GYAN MANDIR PUBLIC SCHOOL

HOLIDAYS HOME WORK (2024-25)

CLASS-XI B

IMPORTANT INSTRUCTION

- **Academic Holiday Homework of all the subjects is to be done by each and every student.**
- **Revise the portion for the subjects for upcoming Periodic test-I**
- **Open Day Project/ models/ scrap file etc are to be done as per your roll no. as given below:**

SUBJECT	ROLL No.
ENGLISH	1, 2, 3, 4, 5
CHEMISTRY	33, 35, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47
PHYSICS	14, 15, 16, 17, 18, 19, 20
MATHS	21, 22, 24, 26, 27, 28, 29
BIOLOGY	23, 25, 30, 31, 32, 34, 36, 38
COMPUTER SCIENCE	6, 7, 8, 9, 10, 11, 12, 13

ACADEMIC HOLIDAYS' HOMEWORK

SUBJECT: ENGLISH

1. Prepare an attractive PPT on Tenses (Present, Past and Future)

2. Make a DIY Album of your childhood memories with a beautiful cover page (minimum 5-6 pages)

3. Diary entry: Granny's Talk/Grandpa's Talk:- Students to visit their grandparents and help them remember about their past, their long lost homelands and how they coped to a new country after partition. Students to refer to the old age songs, homemade recipes of their grandparents, their talents of the time etc. Record your feelings, experience and learnings on the basis of your research in the form of a dairy entry (word limit: 150-200 words)

4. Advertisement: Imagine that you are offering a Summer camp of 20 days under the title "MASTI KI PATHSHALA". Mention all the attractions to grab admissions, offer interesting and innovative courses for a particular age group, timings, fee structure etc. Prepare a creative pamphlet for the same.

NOTE: The project must be submitted with Student's Name, Class and Section with an innovative Title page.

SUBJECT: PHYSICS

General Instruction

- **Prepare for the periodic test I: Revise Ch1 to ch-3**
- **Complete practical file(EXPERIMENT FILE & ACTIVITY FILE) in your practical files already discussed in lab.**
- **Prepare Open day project by using waste materials based on SDG-6& 7 as given below.**

Academic Homework

A. Complete the following practicals in your practical files.

1.SECTION–A

Experiments

1. To measure diameter of a small spherical/cylindrical body and to measure internal diameter and depth of a given beaker/calorimeter using Vernier Callipers and hence find its volume.

2. To measure diameter of a given wire and thickness of a given sheet using screw gauge.

3. To determine volume of an irregular lamina using screw gauge.

4. To determine radius of curvature of a given spherical surface by a spherometer.

5. Using a simple pendulum, plot its L-T2 graph and use it to find the effective length of second's pendulum.

Activities

1. To make a paper scale of given least count, e.g., 0.2cm, 0.5 cm.

2. To determine mass of a given body using a metre scale by principle of moments.

3. To plot a graph for a given set of data, with proper choice of scales and error bars.

4. To measure the force of limiting friction for rolling of a roller on a horizontal plane.

SECTION–B

Experiments

1. To determine Young's modulus of elasticity of the material of a given wire.

2. To find the force constant of a helical spring by plotting a graph between load and extension.

3. To determine the surface tension of water by capillary rise method.

4. To determine the coefficient of viscosity of a given viscous liquid by measuring terminal velocity of a given spherical body.

5. To study the relationship between the temperature of a hot body and time by plotting a cooling curve.

Activities

1. To observe change of state and plot a cooling curve for molten wax.

2. To observe and explain the effect of heating on a bi-metallic strip.

3. To note the change in level of liquid in a container on heating and interpret the observations.

4. To study the effect of detergent on surface tension of water by observing capillary rise.

B. Do the following assignment in your notebook:

Chapter 1: Units and Measurements

Short Answer Questions:

1. Define the term 'dimensional formula'. Give an example.

2. Explain the term 'accuracy' in the context of measurements.

3. What is the difference between 'accuracy' and 'precision' in measurements?

Long Answer Questions:

1. Discuss the significance of dimensional analysis in physics. Provide examples to illustrate its application.

2. Describe the concept of significant figures and its importance in expressing measurements accurately.

Chapter 2: Motion in a Straight Line

Short Answer Questions:

1. Define the term 'displacement' in the context of motion.

2. What is the difference between 'average velocity' and 'instantaneous velocity'?

3. Explain the concept of 'acceleration' in motion.

Long Answer Questions:

1. Discuss the graphical representation of motion with distance-time and velocity-time graphs. Provide examples to illustrate each.

