

APRIL 2021
EBS 145
ELEMENTARY GEOMETRY
1 HOUR 20 MINUTES

Candidate's Index Number

ABCE / JHS / 25 / 0170

Signature: 

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

COLLEGES OF EDUCATION
FOUR-YEAR BACHELOR OF EDUCATION (B.ED)
FIRST YEAR, END-OF-FIRST-SEMESTER EXAMINATION, APRIL 2021

APRIL 1, 2021 ELEMENTARY GEOMETRY 2:40 PM – 4:00 PM

SECTION B
(60 MARKS)

Answer only THREE questions from this section. Show all workings clearly.

1. a) A rectangular field has its length and breadth to be 23.7m and 14.5m respectively. The owner reserved 113.42 m^2 of the field for grazing and engages a labourer to clear the remaining portion of land at the cost of GHC2.57 per 1.4m^2 area. How much would the owner pay the labourer be paid for the job? [7 Marks]
- b) Find the equation of the line through $(-2, -3)$ and parallel to the line $3x - 2y = 5$. [13 Marks]
2. a) The vertices of a triangle ABC are $A(0,2)$, $B(1,5)$ and $C(-1,4)$. Find the:
- (i) lengths of AB , AC and BC of the triangle and determine the type of triangle formed giving reason for your answer. [12 Marks]
- (ii) the perimeter of the triangle ABC . [2 Marks]
- b) Find the area of the sector of a circle with radius 9 cm and central angle 35° . [Take $\pi = \frac{22}{7}$]. [6 Marks]
- 3) a) A hexagon has x° as the value of the angle of three of its interior angles. Two of the remaining angles are each double the size of the three interior angles with the sixth angle having a measure of 160° .
- i) Calculate the value of x . [5 Marks]
- ii) Find the corresponding exterior angle to the largest interior angle. [2 Marks]

b) In a given regular polygon, the ratio of the exterior angle to the interior angle is 1:3. How many sides has the polygon? [13 Marks]

4. a) Find the measure of each interior angle of a ceramic floor tile in the shape of a regular octagon. [6 Marks]

b) Determine whether the following pair of lines $3y = 2x + 4$ and $3y = -2x - 7$ are either parallel, intersect or perpendicular. [8 Marks]


c) The area of a circle is 38.5cm^2 . Find the length of the radius of the circle. (Take $\pi = \frac{22}{7}$). [6 Marks]

MARCH 2021
EBS 109J
FUNDAMENTALS OF IT EDUCATION
1 HOUR 30 MINUTES

Candidate's Index Number:

ABCE / JHS / 20 / 0170

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COLLEGES OF EDUCATION
FOUR-YEAR BACHELOR OF EDUCATION (B.ED)
FIRST YEAR, END-OF-FIRST SEMESTER EXAMINATION, MARCH, 2021

MARCH 30, 2021

FUNDAMENTALS OF IT EDUCATION

9:30 AM – 11:00 AM

SECTION B
[40 marks]


Answer any TWO Questions from this section.

1.
 - a.
 - i. Explain the term *Parity bit*. [2 Marks]
 - ii. What role does parity bit play in data transmission? [2 Marks]
 - b. How many bits will occupy a floppy disk? [4 Marks]
 - c. A character is represented on the computer as 10111011. What is its decimal equivalent? (Hint: Convert to base 10) [12 Marks]

2.
 - a. What is a System Unit? [2 Marks]
 - b. State one function of each of the following parts of the system unit:
 - i. Power supply [2 Marks]
 - ii. Heat sink [2 Marks]
 - iii. CPU [2 Marks]
 - iv. Hard disk drive [2 Marks]
 - v. Fan [2 Marks]
 - vi. RAM [2 Marks]
 - vii. Motherboard [2 Marks]
 - viii. DVD drive [2 Marks]
 - ix. Expansion slot [2 Marks]

- 3.
- a. What do you understand by the term *technology integration*? [4 Marks]
 - b. State and explain **four** barriers to technology integration [8 Marks]
 - c. i. Explain the term *computer graphics*. Give any **three** examples. [5 Marks]
ii. Outline any **three** uses of *text* in a multimedia application. [3 Marks]

MARCH, 2021
EBS 107
COMPUTER LITERACY
1 HR: 20 MINUTES

Candidate's Index Number
ABCE/JHS/20/0170
Signature: 

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FOUR-YEAR BACHELOR OF EDUCATION (B.ED)
FIRST YEAR, END-OF-FIRST SEMESTER EXAMINATION, MARCH 2021

SECTION B

Answer any two out of the four questions.

