



UNIVERSITY OF GHANA

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DEPARTMENT OF TEACHER EDUCATION
SCHOOL OF EDUCATION AND LEADERSHIP
COLLEGES OF EDUCATION

END OF SEMESTER TWO EXAMINATIONS FOR LEVEL 200, 2023/2024
B.ED. PROGRAMME

COURSE CODE: TEUP 208

COURSE TITLE: INTEGRATED SCIENCE II FOR UPPER PRIMARY

Instruction: Answer all questions in Section A and any three questions in Section B.
Time: 2 hours

SECTION A

[25 Marks]

Answer all the questions in this section.

1. Which of the following is not a type of ringworm?
 - a. Tinea capitis
 - b. Tinea corporis
 - c. Tinea cruris
 - d. Tinea pistules

2. The core competency which enables learners to draw on their own experiences to analyse situations and choose the most appropriate out of a number of possible solutions is known as what?
 - a. Creativity and Innovation
 - b. Digital literacy
 - c. Critical thinking
 - d. Personal Development and leadership

3. Harmathan is an example of.....
 - a. solid -- gas mixture
 - b. gas -- gas mixture
 - c. liquid -- gas mixture
 - d. solid -- solid mixture

4. Which of the following is not a symptom of Rubeola?
a. Cold or flu
b. Cough
c. Runny nose
d. Muscle pain
5. The best method or technique used normally for separation of a mixture of different compounds in solution is
a. Fractional distillation
b. Distillation
c. Separating funnel
d. Filtration
e. Chromatography
6. Which of the following are not a reason for the development of the Science Curriculum?
a. Develop a sense of curiosity, creativity, innovation and critical thinking for investigating and understanding their environment
b. Develop skills, habits and attitudes necessary for scientific inquiry
c. Communicate scientific ideas effectively
d. Develop and consume scientific products
7. The force of attraction between molecules of the same substances is known as
a. adhesion
b. cohesion
c. molecular force
d. compressional force
8. When a television set is switched on, electrical energy is converted into.....
a. light, sound and heat energies
b. chemical, light and sound energies
c. magnetic, sound and light energies
d. heat, magnetic and sound energies
9. Fractional distillation can be used to produce.....
a. ethanol from palm wine
b. kerosene from crude oil
c. charcoal from wood
d. salt from sea water
10. Which of the following types of energy can be used to sterilize equipment?
a. Electrical energy
b. Kinetic energy
c. Nuclear energy
d. Potential energy

11. How many basic possible methods are used for separating insoluble solids from liquids?
- a. 1
 - b. 2
 - c. 3
 - d. 4
12. The force that keeps a body moving in a circle directed towards the centre is known as.....
- a. compressional force
 - b. gravitational force
 - c. centripetal force
 - d. centrifugal force
13. A mango on its tree possesses potential energy. When falling, the potential energy is converted to kinetic energy. Just as it strikes the ground, kinetic energy is and potential energy is
- a. maximum, maximum
 - b. maximum, minimum
 - c. maximum, zero
 - d. zero, minimum
14. Electrical energy is a type ofcaused by moving electric charges.
- a. Nuclear energy
 - b. Light energy
 - c. Potential energy
 - d. Radiant energy
 - e. Kinetic energy
15.is organic material that comes from plants and animals, and includes crops, waste wood, and trees.
- a. Biomass
 - b. Fossil fuels
 - c. Nonrenewable energy
 - d. Renewable energy
 - e. Dirty energy
16. Crude oil, natural gas, and coal are called
- a. Biomass
 - b. Fossil fuel
 - c. Nonrenewable energy
 - d. Renewable energy
 - e. Dirty energy

17. Ringworm infection can also be called:
- Dermatophytosis
 - Dermatosis
 - Epidermophyton
 - Pustules
18. What method is used to separate blood cells from blood plasma?
- Filtration
 - Decantation
 - Distillation
 - Centrifuging
19. The potential energy of an apple is 6.0 joules. The apple is 3m high. What is the mass of the apple?
- 2.0
 - 0.2
 - 20
 - 200
 - 2000
20. A plastic comb passed through dry hair a number of times can pick up pieces of paper because....
- electrons are transferred from the comb to the hair
 - the nuclei of atoms of the comb have been made unstable
 - atoms are transferred from the comb to the hair
 - the comb has been charged by induction
21. The frictional force between two bodies depends on the
22. The force which opposes the relative motion of two surfaces in contact is.....
23. Fast moving vehicles overturn when negotiating curves because of
24. Your learner serves a volley ball with a mass of 2.1kg. The ball leaves the hand at 30m/s. The ball has
25. Calculate the energy of the ball in question 24.

SECTION B**[75 Marks]**

Answer any three questions in this section.

1. a. Write down FIVE ways of conserving energy at home. [5 marks]
b. Write down any FIVE misconceptions of energy. [5 marks]
c. Write down FOUR effects of forces on a body. [5 marks]

d. Demonstrate with flow charts to show the energy transformation in the following to a Primary Four student.
 - i) A carpenter hitting a nail with a hammer. [5 marks]
 - ii) A carpenter hitting a nail with a raised hammer. [5 marks]
2. a. Indicate which of the following processes are possible for separating these mixtures. [6 marks]
 - i. Separating vegetables or cooked yam from the water in which they have been cooked.
 - ii. Separating iron filings from a mixture of iron filings and Sulphur.
 - iii. Separating salt from a mixture of salt and sea water.
 - iv. Separating oil from a mixture of oil and water.
 - v. Separating ethanol from a mixture of ethanol and water.
 - vi. Separating cream from a mixture of cream and milk.
b. Tabulate FOUR differences between compounds and mixtures. [8 marks]
c. State any FIVE types of mixtures and give TWO examples each. [5 marks]
d. Your student has a mass of 50 kg. Does he have a greater energy after he has climbed onto a tree 5 m above the ground or when he is running at 5 ms^{-1} ? [Take $g = 10 \text{ ms}^{-2}$] [6 marks]
3. a. Choose one of the mentioned skin diseases (ringworm, eczema, chickenpox, and measles) and provide a detailed description of its causes, symptoms, and common treatments. [9 marks]
b. Explain the fundamental difference between luminous and non-luminous bodies in space. Provide examples of each. [6 marks]
c. Describe the principle behind filtration as a separation method and in what situations is it commonly used? [10 marks]
4. a. Discuss the role of personal hygiene in preventing skin diseases. Provide specific hygiene practices that can help reduce the risk of infection. [10 marks]
b. Discuss the difference between a solar eclipse and a lunar eclipse. Explain how and why these events occur. [10 marks]
c. Define the term "mixture" in your own words and explain how it differs from a pure substance. Provide examples of both mixtures and pure substances. [5 marks]
5. a. Define the solar system and describe 3 of its main components. [12 marks]

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- b. Discuss the process of distillation as a separation method for liquid mixtures. Explain how differences in boiling points are utilized to separate components. [8 marks]
- c. Describe the characteristics that make the Sun a luminous body. [5 marks]