



COMPETENCY BASED ASSESSMENT TEST

SUBJECT: SCIENCE
CLASS: VI

TOTAL MARKS: 100
TIME: 2 HOURS 15 MINS

Name: _____

Roll No: _____

School: _____

Section: _____

Dzongkhag: _____

Gender: _____

READ THE FOLLOWING INSTRUCTIONS CAREFULLY:

1. In this booklet you will find **NINE** questions. You must answer all the questions.
2. Answers to **all** the questions must be written neatly in the spaces provided.
3. Do **not** write during the first **fifteen minutes**. This time is to be spent on reading the questions.
4. You will have **TWO** hours to answer all the questions.
5. You will be allowed to leave the examination room only half-an-hour before the completion of the stipulated time.

(First **FIFTEEN** minutes could be used by the teachers on duty to explain the instructions)

For Teachers' use only

Question	Q 1	Q 2	Q 3	Q 4	Q5						Q6						Q7	
Mark	25	10	10	10	ai (3)	aii (1)	bi (1)	bii (2)	biii (1)	c (1)	ai (2)	aii (1)	aiii (1)	bi (2)	bii (2)	biii (1)	ai (1)	aii (1)
Mark scored																		
Initial																		
Total																		

Question	Q7				Q8						Q9					
Mark	bi (1)	bii (1)	c (4)	d (1)	ai (1)	aii (1)	aiii (1)	aiv (3)	b (1)	c (2)	a (2)	b (1)	c (2)	d (1)	e (2)	f (1)
Mark scored																
Initial																
Total																

Final Marks: _____ Initial of the tabulator: _____

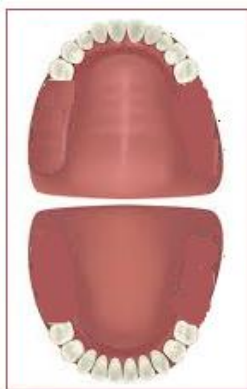
This booklet contains 23 pages.

Question 1.

[25 Marks]

Direction: For each question, there are four alternatives: A, B, C and D. Choose the correct alternative and circle it. Do not circle more than ONE alternative. If there are more than one choice circled, NO score will be awarded.

- i. Observe the picture given below carefully and answer the following question.

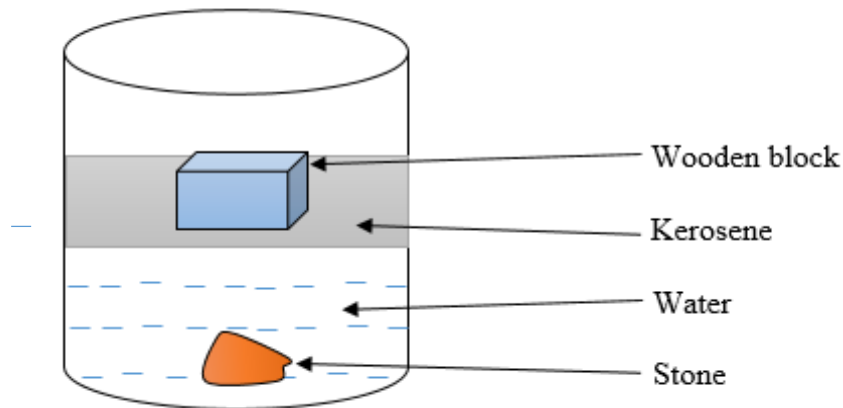


What difficulties would you face while eating?

- A** tearing and biting
 - B** tearing and chewing
 - C** biting and grinding
 - D** chewing and grinding
- ii. The symbol of zinc is Zn. What is the symbol of silver?
- A** Au
 - B** Hg
 - C** Ag
 - D** Mg

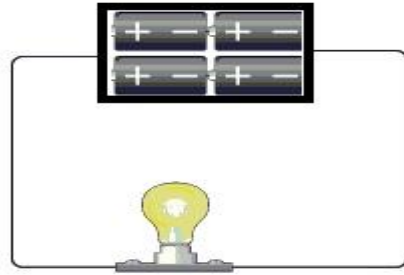
- iii. Sonam was washing utensils and he accidentally broke an earthen pot. The change that has taken place is
- A** physical change.
 - B** natural change.
 - C** chemical change.
 - D** irreversible change.
- iv. A mixture of alcohol and water can be separated by distillation. The condition required to separate the mixture is
- A** different boiling points.
 - B** same boiling points.
 - C** low boiling points.
 - D** high boiling points.
- v. The unit of weight is
- A** kg.
 - B** kgf.
 - C** km.
 - D** m.

