



# NCERT Class-9 Science Solutions: Chapter 5-The Fundamental Unit Of Life Part 1

## Multiple Choice Questions

### Question 1:

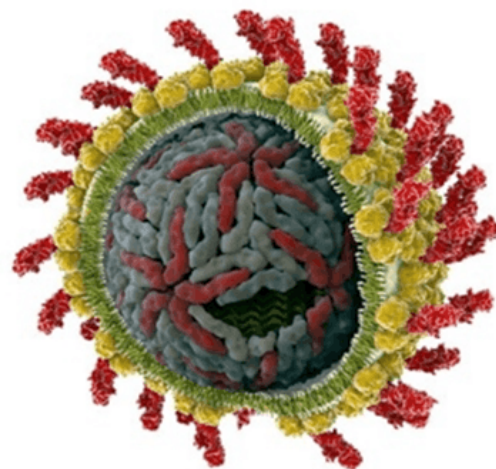
Which of the following can be made into crystal?

1. A Bacterium
2. An Amoeba
3. A Virus
4. A Sperm

**Answer: C**

## What is a virus?

- A microscopic infectious agent
- Prolific and found in almost all life forms
- Can only replicate inside the living cells of organisms
- The study of viruses is called virology
- Viruses infect host cells to reproduce
- Viruses can learn to adapt to immune responses
- Viruses are much more difficult to treat than bacteria



Hepatitis C: Cut away molecular model

*Image of Virus*

### Question 2:

Visit examrace.com for free study material, doorsteptutor.com for questions with detailed explanations, and "Examrace" YouTube channel for free videos lectures

A cell will swell up if

1. The concentration of water molecules in the cell is higher than the concentration of water molecules in surrounding medium
2. The concentration of water molecules in surrounding medium is higher than water molecules concentration in the cell
3. The concentration of water molecules is same in the cell and in the surrounding medium
4. Concentration of water molecules does not matter

**Answer: B**

**Question 3:**

Chromosomes are made up of

1. DNA
2. Protein
3. DNA and protein
4. RNA

**Answer: C**

# Chromosomes

- Made up of **deoxyribonucleic acid (DNA)**
- DNA stores all the information that a cell needs to grow and carry out vital activities
- This information is stored as sections of DNA (**genes**)
- Daughter cells produced by mitosis are **genetically identical** to the parent cell

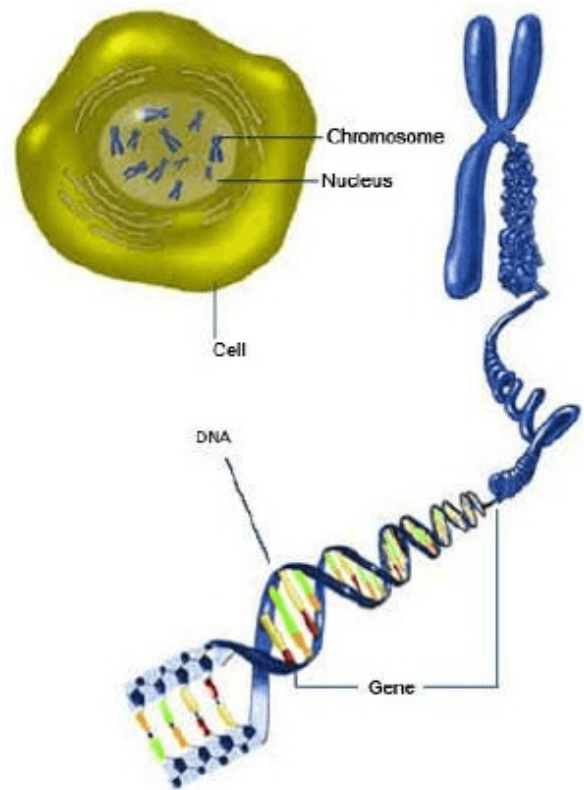


Image of Chromosomes

## Question 4:

Which of these options are not a function of Ribosomes?

1. It helps in manufacture of protein molecules
2. It helps in manufacture of enzymes
3. It helps in manufacture of hormones
4. It helps in manufacture of starch molecules
5. (i) and (ii)
6. (ii) and (iii)
7. (iii) and (iv)
8. (iv) and (i)

**Answer: C**

# Ribosomes

- **Function-** Makes protein out of amino acid. All cells need protein to function!
- **Analogy-** Ribosomes are like a Protein Factory
- **Found-** Animal & Plant Cells

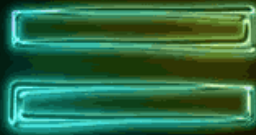
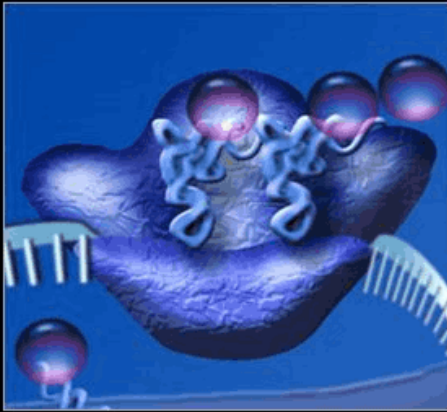


Image of Ribosomes

## Question 5:

Which of these is not related to endoplasmic reticulum?

1. It behaves as transport channel for proteins between nucleus and cytoplasm
2. It transports materials between various regions in cytoplasm
3. It can be the site of energy generation
4. It can be the site for some biochemical activities of the cell

**Answer: C**

## Question 6:

Following are a few definitions of osmosis

Read carefully and select the correct definition

1. Movement of water molecules from a region of higher concentration to a region of lower concentration through a semipermeable membrane

Visit [examrace.com](http://examrace.com) for free study material, [doorsteptutor.com](http://doorsteptutor.com) for questions with detailed explanations, and "Examrace" YouTube channel for free videos lectures

2. Movement of solvent molecules from its higher concentration to lower concentration
3. Movement of solvent molecules from higher concentration to lower concentration of solution through a permeable membrane
4. Movement of solute molecules from lower concentration to higher concentration of solution through a semipermeable membrane

**Answer: A**