



SHARDA VIDYA MANDIR
HOLIDAY HOMEWORK (2017-18)

CLASS IX

Last Date of Submission of Holiday Homework is 1 July 2017

MATHS

- 1 Check, whether 1 is the zero of the polynomial $9x^3 - 5x + 20$.
- 2 Show that $x = 1$ is a zero of the polynomial $3x^3 - 4x^2 + 8x - 7$.
- 3 Find the remainder when $6x^3 - 5x^2 + 2x - 9$ is divided by $(x - 1)$.
- 4 Find the zeroes of the quadratic polynomial $x^2 - 4x + 3$.
- 5 Factorise: $64a^3 - 27b^3 - 144a^2b + 108ab^2$
- 6 If $p = 2 - a$, then show that $a^3 + 6ap + p^3 - 8 = 0$.
- 7 If $x + y + z = 6$, $xy + yz + zx = 11$. Find the value of $x^2 + y^2 + z^2$
- 8 Divide the polynomial $3x^4 - 4x^3 - 3x - 1$ by $x - 1$.
- 9 Factorise the polynomial $x^3 - 23x^2 + 142x - 120$.
- 10 Find a and b , if $x + 1$ and $x + 2$ are the factors of $x^3 + 3x^2 - 2ax + b$.
- 11 What is the value of k , if $x - 3$ is a factor of the polynomial $k^2x^3 - kx^2 + 3kx - k$?
- 12 Write the expanded form of $(3x + 2y - z)^2$.
- 13 Factorize the following $8a^3 + b^3 + 12a^2b + 6ab^2$.
- 14 Factorize the following $x^3 + x - 3x^2 - 3$.
- 15 Factorize $a^2 + b^2 + 2(ab + bc + ca)$.

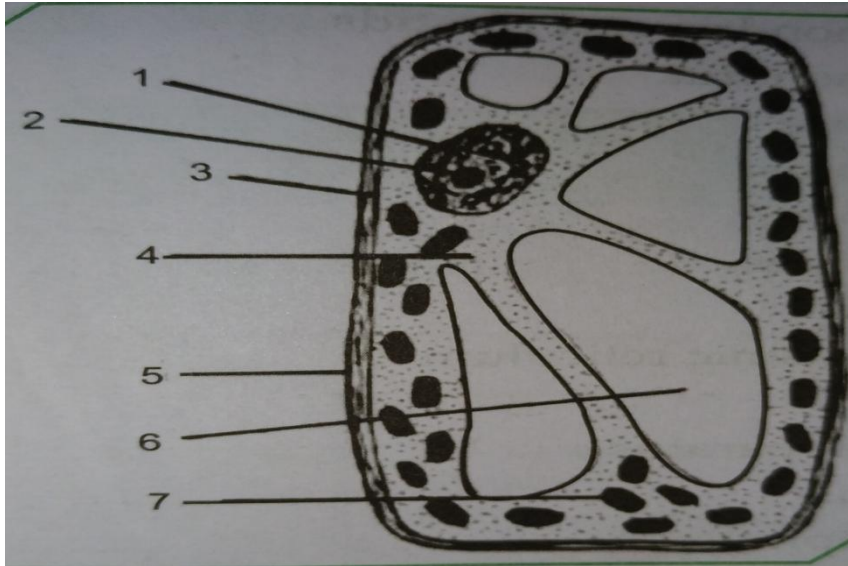
ENGLISH

1. Creatively make a cover page for your novel – 'Three men in a Boat'
2. Write the character sketch of the following characters in it. (200 words)
 - a) George
 - b) Harris
 - c) Montmorency
 - d) author – Terome .K. Terome

SCIENCE (Biology)

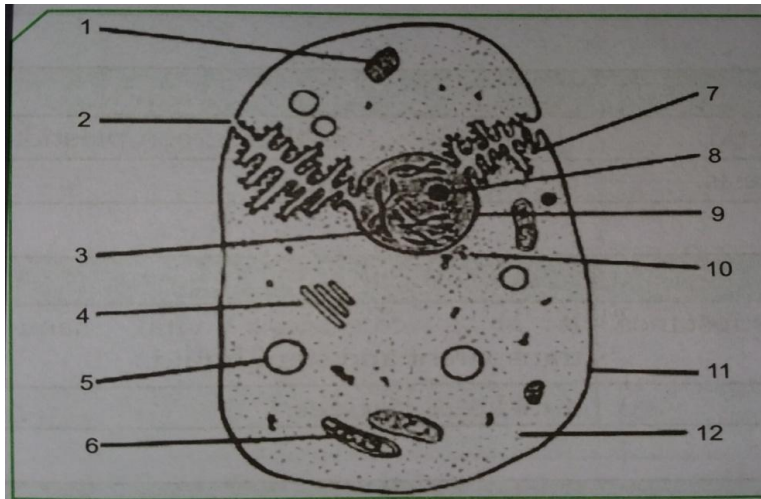
Q1. Answer the following questions based on the diagram given below.

- a) Identify the diagram.
- b) Label 1 – 7.
- c) Give any two unique characteristics about the diagram.



Q2. Answer the following questions based on the diagram given below.

- a) Identify the diagram.
- b) Label 1 – 7.
- c) Give any two unique characteristics about the diagram



- d) Read the chapter – 5 (Cell-Fundamental units of life) and frame 10 high order thinking fillups with answer.

CHEMISTRY – Worksheet

HINDI - Solve the given worksheet

SANSKRIT

i) अपठित अनुच्छेद (प्रथम सत्राय) in language book

ii) पत्र (प्रथम सत्राय) in language book

iii) अपठित पद्यांश (प्रथम सत्राय) in language book

iv) चित्र वर्णन (प्रथम सत्राय) in language book

SOCIAL SCIENCE

- **Project (5 Marks)**

Prepare a project file (10-15 pages) on WOMEN'S ROLE IN HISTORY.

Choose 1 woman from each field and document their lives, writings and their contributions to nation. The women are to be chosen from

- Philosophers
- Revolutionaries
- Political workers
- Lawyers
- Doctors etc. of the 19th and 20th century.

- P.P.T (5 marks)

Prepare a slide show/PPT on "How Disaster can be managed?" emphasizing three different phases (Before, during and after) of any one (Man-made or Natural) disaster.