write a simple Java Applet to display the text I am a simple Applet [8 Marks]

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