- vi. Different substances have different densities. Which of the following statements is correct with regard to the figure given below?



- A Water is denser than stone and kerosene.
B Kerosene is denser than water and wooden block.
C Wooden block is denser than stone, kerosene and water.
D Stone is denser than water, kerosene and wooden block.
- vii. Which of the following is **NOT** the characteristic of image formed by a plane mirror?
- A erect
B virtual
C laterally inverted
D smaller than the size of the object
- viii. Frosted glass can allow some amount of light to pass through. It cannot be used for making windshield of a car because
- A it is expensive.
B it breaks easily.
C it gets scratched easily.
D the driver would not be able to see clearly.

- ix. What is the total voltage received by the bulb in the figure given below?



- A** 4 V
B 5 V
C 6 V
D 7 V
- x. Magnetic lines of force start from
- A** North Pole to South Pole.
B South Pole to North Pole.
C North Pole to North Pole.
D South Pole to South Pole.
- xi. Plant X is adapted to grow in dry conditions. It has smaller leaves and fewer branches.
The plant X is
- A** cactus.
B pistia.
C hydrilla.
D solanum.
- xii. Common cold is caused by
- A** virus.
B fungi.
C bacteria.
D parasites.

xiii. Which of the following characteristics of flower favours insect-pollination at night?

- A small and dull coloured petal
- B brightly coloured petal
- C lots of pollen
- D pleasant smell

xiv. Study the figure given below.



Identify the animal which suckles its young ones.

- A IV
- B III
- C II
- D I

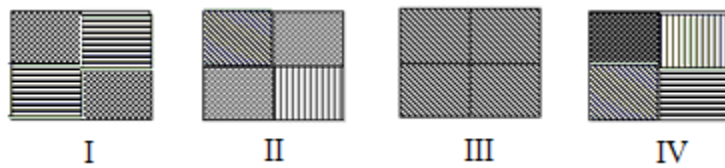
xv. The primary nutrients consist of

- A potassium, magnesium and nitrogen.
- B potassium, calcium and phosphorus.
- C potassium, nitrogen and phosphorus.
- D phosphorus, nitrogen and calcium.

xvi. An animal with hollow and light bones is

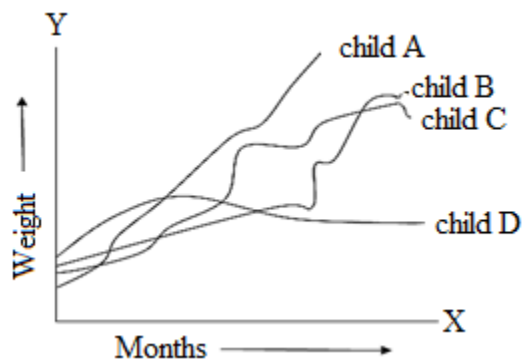
- A pigeon.
- B frog.
- C lion.
- D fish.

- xvii. An element is made up of only one kind of particle.
Which of the following figures shows an element?



- A** I
B II
C III
D IV

- xviii. Study the graph and answer the following question.



Which child is healthy?

- A** child A
B child B
C child C
D child D

xix. Dawa and Dema wish to make a see-saw. Name the simple machine that they would use.

- A pulley
- B lever
- C wheel and axle
- D inclined plane

xx. The following figure is related to work done.



Work done will be zero in the figure

- A I.
- B II.
- C III.
- D IV.

xxi. The form of energy present in a stretched elastic band is

- A kinetic energy.
- B radiant energy.
- C potential energy.
- D chemical energy.

