INDEX NO_____ SIGNATURE_____

UNIVERSITY OF GHANA

DEPARTMENT OF TEACHER EDUCATION

SCHOOL OF EDUCATION AND LEADERSHIP

SECOND YEAR END OF FIRST SEMESTER EXAMINATION, 2020/2021

(B. ED) BASIC EDUCATION

TEEG 211: INTRODUCTION TO EARLY GRADE SCIENCE I

TIME ALLOWED: 2 HOURS DATE:

Instruction: THE PAPER IS IN TWO SECTIONS, A AND B. ANSWER ALL THE QUESTIONS IN SECTION A AND TWO IN SECTION B.

SECTION A
(10 MARKS)

Instruction: Answer all the questions in this section in the answer booklet. For the multiple-choice items (questions 1 to 15), write the letter of the option that best answers the question. For questions 16 to 20, fill in the blank spaces with the most appropriate answers.

1. The tomato plant can be classified as all of these **except** _____.
   A. angiosperm
   B. dicots
   C. monocots
   D. vascular plants

2. Which of the following is not an erect plant?
   A. Banana
   B. Cassava
   C. Mango
   D. Yam

3. The shoot system of a plant consists of the following **except** _____.
   A. Flowers
   B. Leaves
   C. Roots.
   D. Stems

4. The animals that are kept by humans for companionship are usually termed as _____.
   A. companions.
   B. pesticide
   C. pests
   D. pets

5. All of the following are metals **except** _____.
   A. aluminium
   B. chlorine
   C. mercury
   D. zinc

6. Which of the following is sonorous?
   A. Argon
   B. Copper
   C. Iodine
   D. Neon

7. Adwoa is given an unknown material named X. Adwoa realized that X loses electrons easily. X is likely to be a _____.
   A. metal
   B. metalloid
   C. non-metal
   D. semi-metal

8. Steel and stainless steel are two different alloys but have some elements in common. Which of the following pairs of elements account for the difference(s) in characteristics of the two alloys?
   A. Carbon and iron
   B. Chromium and nickel
   C. Copper and zinc
   D. Iron and tungsten

9. Which of the following quantities is an indication of the degree of hotness or coldness of a body?
   A. Energy
   B. Heat
   C. Temperature
   D. Workdone

10. All non-metals have low melting and boiling points **except** _____.
   A. sulphur
   B. silicon
   C. graphite

D. phosphorus

11. Two or more bodies are said to be in thermal equilibrium when _____.
    A. their temperatures are at 0 K
    B. their temperatures are at 0 °C
    C. they are at the same temperature
    D. they have no heat energy in them

12. The chemical process which takes place on the surface of a metal whereby oxygen/air attacks the metal in the presence of water to form a metallic oxide is termed as _____.
    A. burning
    B. corrosion
    C. oxidation
    D. rusting

13. The process by which 'clean' (outdoor) air is supplied to a space, while stale air is removed is known as _____.
    A. aeration
    B. cooling
    C. regulation
    D. ventilation

14. The difference between a creeping and an erect plant is that _____.
    A. a creeping plant grows along the ground while an erect plant grows by twining around another plant.
    B. a creeping plant grows along the ground horizontally while an erect plant grows vertically upwards.
    C. A creeping plant grows vertically upwards while an erect plant grows along the ground horizontally
    D. an erect plant grows along the ground while a creeping plant grows by twining around another plant

15. Which of the following prevents stainless steel from rusting?
    A. Aluminium
    B. Carbon
    C. Chromium
    D. Copper

16. Rusting is an oxidation process whereby iron reacts with _____ in the presence of water to form hydrated iron (III) oxide.

17. Brass is an alloy made up of _____ and _____..

18. A teacher tailored his/her teaching to meet each student's learning needs. This teacher has employed _____.

19. The factor which determines the direction of flow of heat energy is called_____.

20. The root system of the plant develops from the _____ of the embryonic plant and it consists of the roots.

SECTION B

Answer only three (3) questions from this section

All questions carry equal marks of 10

1.

a) Compare 3 physical properties and 2 chemical properties of metals and non-metals. **[5 Marks]**

b) What is **Adolescence**? **[1Mark]**

c) Mention and briefly discuss any four uses of good ventilation. **[4 Marks]**

2.

a) What are the four (4) categories that herbs may be classified into according to the duration of their life? **[4 Marks]**

b) Differentiate between temperature and heat. **[2 Marks]**

c) What is a psychosocial need? Explain three psychosocial needs of the early adolescent. **[4 Marks]**

a) Differentiate between natural ventilation and mechanical ventilation.

[2 Marks]

b) Complete the following table **4 Marks**

ALLOY	COMPOSITION
Steel	
Stainless steel	
Cupronickel	
Bronze	

c) What is convection current? State two applications of convection currents.

[4 Marks]

a) How will you distinguish annual plants from biennial plants? **[2 Marks]**

b) State two (2) different ways that animals may be classified according to their body covering.

c) Explain the following term [6 Marks]

i. Conduction
ii. Convection
iii. Radiation

[2 Marks Each]

5.

a) Explain each of the following root systems in plants with two examples each.

i. Fibrous root system
ii. Adventitious root system

[2 Marks Each]

b) Outline two (2) effects of rusting and two (2) ways of preventing rusting. [4 Marks]

c) What are inclusive classrooms? [2 Marks]