KV GHUMARWIN

EXAM – PT-2

SUBJECT- SCIENCE

CLASS-IX

Time : 90 minutes. **MM -40**

General Instructions:

- Draw diagrams wherever necessary.
- Write answer in your own words.

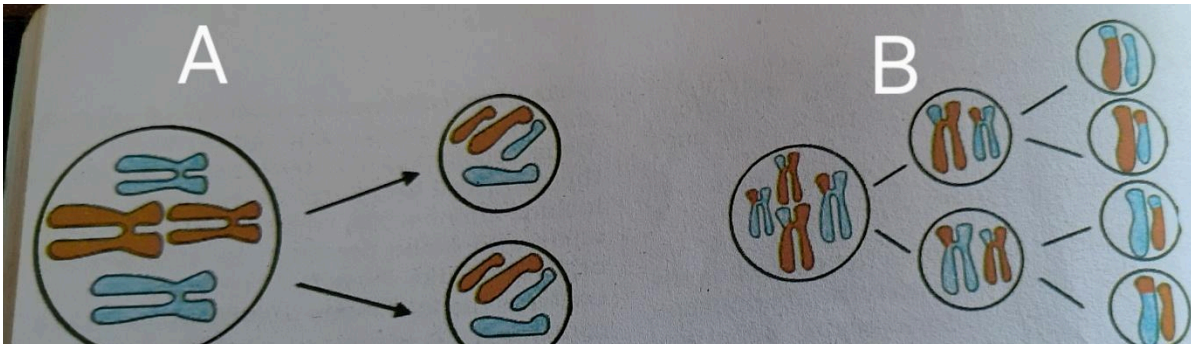
SECTION-A

1. **Answer the following questions: (10×1)**
   - **a)** Which of the following are subatomic particles: i) proton. ii) neutron
     iii) electron. iv) All of the given
   - **b)** What is valency of carbon ?
   - **c)** Atom is neutral in nature. True/False
   - **d)** Which of the following is called suicidal bag of the cell : i) lysosome. ii) ribosome
     iii) plastids. iv) none of the given
   - **e)** Explain the function of Nucleus of cell ?
   - **f)** Why we fall forward when breaks are applied in a moving bus ?
   - **g)** Which of the following will have more inertia car /truck🚚 **.**
   - **h)** State the third law of motion.
   - **i)** What will be the work done if 20 N force is applied on an object and it did not get displace at all.
   - **j)** A lamp consumes 1000 J of electrical energy in 10 s , What is its power.

SECTION – B

2. **Answer the following questions: (2×5)**
   - **a)** What are various energy transformation that occur when you are riding a bicycle ?
   - **b)** Reena says that the acceleration in an object could be zero even when several forces are acting on it . Do you agree with her ? Why ?
   - **c)** Differentiate between balanced and unbalanced forces.

d) Identity the types of cell division. Also mention which division is required for growth and repair.



e) Draw the electronic configuration of Sodium.

SECTION -C

3. Answer the following questions: (3×5)

a) Describe the Bohr's model of an atom.

Or

Explain the Rutherford model of an atom.

b) An animal solution is placed in a solution. After some time it gets swollen. What is the nature of solution . Also explain why it its swollen?

c) How is eukaryotic cell different from prokaryotic cell ?

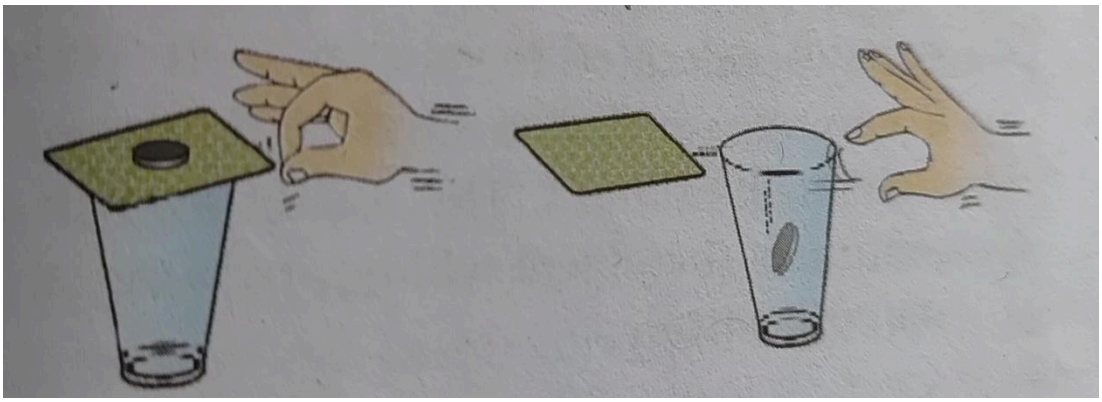
d) An object of mass 50 Kg is accelerated uniformly from a velocity of 5 m/s to 8 m/ s in 6 s. Calculate the initial and final momentum and also find the magnitude of the force exerted on the object.

e) Calculate the work required to be done to stop a car of 1500 Kg moving a velocity of 60 Km/ h ?

SECTION – D

4. Study the following diagram and answer the questions that follows: (5×1)

a) Which law is applicable in the above Give diagram?



b) Give the statement of the law which is visible in the given picture .

c) Write any two application of the law other than the mentioned in the picture