



NATIONAL OPEN UNIVERSITY OF NIGERIA
Plot 91 Cadastral Zone, Nnamdi Azikwe Express Way, Jabi, Abuja.

FACULTY OF EDUCATION

2023 2 EXAMINATIONS_

COURSE CODE: EDU815
COURSE TITLE: INSTRUCTIONAL TECHNIQUES AND METHODS IN SCHOOL MATHEMATICS
TIME ALLOWED: 2 HOURS **CREDIT UNITS:** 2 C

INSTRUCTION: ATTEMPT QUESTION ONE AND ANY OTHER TWO

1. As a Mathematics teacher, in which areas of planning will you engage in pre-active classroom teaching of Mathematics? **(30mks)**

2. Improvisation is an important solution to the problem of supply of instructional materials in Mathematics teaching. Explain the term *improvisation* and discuss how you will guide your students to produce instructional materials locally. **(20marks)**

3. a) Discuss 4 techniques of evaluation in Mathematics. **(12marks)**
b) Explain the following types of evaluation in Mathematics:
 - i) Formative Evaluation **(4marks)**
 - ii) Summative Evaluation **(4marks)**

4. What is guided discovery instructional approach in Mathematics? How will you use this method to teach your students that the ratio of the circumference of a circle to the diameter is the value of π (phi)? **(20mks)**

(c) List two things contained in a program documentation:

1 mark

Q3

(a) What are the character set used C programming language? Put your response in a tabular format.

4 marks

(b) Describe 3 rules for constructing integer constants

3 marks

(c) Declare a variable for each of the following C data type: integer, float, double, and character and assign appropriate data value at the pointer of declaration.

4 marks

(d) What is a statement? Give 2 examples.

4 marks

Q4.

(a) What will the following code segment give? Execute the code manually and give the result:

```
#include<stdio.h>
void main ()
{ int a;
a=5;
  for (k=1;k=4;k++)
  {
  while (a>=1)
  {
printf ("%d",a); a--;
  } printf("\n");
a= 10;
  }
}
```

5 marks

(b) Distinguish between if-else if statement and the switch statement using the following features: syntax, usage and expression?

6 marks