

Kelaniya Education Zone
Second Term Test – 2016
Science
Grade 9

Index No:.....

Time – 2 hours

Part I

▣ Underline the correct answer.

- 1) Living organisms originated spontaneously from non-living matter. This is known as “The theory of spontaneous generation”. Who is the scientist disprove this theory?
- | | |
|----------------------|--------------------|
| 1. Francis Bacon | 2. Francisco Reddi |
| 3. Alexander Fleming | 4. Galleio Galili |
- 2) Saman, a student in grade 9 saw that a bucket in the water is less heavier than a bucket outside the water. when taking out water from a well. To reveal the reason, he decided to apply the scientific method. Correct order of the scientific method is,
- | |
|---|
| 1. Observation → Hypothesis → Problem → Testing the hypothesis → Conclusion |
| 2. Hypothesis → Observation → Problem → Testing the hypothesis → Conclusion |
| 3. Observation → problem → Hypothesis → Testing the hypothesis → Conclusion |
| 4. Problem → Observation → Hypothesis → Testing the hypothesis → Conclusion |
- 3) Following are the statements of a student about optical microscope which is used to observe the things that can not be seen through the naked eye.
- a) There are convex and concave lenses.
- b) Use light to get image.
- c) The lens kept close to eye is an eye piece.
- Correct statements are,
- | | | | |
|----------|----------|----------|--------------|
| 1. a & b | 2. b & c | 3. a & c | 4. a, b, & c |
|----------|----------|----------|--------------|
- 4) The bacteria which converts lactose in to lactic acid in milk is,
- | | |
|------------------|------------------|
| 1. Streptococcus | 2. Nitrosomonas |
| 3. Rizobium | 4. Lactobacillus |
- 5) What is the disease which the live inactivated causative organism is given as a vaccine to get immunity?
- | | |
|--------------|-----------------|
| 1. Mumps | 2. Polio |
| 3. Diptheria | 4. Tuberculosis |
- 6) The main difference between the burette and the pipette is,
- | |
|--|
| 1. The burette is smaller than the pipette. |
| 2. Zero mark is indicated at the top of the burette. |
| 3. Burette is always used to measure a certain volume. |
| 4. Pipette could be used to measure even a small volume. |

7) Ammeter is used to measure,

- | | |
|------------|----------------|
| 1. Voltage | 2. Resistance |
| 3. Current | 4. Temperature |

8) The equipment which is used to heat small quantities of substances to very high temperatures,

- | | |
|------------------|--------------|
| 1. Boiling tube | 2. Test tube |
| 3. Ignition tube | 4. Crucible |

9) Identify the equipment,

- | | |
|----------------|-------------------|
| 1. Funnel | 2. Thistle Funnel |
| 3. Wash Bottle | 4. Density Bottle |



10) The scientist who invented the sextant is,

- | | |
|--------------------|--------------------|
| 1. Johannes Kepler | 2. Gallelio Galili |
| 3. Tycho Brahe | 4. Hans Cristine |

11) What is the constellation that can be seen in top of the sky during the months of February and March around 8 P.M in the night?

- | | | | |
|-----------|----------|----------------|-------------|
| 1. Gemini | 2. Orion | 3. Canis Major | 4. Pleiades |
|-----------|----------|----------------|-------------|

12) The Brightest star Sirius belongs to this constellation.

- | | | | |
|-----------|-------------|----------------|--------|
| 1. Taurus | 2. Pleiades | 3. Canis Major | 4. Leo |
|-----------|-------------|----------------|--------|

13) M81 galaxy is a spiral galaxy like Milky Way. Which constellation belongs to M81?

- | | | | |
|---------------|---------------|-----------|----------------|
| 1. Great bear | 2. Small bear | 3. Gemini | 4. Canis Major |
|---------------|---------------|-----------|----------------|

14) How many Constellations have been identified as Zodiac?

