

APRIL 2021
EMA 406SW
ADVANCED STUDY OF TEACHING BASIC
SCHOOL MATHEMATICS
1 HOUR 30 MINUTES

Candidate's Index Number
Signature:

UNIVERSITY OF CAPE COAST
COLLEGE OF EDUCATION STUDIES
SCHOOL OF EDUCATIONAL DEVELOPMENT AND OUTREACH
INSTITUTE OF EDUCATION

FIVE-SEMESTER BACHELOR OF EDUCATION (SANDWICH) PROGRAMME
SECOND YEAR, END-OF-THIRD SEMESTER EXAMINATION, APRIL 2021

APRIL 27, 2021

ADVANCED STUDY OF TEACHING BASIC
SCHOOL MATHEMATICS

2:30 PM - 4:00 PM

SECTION B
[60 MARKS]

Answer any THREE questions from this section. Each question carries 20 marks.

1.
 - a. Explain the two major needs of assessment at the basic school level. [4 marks]
 - b. Amonu an elementary school teacher wanted to employ an observation method as means to assess her students' abilities in a mathematics classroom. Mention three efficient means for collecting this data to effectively unravel the strengths of the students. [6 marks]
 - c. Linda has difficulty adjusting to her new school especially when it comes to her being motivated in classroom. The class teacher has identified this problem and wants to help her to intrinsically motivate herself to excel in her academics. Explain three strategies the teacher can employ to help Linda. [10 marks]

2.
 - a. State two assumptions on which Kolb's Experiential Learning Cycle is based. [5 marks]
 - b. In a certain school, a pre-service mathematics teacher was observed by an external supervisor during off campus teaching practice and commented that, his/her questioning strategy was problematic and therefore needed to be improved. As an up-and-coming mathematics educator, explain five questioning techniques you think this pre-service teacher must be exposed to in order to make his/her teaching of the subject more effective. [15 marks]

- 3.
- a. You visited a special need school for an internship and during your stay you realized most of the teachers were not using the appropriate teaching and learning materials for the students which would enable them to learn effectively. As a professional teacher using the VAK learning style model, educate the teachers on the various learning style to help them select the appropriate TLM's for the students. [9 marks]
 - b. Explain the following methods of teaching mathematics. [5 marks]
 - i. Inductive-Deductive Method [3 marks]
 - ii. Dogmatic Method [3 marks]
 - c. Outline three qualities of a good assessment. [3 marks]
- 4.
- a. State how each of the following learners will benefit from classroom instruction.
 - i. Visual learners [2 marks]
 - ii. Auditory learners [2 marks]
 - iii. Kinaesthetic/tactile learners [2 marks]
 - b. i. What is observation? [2 marks]
 - ii. Give *one* reason why you will like to share observation information with your students. [2 marks]
 - c. Distinguish between *Portfolio* and *Journal*. [4 marks]
 - d. Explain two things that should be included in a *portfolio*. [4 marks]
 - e. Identify any two ways the mathematics teacher can use *a problem* to motivate the learner. [2 marks]