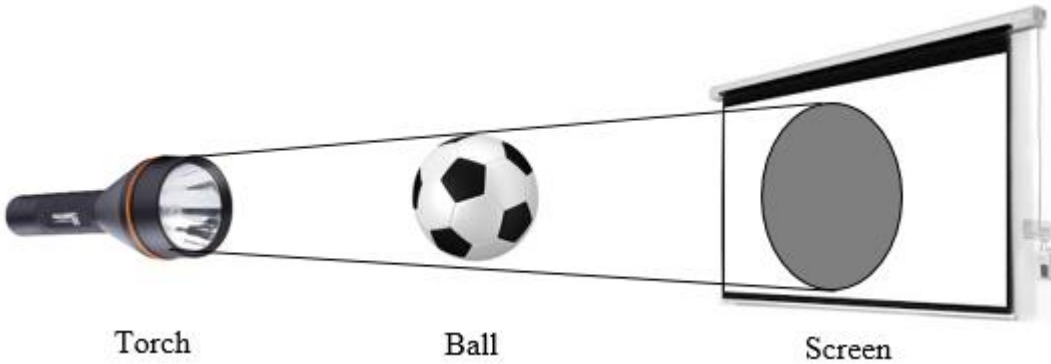
xxii. Dead remains of plants and animals buried under the Earth millions of years ago are called

- A fossil.
- B petrol.
- C diesel.
- D coal.

xxiii. When there is continuous light for more than 24 hours, it is called

- A** polar day.
- B** polar night.
- C** solar eclipse.
- D** lunar eclipse.

xxiv. The figure given below represents lunar eclipse.



What does the ball represent?

- A** Moon
- B** Earth
- C** Sun
- D** Star

xxv. The imaginary line that divides the Earth into two equal halves is

- A** longitude.
- B** latitude.
- C** equator.
- D** axis.

Question 2.

[10 Marks]

Direction: Fill in the blanks with appropriate word(s). Write the answers in the spaces provided below.

- i. Bottled mineral water is an example of _____ water.
- ii. Frying an egg is _____ change.
- iii. Sound requires _____ to travel through.
- iv. Breathing is a _____ pitched sound.
- v. The gas used during photosynthesis is _____.
- vi. Ovary develops into _____.
- vii. The animals with moist and slimy skin are called _____.
- viii. The front four teeth in each jaw are called _____.
- ix. A rolling stone possesses _____ energy.
- x. Bhutan lies in the _____ hemisphere.

Question 3.**[10 Marks]**

Direction: Match each item in column I against the most appropriate item in column II. Write only the alphabet against the number in the space provided below.

Column I		Column II	
i	Symbol	a.	repel
ii	Oil and water	b.	iron filings
iii	Pull of the Earth	c.	gravitational force
iv	Bending of light	d.	separating funnel
v	Magnetic substance	e.	iodine
vi	Like poles	f.	bacteria
vii	Curdling of milk	g.	reflection
viii	Starch test	h.	element
ix	Muscles	i.	water tap
x	Wheel and axle	j.	movement
		k.	refraction

i.
ii.
iii.
iv.
v.
vi.
vii.
viii.
ix.
x.

Question 4.

[10 Marks]

Direction: Write TRUE or FALSE against each statement in the space provided.

- i. An atom may or may not have free existence. (_____)
- ii. Maize thresher is a modern method of separation. (_____)
- iii. Mixture of milk and water can be separated by decantation. (_____)
- iv. Transparent objects cast shadow. (_____)
- v. Parallel circuit is not suitable for household wiring. (_____)
- vi. “Omnivores are the animals that eat both plants and animals”. An omnivore can be both primary as well as secondary consumer. (_____)
- vii. Maize, rice and peas are insect-pollinated plants. (_____)
- viii. Lion is a cold-blooded animal. (_____)
- ix. Doctors are replacing damaged heart with a special artificial pumping machine because our heart pumps blood to other parts of the body. (_____)
- x. Energy cannot change from one form to another. (_____)

Direction: Answer the following questions as directed and the answers must be written in the space provided. The marks for each question are given in the brackets [].