2. Explain the concept of relative velocity with suitable examples.

3. Describe the equations of motion for uniformly accelerated motion and derive the equation for displacement in terms of initial velocity, final velocity, acceleration, and time.

SUBJECT: CHEMISTRY

General Instruction

- **Prepare for the periodic test I**
- **Complete practicals in your practical files already discussed in labs.**
- **Prepare Open day project by using waste materials.**

Academic Homework

Revise the Chapter from Ncert Book and Exemplar
Ch. 1 The Basic Concepts of Chemistry

Ch. 2. Structure of The Atom

Complete the following practicals in your practical files.

a) To test the presence of carbonate in given salt.

b) To test the presence of ammonium in given salt.

c) To test the presence of sulphite in given salt.

d) To test the presence of lead in given salt.

e) To test the presence of nitrite in given salt.

Do the following assignment in your notebook:

1. What will be the molarity of a solution, which contains 5.85 g of NaCl(s) per 500 mL?

(a) 4 mol L-1 (b) 20 mol L-1 (c) 0.2 mol L-1 (d) 2 mol L -1

2. If 500 mL of a 5 M solution is diluted to 1500 mL, what will be the molarity of the solution obtained?

(a) 1.5 M (b) 1.6 M (c) 0.017 M (d) 1.59 M

3. The number of atoms present in one mole of an element is equal to Avogadro number. Which of the following elements contains the greatest number of atoms?

(a) 4gHe (b) 46gNa (c) 0.40 g Ca (d) 12 g He

4. What is the mass per cent of carbon in carbon dioxide?

(a) 0.034% (b) 27.27% (c) 3.4% (d) 28.7%

5. Volume of a solution changes with change in temperature, then, will the molality of the solution be affected by temperature? Give reason for your answer.

6. The reactant which is entirely consumed in reaction is known as limiting reagent. In the reaction 2A + 4B —> 3C + 4D, when 5 moles of A react with 6 moles of B, then

(i) which is the limiting reagent?

(ii) calculate the amount of C formed.

7. Define the law of multiple proportions. Explain it with two examples. How does this law point to the existence of atoms?

8. A box contains some identical red coloured balls, labeled as A, each weighing 2 grams. Another box contains identical blue coloured balls, labeled as B, each weighing 5 grams. Consider the combinations AB, AB2, A2B and A2B3 and show that law of multiple proportions is applicable.

9. The empirical formula and molecular mass of a compound are CH20 and 180g respectively. What will be the molecular formula of the compound?

10. A vessel contains 1.6 g of dioxygen at STP (273.15 K, 1 atm pressure). The gas is now transferred to another vessel at constant temperature, where pressure becomes half of the original pressure. Calculate

(i) volume of the new vessel.

(ii) number of molecules of dioxygen.

SUBJECT: BIOLOGY

General Instruction

- **Prepare for the periodic test I**
- **Draw neat and labeled diagrams of the given practicals in your practical files.**
- **Prepare Open day project by using waste materials.**

Academic Homework

Revise the Chapter

Ch. 1 The Living World: (NCERT Pg 3-9) Binominal nomenclature, Classification, Taxonomy, Taxonomic hierarchy

Ch. 2 Biological Classification: (NCERT Pg 10-22) Five Kingdom Classification, Classification and characteristics of five kingdoms and their examples, Virus, Viroids, Prions, Lichens

Ch. 3 Plant Kingdom: (NCERT Pg 23-36) Classification and characteristics of Algae, Bryophytes, Pteridophytes, Gymnosperms, Angiosperms.

Do the following assignment in your notebook:

Q 1. A dikaryon is formed when

(a) Meiosis is arrested (b) The two haploid cells do not fuse immediately

(c) Cytoplasm does not fuse (d) None of the above

Q 2. Difference between virus and viroid is

(a) Absence of protein coat in viroid but present in virus

(b) Presence of low molecular weight RNA in virus but absent in viroid

(c) Both (a) and (b)

(d) None of the above

Q 3. Holdfast, stipe and frond constitute the plant body in case of

(a) Rhodophyceae (b) Chlorophyceae

(c) Phaeophyceae (d) All of the above

Q 4. A prothallus is ‘ ‘

(a) A structure in pteridophytes formed before the thallus develops

(b) A sporophytic free living structure formed in pteridophytes

(c) A gametophyte free living structure formed in pteridophytes

(d) A primitive structure formed after fertilization in pteridophytes

Q 5. If the diploid number of a flowering plant is 36, what would be the chromosome number in its endosperm?
(a) 36 (b) 18 (c) 54 (d) 72

Q 6. Diatoms are also called as 'pearls of ocean', why? What is diatomaceous earth?

