



**AKENTEN APPIAH-MENKA UNIVERSITY OF SKILLS TRAINING
AND ENTREPRENEURIAL DEVELOPMENT
INSTITUTE FOR TEACHER PROFESSIONAL DEVELOPMENT AND
LIFELONG LEARNING (ITPDLL)**

END OF FIRST SEMESTER EXAMINATION 2023/2024

COURSE CODE	GRC/JBC 111
COURSE TITLE	INTRODUCTION TO INTEGRATED SCIENCE 1
DURATION	TWO HOURS
INSTRUCTIONS	THIS PAPER CONSIST OF SECTIONS A, B, C & D. ANSWER ALL THE QUESTIONS IN SECTIONS A, B, C AND ONE (1) QUESTION IN SECTION D INTO THE ANSWER BOOKLET PROVIDED.
INDEX NUMBER	

SECTION A: (20 MARKS)

Each of the questions below is followed by four options, lettered A, B, C, and D. Choose the option that best completes each statement and write the letter A, B, C, or D of the option you have chosen in your Answer Booklet.

1. The process of condensation is changing...
 - A. gas to liquid.
 - B. gas to solid.
 - C. liquid to gas.
 - D. solid to liquid.
2. The process by which naphthalene (camphor) placed in a box gets smaller in size is termed...
 - A. diffusion.
 - B. evaporation.
 - C. melting.
 - D. Sublimation.
3. Which of the following properties is common to both liquids and gases?
 - A. Fixed shape
 - B. Fixed volume
 - C. No definite shape
 - D. No definite volume
4. All the following are examples of liquids **except**?
 - A. Nitrogen
 - B. Oxygen
 - C. Pebble
 - D. Petrol

5. The temperature at which a substance changes its state from liquid to gas is called...
- 100°C.
 - Boiling point
 - Freezing point
 - Melting point
6. Which of the following is not a building block of matter?
- Atom
 - Element
 - Ion
 - Molecules
7. Which one of the following is a non-contact force?
- Electrostatic
 - Frictional
 - Magnetic
 - Tensional
- I only
 - II only
 - I and III
 - I and IV
8. The force that pulls a falling mango fruit toward the centre of the Earth is called.....force.
- tensional
 - gravitation
 - centripetal
 - centrifugal
9. Friction acts in opposite directions and it can affect an object to.....
- (I) slow down
 - (II) stop
 - (I) and (II) A and B speed up
 - (I), (II) and (III)
10. A puppy with a body mass of 0.5 kg moves from one point to another with an acceleration of 6 ms^{-2} . Calculate the force that acts upon the puppy's body.
- 0.08N
 - 3N
 - 5.5N
 - 6.5N

11. Which of the following ratios expresses pressure?
- Energy /Area.
 - Energy /Volume.
 - Force /Area.
 - Force /Volume.
12. Which of the following physical quantities is expressed as mass per unit volume?
- Area
 - Density
 - Work
 - Volume
13. Which of the following S.I. units cannot be used to measure the work done?
- Nm
 - J
 - W
- I only
 - II only
 - III only
 - I, II, and III
14. Which of the following options shows the prefixes in a descending order?
- Giga, Kilo, Mega, Nano.
 - Giga, Mega, Kilo, Nano.
 - Mega, Giga, Kilo, Nano.
 - Nano, Kilo, Mega, Giga.
15. Which of the following pairs of physical quantities and SI units is correct?
- Electric Current-SI unit: Volt.
 - Mass-SI unit: Gram.
 - Temperature-SI unit: Kelvin.
 - Time-SI unit: Hour.
16. Pick the **odd** item from the options.
- Length
 - Mass
 - Temperature
 - Volume
17. The micrometer screw gauge measures up to a precision of an object.

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- A. 0.001mm
- B. 0.01mm
- C. 0.1mm
- D. 1mm

18. Which of the following instruments is the most appropriate for measuring the speed of wind?

- A. Wind turbine
- B. Wind vane
- C. Barometer
- D. Anemometer

19. Pick the **odd** item from the options.....balance.

- A. beam
- B. chemical
- C. electronic
- D. spring

20. Why is it **not** advisable for a student to eat or drink in the science laboratory? To

- A. stay safe.
- B. prevent food or water contamination.
- C. prevent pest infestation of the laboratory.
- D. keep the laboratory clean and tidy.

SECTION B (10 Marks)

For questions 21- 30, write the appropriate word to complete them.

- 21. The spinning of the Earth around its axis is known as
- 22. Prof. Marian Ewurama Addy is a Ghanaian scientist who researched and published articles onmedicine.
- 23. The primary aim of administering First Aid is to
- 24. Scald is an injury which is caused by.....
- 25. The burns that involve all the layers of the skin are termed as
- 26. Matter is anything that has mass and occupies
- 27. The Earth takes.....hours to complete a rotation relative to the Sun.
- 28. Learning..... are theories that try to separate students by their different and optimum methods of learning.

29. The knowledge acquired through inquiry, observation, experimentation, and evaluation of information gained is referred to as
30. How many accepted basic quantities do we have?

SECTION C (10 Marks)

Indicate whether each of the following statements is TRUE or FALSE in Questions 31 to 40.

31. Seasons change due to the rotation of the Earth around the Sun.
32. A body with a mass of 3kg on earth approximately weighs 30N.
33. A learner who has a keen interest in observing the world around him/her is a key indicator of auditory learning characteristics.
34. 10^9 is the pre-fix notation for nano.
35. The error of parallel occurs when the eye is not positioned at the right place for measurements of liquids.
36. Liquid can flow and take the shape of its container.
37. Dr. Thomas Mensah is associated with the optic fiber invention.
38. There are **five** (5) strands of the basic school science curriculum.
39. The rate of change of velocity is acceleration.
40. The rate of change of displacement is velocity.

SECTION D (20 Marks)

Answer ONLY ONE question from this Section

41. (a) State and explain **three** (3) importance of providing First Aid to an injured person. **6 marks**
- (b) List any **five** (5) artifacts that can be included in the teaching portfolio. **5 marks**
- (c) State the S.I Unit for each of the following quantities: **4 marks**
- I. Force
 - II. Pressure
 - III. Acceleration
 - IV. Work
- (d) What does the abbreviation **ABC** in using **CPR** mean in First Aid? **3 marks**
- (e) What is a portfolio? **2 marks**

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42.

- a) List **four** (4) processes involved in the change of matter **4 marks**
- b) Explain the difference between rotation and revolution of the earth **4 marks**
- c) Name **six** (6) items that can be included in a first aid box **6 marks**
- d) Write down **two** (2) differences between science as a process and science as a product **2 marks**
- e) State any **four** (4) strands of the basic science curriculum **4 marks**

43.

- (a) Group the following forces into contact and field forces: **4marks**
 - i. Magnetic force
 - ii. Frictional force
 - iii. Electrostatic force
 - iv. Tensional force
 - v. Gravitational force
 - vi. Viscous drag force
 - vii. Cohesion
 - viii. Adhesion
- (b) State **four** (4) reasons why measurements should be done accurately **4marks**
- (c) Calculate the acceleration of a body of mass 0.5 kg if the force acting on it is 50N. **4marks**
- (d) (i) State three (3) properties of liquids **3marks**
- (ii) State two (2) examples of liquids. **2marks**
- (e) In a tabular form, state any three differences between weight and mass **3 marks**

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