[60 marks]


1. (a) Explain the term *Internet*. [3 marks]
(b) Outline THREE uses of the Internet [6 marks]
(c) Discuss THREE reasons why you would not use the Internet as a teacher trainee. [6 marks]
(d) Explain the term *machine cycle*. [3 marks]
(e) State the four (4) steps of the machine cycle and provide a brief explanation to them. [12 marks]

2. (a) Write short notes on the following:
(i) *Control unit*
(ii) *ALU*
(iii) *Registers* [6 marks]
(b) What do you understand by the term *netiquette*? State any two of them. [6 marks]
(c) What does it mean to be digitally literate, and why is it important [4 marks]
(d) Explain the following terms as best as you can:
(i) LAN
(ii) WAN
(iii) WLAN [9 marks]
(e) List five (5) communication channels. [5 marks]

3. (a) What is a web browser? [3 marks]
(b) Mention THREE examples of a web browser. [3 marks]
(c) State five (5) uses of the computer in education. [10 marks]
(d) Explain the term backup in computing and state why regular backup of data is necessary. [6 marks]
(e) Differentiate between the following pair of terms:
(i) Data and Information [4 marks]
(ii) Storage Device and Storage Medium [4 marks]

4. (a) What is Repetitive Strain Injury (RSI)? [3 marks]
(b) Define *hardware*. [3 marks]
(c) List four examples of input devices. [4 marks]
(d) Enumerate four (4) differences between RAM and ROM. [8 marks]
(e) Differentiate between general-purpose and special purpose computers. [4 marks]
(f) State two (2) examples each of (e) above [4 marks]
(g) State any four (4) components housed by the system unit. [4 marks]

MARCH 2021
EBS 105PR
CHILD AND ADOLESCENT DEVELOPMENT
AND LEARNING
1 HOUR 20 MINUTES

Candidate's Index Number: ABCE / JHS / 20 / 0170 .
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UNIVERSITY OF CAPE COAST
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FOUR-YEAR BACHELOR OF EDUCATION (B.ED)
FIRST YEAR, END-OF-FIRST SEMESTER EXAMINATION, MARCH, 2021

MARCH 25, 2021 CHILD AND ADOLESCENT DEVELOPMENT 9:40 AM – 11:00 AM
AND LEARNING

SECTION B

Answer any TWO of the following questions in full essay form. Candidates who choose to answer question 2 should answer either 2A or 2B.

1.
 - a. What is meant by critical and sensitive periods in human development?
 - b. Describe any four critical or sensitive periods in child development and explain why these periods are seen as critical.

2.

EITHER

- A.
 - a) Explain the nature of the child in the following stages of psychosocial development of Erik Erikson.
 - i. Industry vrs inferiority
 - ii. Identity vrs role confusion
 - b) Discuss any three ways in which the teacher can apply the knowledge of these stages in teaching school children.

OR

- B.
 - a) Describe the nature of Adolescent Cognitive development as proposed by Jean Piaget.
 - b) Explain any three ways in which the teacher can ensure the optimum intellectual development of students during this period.


3.

- a. Distinguish between reception and discovery learning.
- b. Discuss any **five** merits of using discovery learning in teaching.

4.

- a. Explain any **two** theories of forgetting.
- b. Describe any **four** strategies the teacher can use in teaching to ensure that pupils remember what they have learned.

MARCH 2021
EBS 108
LANGUAGE AND LINGUISTICS
1 HOUR

Candidate's Index Number: ABUE/JHS/20/0170
Signature: 

UNIVERSITY OF CAPE COAST
COLLEGE OF EDUCATION STUDIES
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INSTITUTE OF EDUCATION

COLLEGES OF EDUCATION
FOUR-YEAR BACHELOR OF EDUCATION (B.ED)
FIRST YEAR, END-OF-FIRST SEMESTER EXAMINATION, MARCH, 2021

MARCH 24, 2021

LANGUAGE AND LINGUISTICS

9:30 AM – 10:30 AM

SECTION B
(40 MARKS)

Answer TWO questions from this section.