Q 7. What observable features in Trypanosoma would make you classify it under Kingdom Protista?

Q 8. What is the principle underlying the use of cyanobacteria in agricultural fields for crop improvement?

Q 9. How are male and female gametophytes of pteridophytes and gymnosperms are different from each other?

Q 10. Gametophyte is a dominant phase in the life cycle of a bryophyte. Explain.

Complete the following practicals in your practical files.

1. Parts of a compound microscope.

2. Specimens/slides/models and identification with reasons - Bacteria, *Oscillatoria, Spirogyra, Rhizopus*, mushroom, yeast, liverwort, moss, fern, pine, one monocotyledonous plant, one dicotyledonous plant and one lichen.

3. Virtual specimens/slides/models and identifying features of - *Amoeba, Hydra*, liverfluke, *Ascaris*, leech, earthworm, prawn, silkworm, honey bee, snail, starfish, shark, rohu, frog, lizard, pigeon and rabbit.

SUBJECT: MATHEMATICS

1. Do the following activities in your Maths Activity file . (Activities will be sent in Maths group)
   (i) To verify Distributive law for three given non empty sets A,B and C, that is
   $$A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$$
   (ii) To distinguish between a relation and a function.
   (iii) To verify the relation between degree measure and the radian measure of an angle.
   (iv) To plot the graph of sinx , sin2x , 2 sinx and sin x/2 on the same coordinate axes.

SUBJECT: COMPUTER SCIENCE

- Revise Chapter – 1 , 2 and 3 &4
- Develop a mobile Application on SDG-2 Zero Hunger
- Do Worksheets

Worksheet- 1

1. Name the software required to make a computer functional. Write down its two

primary services.

2. What is the need for secondary memory?
3. Draw the block diagram of a computer system. Briefly write about the functionality of each component.
4. Why is primary memory termed as "destructive write" memory but "non-destructive" read memory?
5. Discuss the role of utility software in the context of computer performance?
6. Write equivalent memory units of the following:
   - 596 MB = _____ KB
   - 14 PB = _____GB
   - 135 YB = _____ PB
   - 10000 MB = ____ PB
   - 1000000 KB = __GB
7. What is the need of RAM? How does it differ from ROM?
8. Name the input or output device used to do the following:
   a) To output audio
   b) To enter textual data
   c) To make hard copy of a text file
   d) To display the data or information
   e) To enter audio-based command
   f) To build 3D models
   g) To assist a visually-impaired individual in entering data
9. What is Operating system. Write any three functions of Operating System.
10. SRAM is faster memory than DRAM. (True/False)

Worksheet-2

Write base values of binary, octal and hexadecimal number system.

1. Write full form of ASCII and ISCII.
2. Write the following conversions.
   (i) (514)8 = (?)10 (iv) (4D9)16 = (?)10
   (ii) (220)8 = (?)2 (v) (11001010)2 = (?)10
   (iii) (76F)16 = (?)10 (vi) (1010111)2 = (?)10
3. Do the following conversions from decimal number to other number systems.
   (i) (54)10 = (?)2 (iv) (889)10 = (?)8
   (ii) (120)10 = (?)2 (v) (789)10 = (?)16
   (iii) (76)10 = (?)8 (vi) (108)10 = (?)16
4. Express the following octal numbers into their equivalent decimal numbers.
   (i) 145 (ii) 6760 (iii) 455 (iv) 10.75
5. Express the following decimal numbers into hexadecimal numbers.
   (i) 548 (ii) 4052 (iii) 58 (iv) 100.25
6. Express the following hexadecimal numbers into equivalent decimal numbers.
   (i) 4A2 (ii) 9E1A (iii) 6BD (iv) 6C.34
7. Convert the following binary numbers into octal and hexadecimal numbers.

