

Section A (30 marks)

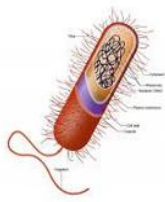
Question 1

Direction: For each question, there are four alternatives: A, B, C and D. Choose the most correct alternative and circle it. Do not circle more than ONE alternative. If there is more than one choice circled, NO score will be awarded. [10]

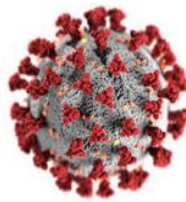
- i. Which of the figure below is a multi-cellular organism?



A. Fish



B. Bacteria



C. Covid-virus



D. Rock

- ii. Which of the following is NOT found in a plant cell?

A cell wall

C Mitochondria

B chloroplast

D centrosome

- iii. Dema is solving a mathematical problem. Which part of the brain is she using?

A Medulla oblongata.

C Cranium

B Cerebellum.

D Cerebrum

- iv. Which of the following nutritional deficiency causes xerophthalmia/night blindness?

A Iodine.

C Vitamin C

B Vitamin A.

D Calcium

- v. The part of the seed which develops into new plant is called as
- A seed coat. C embryo.
B radicle. D cotyledons.
- vi. Black necked cranes come to Bhutan only in winter from North. This adaptive behavior of animal is called
- A migration. C Hunting
B flying. D hibernation
- vii. The phenomenon in which the particles move from the region of its higher concentration region of lower concentration is called
- A gas pressure. C Diffusion.
B sublimation. D Condensation
- viii. Which of the following does not have fixed volume and shape?
- A Smoke. C Oil.
B Paper. D Water.
- ix. What is the main function of the human skeleton?
- A Producing red blood cells C Digesting food
B providing support and protection D Pumping blood
for the body
- x. Which of the following statement is correct?
- A All metals are ductile. C All non-metals are ductile.
B Generally, metals are ductile. D Some non-metals are ductile.

Question 2

Direction: Fill in the blanks with the appropriate word(s).

[7]

- i. Cutting of hair and nail is a _____ change.
- ii. The smallest and simplest unit of carbohydrate _____
- iii. Conversion of iodine crystals into gas upon heating is called _____
- iv. In an ecosystem, the inter-connection forming like a web of a spider is called _____
- v. The gradual changes which lead to formation of new species is called _____
- vi. The small opening in the leaves through which carbon dioxide diffuses is called _____
- vii. Scapula is a called as _____ bone.

Question 4

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.

[6]

Column I	Column II
i. Consume and break down dead and decaying organisms.	a. Chemical change
ii. Vaccine used for treating tuberculosis	b. Peas
iii. Hypogeal germination	c. Nerve
iv. The thread-like structure arising from the brain and spina cord.	d. Menopause
v. Stoppage of menstruation	e. Decomposer
vi. Mixing of baking soda and vinegar	f. BCG
	g. beans

- i.
- ii.
- iii.
- iv.
- v.
- vi.

Question 4.

Direction: Write TRUE or FALSE against each statement.

[7]

- i. In an atom, the electrons are found in the nucleus. (_____)
- ii. Non-metals may be solid, liquid or gas. (_____)
- iii. Anaerobic respiration takes place in the absence of oxygen. (_____)
- iv. Occurrence of difference among the individual of a species is called speciation. (_____)
- v. In matter, particles are always at rest. (_____)
- vi. The ability of an organism to blend in its surrounding is called camouflage. (_____)
- vii. Herbivores are first trophic level in an ecosystem. (_____)

Section B (40Marks)

Question 5

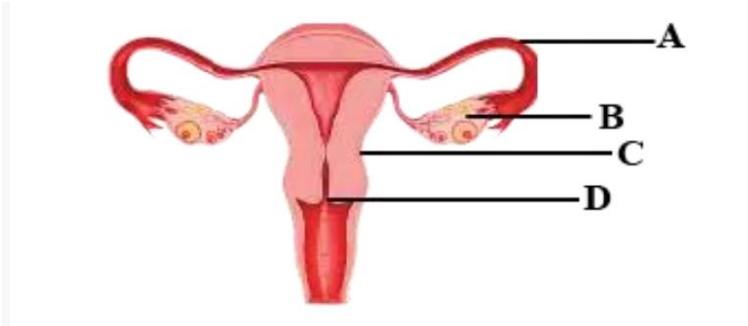
a. A person is showing the following symptoms: High fever, vomiting, headache, abdominal pain, and diarrhea.

i. What could be the disease the person is suffering from? [1]

ii. Suggest some ways to prevent this disease. [2]

b. Write **TWO** differences between metals and non-metals. [2]

c. Study the figure given below to answer questions



i. Name the parts labelled A, B, C and D. [2]

ii. Where does fertilization take place? [1]

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d. Deki and Mackey carried out an experiment using iodine solution, dropper and wheat flour. When he poured the iodine solution on the wheat flour, it changed into blue-black color.

Which group of nutrients is being tested in the above experiment? [1]

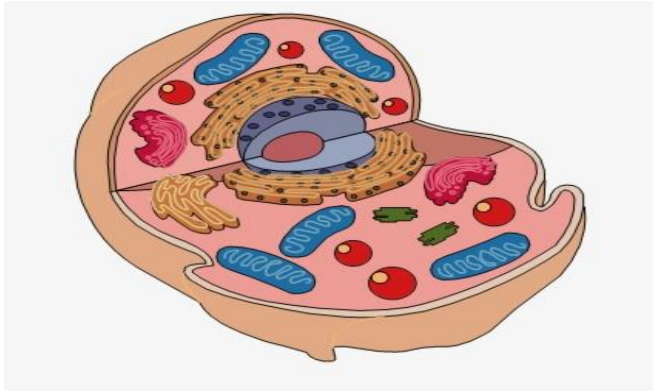
e. State **ANY TWO** statements of particle theory of matter. [1]

Question 6

a. Explain how a communicable disease is different from a non-communicable disease.