1.
 - a. What is Edward Sapir's definition of language? (2 marks)
 - b. State **three** defects of the definition. (2 marks x 3)
 - c. With appropriate examples, explain the following properties of language:
 - i. arbitrariness
 - ii. cultural transmission (4 marks x 2)
 - d. What is the difference between "macro" and "micro" skills of language? (4 marks)

2.
 - a. State **two** reasons why communication is an indispensable activity in all human organisations. (2 marks x 2)
 - b. Discuss the **four** main categories or communication styles. (3 marks x 4)
 - c. i. What is the difference between inter-personal and intra-personal communication? (2 marks)
ii. List **two** examples of inter-personal communication. (2 marks)

- 3.
- a. What is the difference between closing and centring diphthongs? (4 marks)
- b. From the list of adjectives numbered i – vii, match the one which is synonymous to those lettered a – f in the table below: (6 marks)

- i. confuse
ii. outstanding
iii. bashful
iv. indolent
- v. accomplish
vi. legitimate
vii. puny

a.	weak	
b.	lazy	
c.	introverted	
d.	valid	
e.	baffle	
f.	achieve	

- c. Identify the underlined sounds in the following words. (eg: mood - /u:/) (5 marks)
- i. teach
ii. child
iii. pool
iv. fish
v. book
- d. i. What does the term 'stricture' refer to? (2 marks)
ii. List **three** types of strictures. (3 marks)

- 4.
- a. Discuss **four** things you will consider in selecting a channel for communication. (3 marks x 4)
- b. Identify the type or category of antonym (graded, relational or complimentary) used in the following pairs of words: (5 marks)

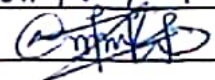
	Word	Antonym	Type or Category of Antonym
a.	bright	dull	
b.	sink	float	
c.	predator	prey	
d.	modern	old-fashioned.	
e.	give	receive	

- c. The word "get" is an example of polysemy. State **three** meanings of the word. (3 marks)

MARCH 2021
EBS 125
PRINCIPLES AND PRACTICE OF EDUCATION
1 HOUR 30 MINUTES

Candidate's Index Number

ABCE / JHS / 20 / 0170 .

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COLLEGES OF EDUCATION
FOUR-YEAR BACHELOR OF EDUCATION (B.ED)
FIRST YEAR, END-OF-FIRST-SEMESTER EXAMINATION, MARCH 2021

MARCH 26, 2021 PRINCIPLES AND PRACTICE OF EDUCATION 9:30 AM – 11:00 AM

SECTION B

(40 MARKS)

Answer any TWO questions from this section

1. Supposing you have appeared before the Parliamentary-Ministerial Appointment Committee, as a Minister of Education designate, discuss any five reasons why you think vocational and technical education must be strongly promoted in Ghana. (20 marks)
2. a. What is reflective teaching? (4 marks)
b. Discuss any four reasons why it is important for Ghanaian teachers to be encouraged to engage in reflective teaching. (16 marks)
3. Discuss any five ways by which the school is able to perform the political functions of education. (20 marks)
4. State and explain any four maxims or principles of teaching and provide examples as to how you will use them in your classroom teaching. (20 marks)

MARCH 2021
EBS 102J
COLLEGE ALGEBRA
1 HOUR 30 MINUTES

Candidate's Index Number:

ABUE/JHS/20/0170.

Signature:



UNIVERSITY OF CAPE COAST
COLLEGE OF EDUCATION STUDIES
SCHOOL OF EDUCATIONAL DEVELOPMENT AND OUTREACH
INSTITUTE OF EDUCATION
COLLEGES OF EDUCATION
FOUR-YEAR BACHELOR OF EDUCATION (B.ED)
FIRST YEAR, END-OF-FIRST SEMESTER EXAMINATION, MARCH, 2021

MARCH 30, 2021

COLLEGE ALGEBRA

2:30 PM – 4:00 PM

SECTION B
(60 MARKS)

Answer any THREE questions from this Section. Show working(s) clearly for each question.

1.

- a. i. Write down the binomial expansion of $(1+x)^4$. [2 marks]
- ii. Use the result in (i) to evaluate $\left(\frac{5}{4}\right)^4$, correct to three decimal places. [4 marks]
- b. There are 115 members in a club. Out of this number, 95 own a house or a car or a business, 30 club members own a house, 70 own a car and 23 own a business. It is known that 15 own both a car and a business; 12 own both a house and a business; and 13 own both a car and a house. Only x club members had a business, a car and a house.
- i. Represent the information on a Venn diagram.
- ii. Use the Venn diagram to calculate the number of club members who own:
- α_1) a car, a business and a house;
 - α_2) a car only;
 - α_3) a house only;
 - α_4) exactly two of the properties.
- [14 marks]

2.