Question 5.

[9 Marks]

- a.i. Sort the following objects into acids and alkalis in the table given below. Write only the names of the objects. **[3]**



Vinegar



Soap



Lemon



Toothpaste



Orange



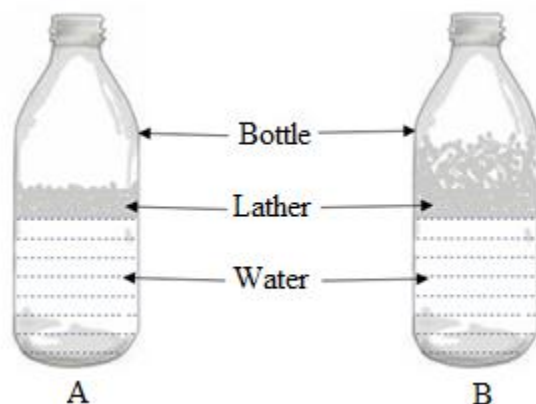
Bitter gourd

Acid	Alkali
i.	i.
ii.	ii.
iii.	iii.

- ii. Tick (✓) the box that shows the pH range of a strong alkali. [1]

<input type="checkbox"/> pH 1 - 3	<input type="checkbox"/> pH 5 - 8	<input type="checkbox"/> pH 9 - 12	<input type="checkbox"/> pH 12 - 14
-----------------------------------	-----------------------------------	------------------------------------	-------------------------------------

- b. Raju tested the hardness of water from two different sources. His observation is given in the figure below.



- i. Which bottle contains hard water? [1]

--

- ii. If you want to wash your clothes, which bottle of water would you choose? Why? [2]

- iii. Write **TWO** minerals present in bottle A. [1]

- c. Wangmo went for trekking from Samdrup Jongkhar to Merak and found that her weight had decreased. What would have happened to her mass? [1]

--

Question 6.

[9 Marks]

- a. You are provided with the following substances to make tea.



Water



Milk powder



Sugar



Tea leaves

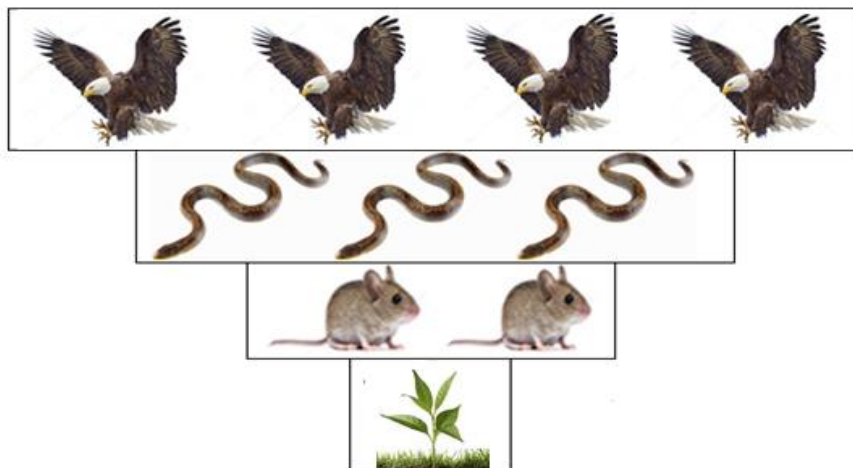
- i. Write down the steps to make tea. [2]

- ii. Identify one solute and one solvent from the above substances. [1]

- iii. Name **ONE** solute that you use at home. [1]

--

- b. Study the picture given below and answer the following questions.



- i. Is the food pyramid stable? Why? [2]

- ii. Draw a food chain having four organisms. [2]

--

- iii. Why are plants known as producers? [1]

Question 7. [9 Marks]

- a. Study the figure given below and answer the questions that follow.