- | | | | |
|-------|------|-------|-------|
| 1. 10 | 2. 6 | 3. 12 | 4. 15 |
|-------|------|-------|-------|

15) If a bus takes 6 minutes to travel 6 km distance, then the average speed of the bus is,

- | | | | |
|---|---|---|---|
| 1. $\frac{6000 \text{ m}}{6 \text{ min}}$ | 2. $\frac{600 \text{ m}}{60 \text{ min}}$ | 3. $\frac{6000 \text{ m}}{6 \times 60 \text{ s}}$ | 4. $\frac{6000 \text{ m}}{3 \text{ s}}$ |
|---|---|---|---|

16) What is the field , "Pile Driver" Used in,

- | | |
|-----------------------------|-----------------------------------|
| 1. Repairing motor vehicles | 2. Building Construction |
| 3. Agriculture | 4. Correct answer is not provided |

17) You will get following observations by heating certain element. The element will be ,

- ☒ Produce bright blue flame.
- ☒ Gives off chocking smell.
- ☒ Turns in to liquid.

- | | | | |
|--------------|---------|-----------|------------|
| 1. Magnesium | 2. Iron | 3. Carbon | 4. Sulphur |
|--------------|---------|-----------|------------|

- 18) The symbol of this element has been derived from the Latin name,
 1. Silver 2. Hydrogen 3. Carbon 4. Sulphur
- 19) Bronze is an alloy which is used to make large bells. What is the metal it does not contain?
 1. Copper 2. Tin 3. Lead 4. Iron
- 20) Polythene is a useful polymer. What is the monomer polythene made by,
 1. Propylene 2. Styrene 3. Ethylene 4. Vinyl Chloride

Part II

■ Answer five questions including first question.

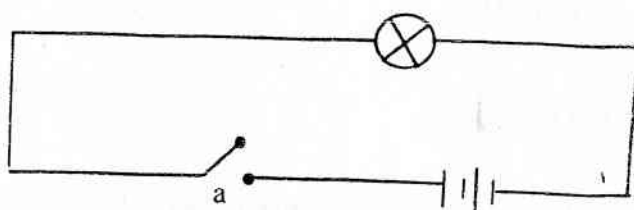
01. (A) Practical session is an assessment tool for second term. The main object of assessment is giving skills to make correct experiment setup for relevant practicals. Following activities are displayed according to the competency levels.
- I. Water beaker, copper sulphate (solid), Zinc meal
 - II. Magnesium strip, dilute hydrochloric acid, ekel, test tube
 - III. Soaked and blended dhal, biuret solution, test tube.
 - IV. Sugar, salt, water, sulphur powder, Iron powder, rice + husk mixture
 - V. Zinc, copper, dilute sulphuric acid, beaker, miliameter
1. Write two observations for the 1st experiment, when zinc metal reacts with aqueous copper sulphate?
 2. a.) What is the gas evolve between the reactions of magnesium and dilute hydrochloric acid?
 b.) Give the test to identify mentioned gas.
 3. a.) Biuret test is used to identify one of the nutrients. Name it.
 b.) What is the color appear in food by doing the test?
 4. Divide things in activity four as homogeneous and heterogeneous mixtures.
 5. a.) Draw and label he setup for the fifth activity.
 b.) Name positive and negative end of the cell.
 c.) Mention two weaknesses in this cell.
02. (A) We are unable to see every living things in the environment.
1. What is the name given for organisms that cannot see with naked eye?
 2. Name three types of such organisms.
 3. Name two organisms useful for vinegar production.
 4. What is the chemical in vinegar?

(B) Antibiotics are used to cure diseases infected by bacteria and some fungi.

1. What is meant by "antibiotic"?
2. Name two useful antibiotics.
3. Give one side effect of antibiotic usage.
4. Mention two considering facts when we use antibiotics.
5. Give two ways of spreading causative agents.

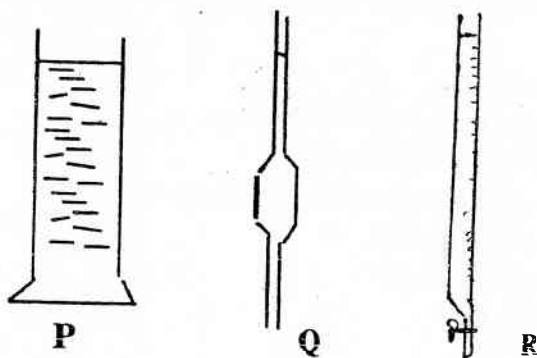
03. (A) Following equipments were given to the students to do an activity. Objective of the activity is identification of laboratory equipments.

