

GRADE 8 INTEGRATED SCIENCE MIDTERM MARKING SCHEME

1. Some common causes of accidents in the laboratory that Wafula should take note of include: Spills and slippery surfaces.

Improper handling of chemicals and equipment.

Lack of proper ventilation leading to exposure to harmful fumes or gases.

2. Environmental scientist.

Laboratory technician.

3. Static electricity refers to the build up of electric charge on the surface of an object. It occurs when there is friction between two surfaces, causing electrons to transfer from one surface to the other, resulting in an imbalance of charge.

4. a) Acid: A substance that donates hydrogen ions in a chemical reaction.

Indicators: Substances that change color in the presence of acids or bases.

Bases: Substances that accept hydrogen ions or donate hydroxide ions in a chemical reaction.

5. Two diseases that affect the kidney are:

Kidney stones.

Chronic kidney disease.

6. Solid.

Liquid.

Gas.

7. The property of liquids being able to take the shape of their container is referred to as liquid have no definite shape.

8. Oxygen (O_2) - used for respiration.

Water (H_2O) - used for hydration and various industrial purposes.

9. Symbol: Na.

10. Water purification.

Production of bleach.

11. An atom is the smallest unit of a chemical element, consisting of a nucleus composed of protons and neutrons, surrounded by a cloud of electrons.

12. Graduated cylinder.

Volumetric flask.

Pipette.

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13. The iron fillings are attracted to both ends of the magnet because the magnet has two poles, a north pole and a south pole. The iron fillings align themselves along the magnetic field lines, with the north-seeking pole of the magnet attracting the south-seeking pole of the iron fillings, and vice versa.
14. Part A is the barrel or body of the Bunsen burner, and Part B is the air hole or air vent. Barrel or body: It houses the gas inlet and provides stability to the burner.
- Air hole or air vent; It controls the amount of air entering the burner, thereby regulating the flame's temperature and properties.
15. Commercial indicators are more preferred to plant extracts for identifying acidic or basic substances because: They offer more precise and consistent results due to standardized formulations. They often provide a wider range of colors for different pH levels, making it easier to distinguish between acids and bases accurately. Commercial indicators are readily available, convenient to use, and typically have a longer shelf life compared to plant extracts, which may vary in composition and stability.
16. (a). Biology - study of living things
- (b). Chemistry - study of matter and its properties
- (c). Physics - study of matter and its relation to energy

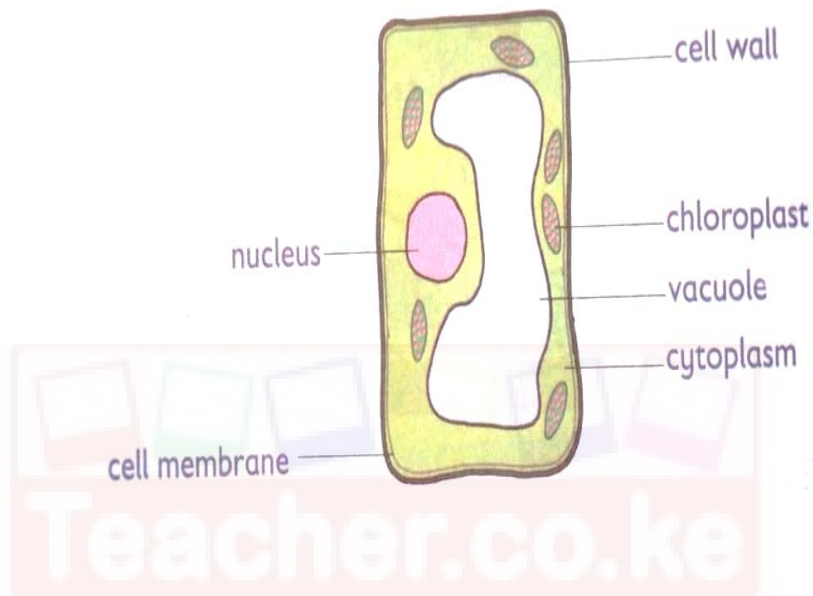


 <p>In case of fire out break this is the point to assemble.</p>	 <p>Show the route to use and exit the affected area in case of fire.</p>	 <p>Used to alert the users of the premises to exit the area due to fire outbreak</p>
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17.
18. ABCDEF
19. flammable Radioactive
20. oxygen, heat, fuel

21. a cell is defined as the basic unit of structure and functions in organisms.

22.



23.

Plant cells	Animal cells.
They are large in size.	They are small compared to plant cells.
It has a cell wall.	It does not have a cell wall.
Some plant cells have chloroplast that give the plant its green colour.	It lacks chloroplast.
Plant cells have a permanent vacuole that occupies a large part of the cell.	Animal cells usually do not have vacuoles, however, small temporary vacuoles may occur

24.
 - Manipulation skill
 - Observation skill
 - prediction skill
 - Communication skill
 - Conclusions skill
25.
 - Length - Metre
 - Time - Seconds
 - Electric current - Amperes (A)
26.
 - Magnifying lens

- Light Microscope

27. Homogenous

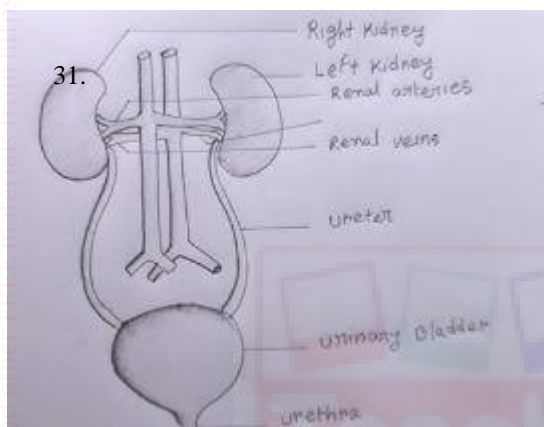
- 28.
- Menstrual phase
 - Follicular phase
 - Ovulation phase
 - Luteal phase

29. Heavy menstrual flow

Irregular cycle Missed

periods Painful periods

30. Implantation



32. Static charges

- 33.
- Hydroelectric power generator
 - Geothermal power generator
 - Solar energy
 - Wind driven turbines
 - Dry and wet cells

34. Eating a balanced diet

proper sleep

Dealing with stress

Exercising daily

Do not smoke

35. Macronutrients are the nutrients our bodies need in larger amounts such as carbohydrates, proteins and fats Micronutrients are the nutrients our bodies need in smaller amounts

- 36.
- Regulating body temperature
 - Transports nutrients
 - Helps in removal of waste

37. a) Acid reflux

Constipation

Ulcers

Roundworms infestation

38. This refers to a wide range of disorders that affect the mood thinking and behaviour of individuals.

Examples of such illnesses are;

- Depression
 - Anxiety disorders
 - Post-Traumatic Disorder.
- 39.
- Medical tape
 - Tweezers
 - Triangular bandage
 - Antiseptic
 - Scissors
 - Painkillers
 - Safety pins

- 40.
- Acts as a sensory organ
 - Regulates body temperature
 - Protects the inner parts of the body
 - Synthesizes Vitamin D