- i. Air, water and sunlight are the basic needs for plants to grow.
What would happen to plants if there is no water? [1]

- ii. Name the nutrient that helps in the growth of green parts of a plant. [1]

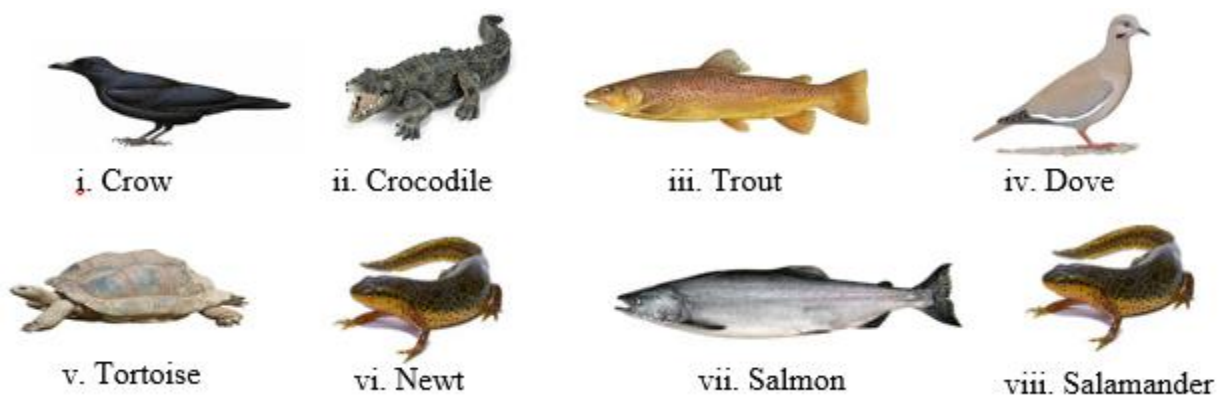
--

- b.i. An Indian origin coconut species is found growing on the river bank of another country.
What agent could be responsible for the dispersal of that coconut seed? [1]

--

- ii. What is the function of cotyledon in a seed? [1]

- c. Study the figure given below and complete the table. Write only the numbers in each category. [4]



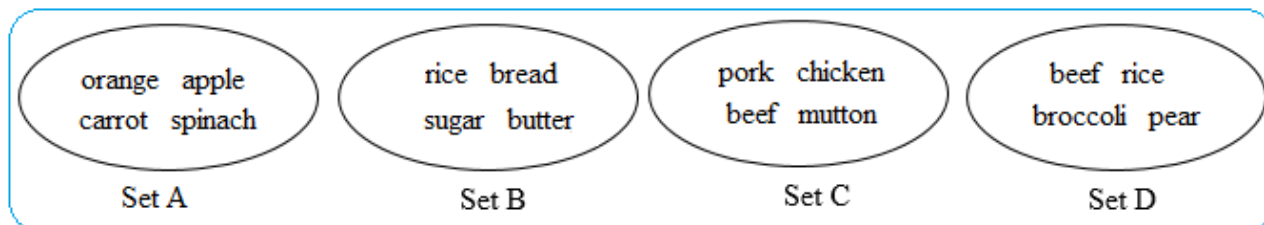
Bird	Fish	Reptile	Amphibian

- d. What is the relationship between mass and weight? [1]

--

Question 8.**[9 Marks]**

- a. Answer the following questions based on the sets of foods given below.



- i. What is a balanced diet? **[1]**

- ii. Which set of foods shows a balanced diet? **[1]**

--

- iii. Why is a balanced diet important? **[1]**

- iv. Which two sets of foods would you choose to eat more if you often fall sick?
Give reason. **[3]**

--

- b. Why are North Pole and South Pole covered with ice throughout the year? [1]

- c. Write **TWO** differences between latitude and longitude. [2]

Latitude	Longitude

Question 9. [9 Marks]

- a. How would you feel if there is no sunlight? [2]

- b. Why is the word AMBULANCE written in reversed order? [1]

- c. You are provided with two batteries, three bulbs, three switches and wires. Draw a parallel circuit using all the materials. [2]

--

- d. Why are magnets of different shapes and sizes? [1]

- e. Two stones of 3 kg and 6 kg are dropped from the top of a building. Which stone will hit the ground harder? Why? [2]

- f. What is the disadvantage of using nuclear fuel? [1]
