<u>COMPUTER</u>

Do the exercises of the following chapters given in practical booklet.

1. Python Fundamentals
2. Data Handling

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<u>Physics</u>

Do the exercises from NCERT of the following chapters:

1 – Units and measurements

2 – Motion in a straight line

3 – Motion in a plane

Solve the following numericals-

1. State the principle of homogeneity of dimensions. State the limitations of dimensions.
2. Discuss the main type of errors in a physical measurement.
3. Name two Physical quantities which have same dimensions and different units and two physical quantities having different dimensions and same unit.
4. Do the significant figures change if the physical quantity is measured in different system of unit? Give example
5. A ball is thrown vertically upwards with a velocity of 20 m/s from the top of a building. The height of a point from where the ball is thrown is 25m above the ground.
   - How high the ball will rise?
   - How long will it be in air before it hits the ground?
6. Discuss the motion of object under free fall. Neglect air resistance.
7. Plot the graph of following under free fall
   - Variation of acceleration with time.
   - Velocity with time
   - Distance with time.
8. The period of oscillation of simple pendulum is $T = 2\pi\ l/g$ where 'l'is the length of pendulum and 'g ' is acceleration due to gravity. Show dimensionally that the above formula is incorrect. Also rectify the formula dimensionally.
9. Give any four rules to determine the significant figures with example.
10. The mass of the object is measured to be 4.237g and its volume is measured to be 2.51 cm3. Then find the density of a substance with correct significant figure.
11. What do you mean by least count of an instrument?
12. What is Vernier Callipers? Sate it's principle, least count, zero error and it's type.
13. What is Screw Gauge? State it's least count, pitch of screw gauge, working and zero error.
14. What do you mean by backlash error?
15. If force(F), velocity(V) and time (T) are chosen as fundamental quantities then what will be the dimensions of mass, time , surface tension, universal Gravitational constant.

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<u>CHEMISTRY</u>

1. Prepare an investigatory project on any of the following topics:
- Applied chemistry in healthcare

- Biochemistry
- Chemistry in food technology
- Chemistry in FMCG(fast moving consing goods)
- Green Chemistry
- Latest advancements in Chemistry.

Note: The Content of the concerned topic must be collected from newspaper, books and magazines. The relevant cuttings of newspapers and magazines should be pasted in the file.

2. Do all the numerical questions of chapter 1 (some basic concepts of chemistry) from NCERT in chemistry notebook.

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MATHS

Do the NCERT exercises of the following chapters:

1. Sets
2. Relations and Functions
3. Trigonometric Functions
4. Linear Inequalities

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BIOLOGY

Do NCERT Exemplar Questions of following topic in separate notebook

1. LIVING WORLD
2. BIOLOGICAL CLASIFICATION
3. PLANT KINGDOM
4. ANIMAL KINGDOM

2. Prepare a working/ 3-D innovative model for science exhibition (model should be based on an innovative solution for any problem of your society/environment, it should be cost- effective and ecofriendly with no side effects)

3. Innovative corner: Bring an innovative idea for "**INSPIRE AWARD SCHEME**"

4. Complete your practical record as instructed in class.

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ENGLISH

1) You are Karan/ Karuna a leading lawyer practising in Surat. You want to buy an independent house at City Light Road to be used as office cum residence. Draft an advertisement in about 50 words for the classified columns of a local newspaper.

2) Design an attractive and instructive poster on behalf of the Delhi Police to educate and warn the people against any suspicions or unclaimed objects in public places / trains/ buses to avert bomb blasts.

II. 1) You have lost your leather wallet containing your Examination Entry Ticket for Class XII while travelling by bus from Banashankari to MG Road in Bangalore. Write a notice in not more than 50 words. You are Pranav / Parveen, 12 Gandhi Road, Bangalore.

2) You are Ratna Pathak a female activist. Design a poster highlighting the 'Evils of Dowry' in 50 words.

III.1) You are a manger of ABC Ltd. Sector 30 Gurgaon. You need an efficient data entry operator for your office. Write an advertisement for the 'Situation Vacant' column of a local daily.

2) You are Praveen / Pari, Secretary of the NGO 'Help the Needy'. Design a poster to be displayed at prominent places in the city asking for people to donate their organs after death. Give details and contact details. (50 words)

- **Make a project on: MOTHER's DAY**
1) About the author
2) Main theme of the play
3) Summary of the play
4) Character sketch of the different characters
5) Message of the play
6) Write a poem for your Mother
7) Design the cover for your project

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हिंदी

1. रचनात्मक लेखन

क. जब मैं विद्यालय से लौटते समय जाम में फंस गया ....वाक्य को आधार बनाकर लगभग 120 शब्दों   में रचनात्मक लेख लिखें।

ख. 'देश प्रेम की भावना श्रेष्ठ भावना' विषय पर लगभग 120 शब्दों में रचनात्मक लेख लिखें।

2. परियोजना कार्य

क. पत्रकारिता के विविध आयाम

ख. स्वर कोकिला लता मंगेशकर

ग. कथा सम्राट मुंशी प्रेमचंद

निम्न में से किसी एक विषय पर आकर्षक, चित्रात्मक परियोजना कार्य करें।