3.8v torch bulb, two 1.5v dry cell, a switch, circuit board, voltmeter, Ammeter



1. Connect the suitable meters to measure the potential difference and the current along the bulb in the given circuit.
2. What are the standard units for potential difference and current?
3. Name the equipment denoted by "a".
4. Mention the single equipment that can be used instead of using voltmeter and Ammeter.

(B)



1. Identify and name above equipments.
2. Name two things we should consider when handling an equipment "P".
3. Give the specific feature of "R".
4. What is the suitable equipment to take out certain volume?
5. What is the equipment that can be used to fill harmful liquids to "Q"?

06. (A) Machines and Mechanical devices used by man in three fields.

- Building Construction
- Repairing motor vehicles.
- Agriculture.

1. Categorize given equipments according to the above fields.

Miter saw, Rotavator, Crane, Hydraulic jack, High pressure, High pressure water Sprinkle, wheel brace.

2. State each function for rotavator and a wheel brace.

3. Select the equipment which is used in both fields of repairing motor vehicles and agriculture.

(B) There are two types of energy sources as primary energy sources and Secondary energy sources.

1. What is mean by "Primary energy source".
2. Write down two examples for primary energy sources.
3. Name two secondary energy sources.

07. (A) Alloys are commonly used for construction purposes and to make instruments and tools.

1. What is mean by alloy?
2. Write the composition in stainless steel?
3. (a.) Mention a specific feature of "Duralumin" alloy?
(b.) Write two uses of it.

(B) All animals need to take food containing nutrients.

1. What are the nutrients present in food?
2. What is the nutrient responsible for disease prevention?
3. Write the test which is used to identify presence of starch in food.

(C) There is a certain amount of danger in buying goods without a quality certification.

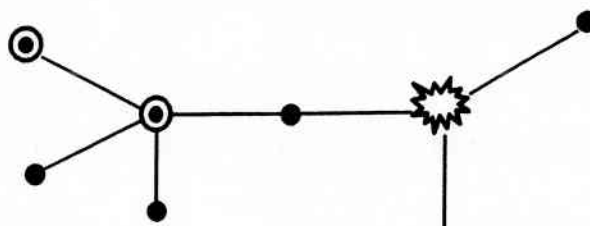
1. Write two criteria of measuring the quality of product?
2. What is the symbol "ISO" denotes?

04. (A) Use the words listed below to fill in the blanks.

The view of the Greek philosopher _____ was that the earth is flat. This idea was rejected by the great mathematician _____. The idea of _____ was that the sun, the moon and the planets revolve round the earth. Later the Greek _____ who stated that the earth revolves round the sun or _____ idea. _____ Was responsible for building up map of Sri Lanka. _____ a German astronomer was able to formulate laws of planetary motion. _____ is considered as the father of modern astronomy and he also made a _____ and observed _____.

(Geocentric model, Thales, heliocentric model, pythagorus, Sun spots, Ptolemy, Gallelio Galili, Johannes Kepler, telescope, Samosgi, Aristarcus)

(B)



1. Name the constellation given.
2. What is the brightest star belong to this constellation?
3. If you observe the sky in the months of February and March around 8 P.M, which direction you can see this constellation from the Orion.
4. Name the direction, the head of Orion id directed?
5. Write two uses of constellations.

05. (A) We can move an object in various ways by applying force. Linear motion is one kind of motion.

1. Name the 3 other type of motions.
2. Select vector quantities among these.
Speed, Acceleration, Distance, Displacement
3. If a cyclist takes 8 minutes to ride 400 m of distance, find out his speed?
4. Define "acceleration".
5. The train has started from rest, after 10 seconds moved with 20ms^{-1} velocity. Calculate the acceleration of the train?
6. Turn 36kmh^{-1} into ms^{-1} unit.