

**GOLAYA PROGRESSIVE PUBLIC SCHOOL, PALWAL**  
**HOLIDAY HOMEWORK FOR CLASS XII SCIENCE (SESSION: 2017-18)**

**ENGLISH**

1. Read the novel 'The Invisible Man' and write the questions answers given in the end of each chapter of the novel.
2. Read the lesson No. 3 "Deep Water" of Flamingo and find out the meanings of difficult words in the Dictionary and write them in the notebook.

**PHYSICS**

1. Complete your activity file with the following activities. Following are the list of activities to be included:-
  - i. To draw the diagram of a given open circuit comprising at least a battery, resistance/rheostat, key, ammeter, voltmeter. Mark the components that are not connected in proper order and correct the circuit and also the circuit diagram
  - ii. To assemble the components of a given electrical circuit.
  - iii. To assemble a household circuit comprising three bulbs, three (on/off) switches, a fuse and a power source.
  - iv. To measure resistance, voltage, current and check continuity of a given circuit using multimeter.
  - v. To identify a diode, an LED, a transistor, an IC, a Resistor and a capacitor from a mixed collection of such items.
  - vi. To observe refraction and lateral deviation of a beam of light incident obliquely on a glass slab.
  - vii. To observe diffraction of light due to a thin slit.
  - viii. To study the nature and size of the image formed by a convex lens and a concave mirror on a screen by using a candle and a screen (for different distances of the candle from the lens/mirror).
2. Search and prepare investigatory project (soft copy )on any one:-
  - i. To study various factors on which the internal resistance/EMF of a cell depends.
  - ii. To design an appropriate logic gate combination for a given truth table.
  - iii. To investigate the relation between the ratio of output and input voltage and number of turns in the secondary coil and primary coil of a self designed transformer.
  - iv. To investigate the dependence of the angle of deviation on the angle of incidence using a hollow prism filled one by one with different transparent fluid.
  - v. To estimate the charge induced on each of the two identical Styrofoam balls suspended in a vertical plane by making use of coulomb's law.
  - vi. To set up a common base transistor circuit and to study its input and output characteristics and to calculate its current gain.
  - vii. To construct a switch using a transistor and to draw the graph between the input and output voltage and mark the cutoff, saturation and active regions.
3. Complete assignment no. 9 and 10.

## **CHEMISTRY**

1. Make a project report on scientific investigations involving laboratory testing and collecting information from other sources. You can include the pictures while doing the research work or the relevant images related to the topics. It is compulsory to add case study or some data based information in your project report. You can refer the curriculum for class XII Chemistry from [cbseacademics.nic.in](http://cbseacademics.nic.in) for few suggested topics for the project report or you can also take any topic related to your syllabus.
2. Practice all the types of numerical from Ch 1,2, 3 and 4.
3. Learn the important topics which are regularly repeated from Ch 5 and 6.
4. Make a list of questions from different sample papers ([cbseguide.com](http://cbseguide.com)) and solve them in your assignment notebook. (Ch 1-6,15)
5. Practice the diagrams from Ch -5, 6.

## **BIOLOGY**

1. Revise Chapter 1 - 6
2. Draw following diagrams
  - ✓ T.S. of microsporangium
  - ✓ Development of pollen grain
  - ✓ A typical anatropous ovule
  - ✓ Development of embryo sac
  - ✓ Development of dicot embryo
  - ✓ L.S. of embryo of grass
  - ✓ Sectional view of seminiferous tubule
  - ✓ Structure of a sperm
  - ✓ Section view of ovary
  - ✓ Ovum
  - ✓ Transport of zygote upto implantation
  - ✓ Double stranded polynucleotide chain
  - ✓ Structure of nucleosome
  - ✓ Replication fork of DNA
  - ✓ Harshay and Chase Experiment
  - ✓ t-RNA adaptor molecule
  - ✓ Meselson and Stahl Experiment
  - ✓ Transcription unit
  - ✓ Lac Operon
3. Preparation of investigatory project
4. Solve the following questions
  - a) Explain the significance of meiocytes in a diploid organism.
  - b) Why is breast-feeding recommended during the initial period of an infant's growth? Give reasons.
5. Reproductive and Child Healthcare (RCH) programmes are currently in operation. One of the major tasks of these programmes is to create awareness amongst people about the wide range of reproduction related aspects. As this is important and essential for building a reproductively healthy society.
  - a) "Providing sex education in schools is one of the ways to meet this goal." Give four points in the support of your opinion regarding this statement.
  - b) List any two 'indicators' that indicate a reproductively healthy society.
  - c) Explain the post-pollination events leading to seed production in angiosperms.

- d) List the different types of pollination depending upon the source of pollen grain.
- e) Briefly explain the events of fertilization and implantation in an adult human female.
- f) Comment on the role of placenta as an endocrine gland.
- g) Explain the importance of syngamy and meiosis in a sexual life cycle of an organism

### **MATHEMATICS**

1. Prepare your own question bank for practice based on last 5 years CBSE Examinations. It's mandatory to take these questions chapter-wise and mention the year of Exam.
2. Make a list of all formulae covered in 5 chapters and learn and practise them.
  - Matrices
  - Determinants
  - Inverse Trigonometric Functions
  - Continuity & Differentiability
  - Applications of Derivatives
3. Study the topics:
  - Relations & Functions
  - Vector Algebra
  - Three Dimensional Geometry
4. Solve the problems of Miscellaneous Exercises from all 5 chapters of NCERT (Mentioned Above) and examples given just before these exercises.

### **COMPUTER SCIENCE**

Revise following Units thoroughly and practice the questions given in the Assignments:

- Unit 3: Database Concepts and SQL
- Unit 4: Boolean Algebra
- Unit 5: Networking Concepts