- a. i. The houses along a street in a certain city are assigned odd numbers, starting from 3. If the last house is numbered 147. Find the number of houses on that street? [4 marks]
- iii. The arrangement of seats in a large auditorium is such that there are 9 seats in the first row, 12 seats in the second row, 15 seats in the third, and so on.
- α_1) If there are altogether 25 rows in the auditorium, how many seats will be in the 25th row? [4 marks]
- α_2) What is the total number of seats in the auditorium? [5 marks]
- b. Determine the values of p and q such that $\frac{\sqrt{5}+4}{3-2\sqrt{5}} - \frac{2+\sqrt{5}}{4-2\sqrt{5}} = p+q\sqrt{5}$. [7 marks]


3.

- a. i. When the polynomial $f(x) = x^3 - px^2 + qx + 2$, where p, q are constants, is divided by $(x - 2)$, the remainder is 2. When divided by $(x + 1)$, the remainder is -10 .
- α_1) Find the values of p and q .
- α_2) Hence, find $f(3)$. [10 marks]
- b. A carpenter can make at most 20 tables and at most 30 chairs per day. Each table requires 3 hours of labour and each chair 2 hours of labour. The maximum total number of hours of labour that the carpenter has at his disposal is 96 hours.
- i. Give three inequalities that express the conditions above.
- ii. Graph and shade the common region that satisfies these inequalities. [10 marks]

4.

- a. A binary operation, $*$ is defined on the set R , of real numbers by $p * q = p + q + \sqrt{2}$, where $p, q \in R$.
- i. Determine whether or not $*$ is associative. [4 marks]
- ii. Find the:
- α_1) neutral element, e of R under $*$;
- α_2) inverse of p ;
- α_3) inverse of $3\sqrt{2}$. [6 marks]
- b. The first, second and fifth terms of a linear sequence are three consecutive terms of an exponential sequence. If the first term of the linear sequence is 14, find the common:
- i. difference of the linear sequence;
- ii. ratio of the exponential sequence. [10 marks]

APRIL, 2021
EBS 118
INFORMATION LITERACY SKILLS
1hr:30min

Candidate's Index Number
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COLLEGES OF EDUCATION
FOUR-YEAR BACHELOR OF EDUCATION
FIRST YEAR, FIRST SEMESTER END OF SEMESTER EXAMINATION
ANSWER THREE (3) QUESTIONS IN ALL, ONE QUESTION FROM EACH SECTION

SECTION A

1. a. What is a digital Library? 2marks
- b. Explain four (4) advantages of a traditional library 12marks
- c. Mention two (2) services expected of your college library. 6marks
2. a. Describe the last three (3) standards of an information literate person. 12marks
- b. Explain any two benefits of Information Literacy Skills. 8marks

SECTION B

3. a. What are reference sources in the library? 2marks
- b. Name the two (2) types of reference materials 2marks
- c. List four (4) examples of reference materials aside **Encyclopedia and Dictionary** 4marks
- d. Mention two (2) uses of Gazetteers. 2marks
- e. Identify any five (5) uses of a dictionary. 10marks
4. In not more than three (3) sentences each; explain four (4) uses and four (4) misuses of the Internet. 20marks

SECTION C

5. Explain the following Internet search tools and give at least two (2) examples of each.

20mark

- a. Search Engines
- b. Meta-Search or Multi-Search Engines
- c. Web Directories/Portals (Subject Gateway or Multi-Subject Directory)
- d. Academic Databases

6. Use the APA Citation Style to answer the questions below:

a. Maxwell Kobia is a final year student of a college of education in Ghana. In his project work, he cited an article titled **Pre-service teacher's use and perceptions of Geogebra software as an instructional tool in teaching Mathematics**. This article is part of the volume 5(1) of the 2014 publication of the journal called **Journal of Educational Development and Practice**. The article, which was written by **Douglas Agyei and Isaac Bennin**, is found in pages 21 – 46. Maxwell Kobia quoted from page 21 of the article that **“The introduction of ICT has become an essential tool that supports innovation in teaching.”**

- i) Write an in-text reference for the Quotation: **“The introduction of ICT has become an essential tool that supports innovation in teaching”**. 4mark
- ii) Write an End Reference for Maxwell's work. 8mark

b. A book was published by Cengage Learning in Boston, in the year 2007 by Dennis Coon and John O. Mitterer titled **Introduction to Psychology: Gateways to mind and Behavior**. This is the 11th edition of this publication. 8mark

Good Luck