Mention **TWO** points of differences. [2]

b. Study the diagram below and answer the questions that follow:



i. Identify the type of cell shown above.

[1]

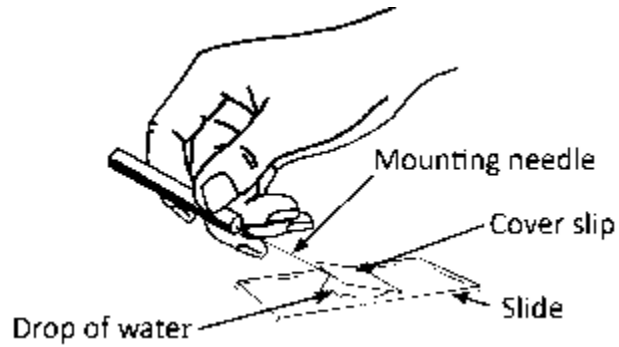
ii. How does it differ from the other type of cell? Write **TWO** points.

[2]

c. Write any **TWO** differences between physical and chemical change.

[2]

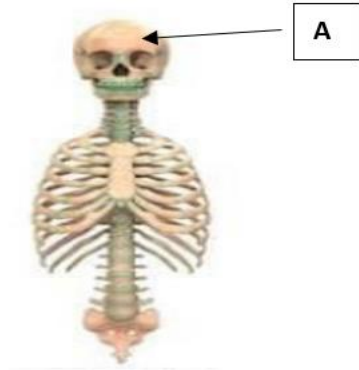
d. Why does the student need to make sure that the edge of the cover slip touches the drop of water before setting the coverslip onto the slide? [1]



e. Mention at least **TWO** human activities which disturb natural balance in nature. [2]

Question 7

- a. Look at the diagram below and answer the questions that follows:



- i. Name the bone labelled as **A** in the diagram above which protects the brain. [1]

- ii. Name the bone that protects the heart? [1]

b. Dorji was going for a walk, on the way he noticed a plant X with yellow leaves. He concluded that plant X lacked some nutrients, although it received enough sunlight, water and carbon dioxide.

- i. Name the nutrient deficient in plant X. [1]

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ii. How can Dorji improve the health of plant X? [2]

c. Our age-old social, cultural and spiritual beliefs about nature have helped conserve our biodiversity. Justify the statement with any **TWO** specific examples of such beliefs. [2]

d. **Draw** and **describe** the arrangement of particles in solid, liquid, and gas as per the particle theory. [3]

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Question 8

a. What is ecosystem?

[1]

b. An element with symbol 'Y' is represented as ${}_6Y^{12}$. What is the atomic number and mass number of this element?

[1]

c. If you leave a nail outside for a few days, it undergoes some changes. Identify the type of change and the conditions that brings changes.

[2]

d. Give **TWO** applications of gas pressure in everyday life.

[2]

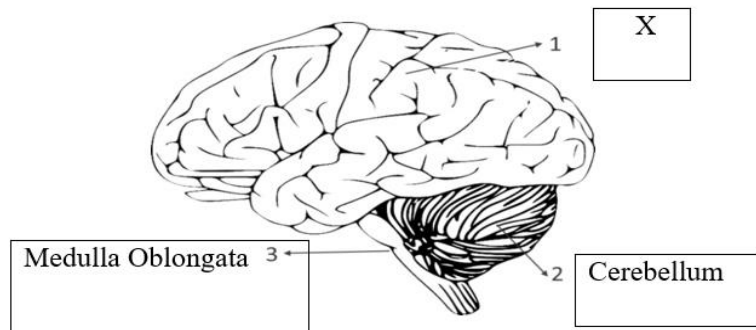
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e. Copper is one of the metals widely used for various purposes. Identify **ANY TWO** properties of copper which makes it widely used for different purposes. **[2]**

f. What are the raw materials used by plants for photosynthesis? **[1]**

g. The diagram below represents the parts of the brain .



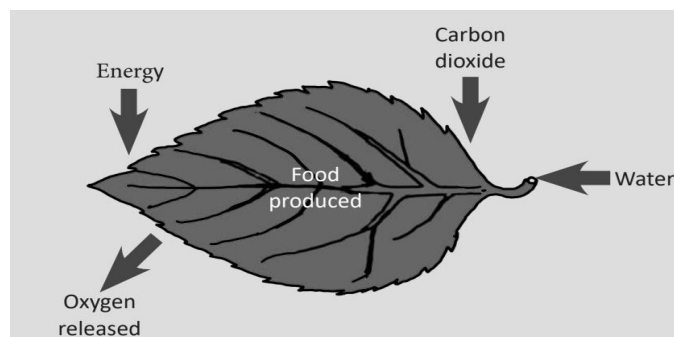
Write any **TWO** functions part labelled **X**.

[1]

Question 9

a. Based on figure below, frame a word equation of the process.

[2]



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b. Photosynthesis an example of chemical change. Give **TWO** reasons to support your answer [2]

c. Pema fell down from the staircase. He could neither walk properly nor remember what had happened to him after the fall. Which parts of the brain do you think were affected? [2]

d. Mention **One** advantage and disadvantage of epigeal germination. [2]

e. Write down the symbols for the following elements.

[2]

Element	Symbol	
a. Oxygen		
b. Copper		
c. Carbon		
d. Sodium		

ALL THE BEST