(i) 1110001000 (ii) 110110101 (iii) 1010100 (iv) 1010.1001

8. Convert the following binary numbers into octal and hexadecimal numbers.
   (i) 1110001000 (ii) 110110101 (iii) 1010100 (iv) 1010.1001
9. Write binary equivalent of the following octal numbers.
   (i) 2306 (ii) 5610 (iii) 742 (iv) 65.203
10. Write binary representation of the following hexadecimal numbers.
    (i) 4026 (ii) BCA1 (iii) 98E (iv) 132.45
11. How does computer understand the following text? (hint: 7 bit ASCII code).

SUBJECT: PHYSICAL EDUCATION

General Instructions:

i. All the project are compulsory to do.
ii. Do the project as per given instructions.
iii. Project should be neat, labeled, presentable and innovative.

Academic work

Q1. Make a project file on any Individual game specialization including the following topics

- History of game specialization
- Skills and Techniques of game specialization
- Latest rules & regulation of game. specialization
- Dimension & specification of the field/court/ground
- Terminologies of the game specialization
- Famous sports personalities
- Important tournaments of specialization game

SUBJECT: PAINTING

- Prepare 8 paintings on A2 size sheet for portfolio
- Prepare 3 paintings on folk art on A2 size sheet
- Prepare a roller chart on one topic ("Save Earth" or "Life On Earth")

SUBJECT: PSCYCOLOGY

1.Complete the "Introduction of psychological testing" in practical File.

2.Explore various Career options with Psychology-

Give a detail description of the renowned colleges/institutes available in the country for various undergraduate and postgraduate courses. Write about the career options available with each course.

WORKSHEET:

1) "Adolescence is a period of making choices pressure careers building of self and uncertainties". Describe the psychological changes and the problems that an adolescent may go through during this period of life.
2) What role does Humanistic view play within the development of an individual's self and why?

Case study question-

Read the case and answer the questions that follow.

A young child hears the bell of an ice cream truck approaching in the summer time. This truck has come to her neighborhood every day for weeks but usually comes earlier in the afternoon. This makes her salivate and get excited. She then runs into the house and asks her dad for some money but her father refuses to give her any money since it is close to dinner. She then starts to cry and has a tantrum. After a few seconds, her father gives her the money in order to stop her from crying. This seems to happen on a daily basis.

-Identify the classical conditioning present in the above situation.

विषय -हिंदी

सामान्य निर्देश-

- **संपूर्ण कार्य करना आवश्यक हैI**
- **संपूर्ण कार्य दिए गए निर्देशानुसार करेंI**
- **सुलेख सुंदर लिखाई में करेंI**
- **ओपन डे प्रोजेक्ट के लिए आकर्षक मॉडल ,फ्लैश कार्ड, सूचना कार्ड निर्देशानुसार बनाइए।**

अकादमी कार्य (शैक्षणिक कार्य)

- **नोट- आवधिक परीक्षा के लिए कक्षा में करवाए गए पाठ्यक्रम का अभ्यास एवं दोहरान कार्य करें I**
- **ओपन डे प्रोजेक्ट एस.डी.जी 4 तथा एस.डी.जी 14पर आधारित हैI**

समावेशी शिक्षा पर आधारित माडल एवं जूट बैग परसमावेशी शिक्षा पर स्लोगन लिखिए

OPEN DAY PROJECT AND ACTIVITIES -BASED ON SDG

SUBJECT: ENGLISH

Open Day Project
SDG 10: Addressing **inequalities** within our country
PROJECT THEME : AFFINITY (consider equal and show concern)
PROJECT ACTIVITY: **SURVEY** and **PPT**
Prepare a form and record any 5 entries of underprivileged/ special people/ children on the basis of their age, gender, disability, region, religion and their sources of income. (You can add more particulars in your form keeping SDG 10 in mind).
Do one noble deed for any of them staying in your neighbourhood/ city and get your picture clicked while doing this activity. Also, add a short note about your feelings in your PPT

SUBJECT: PHYSICS

OPEN DAY PROJECT BASED ON SDG-6 OR 7

To make working model of Solar Cooler

SUBJECT: CHEMISTRY

Open Day Project
SDG goals 6 and 7
Prepare a working innovative model on energy transformation or water utilisation.

SUBJECT: BIOLOGY

Open Day Project
SDG Goal 6 and 7

Prepare innovative working model on SDG goal 6 & 7
Prepare PPT on the project explaining theory, methodology and its inference.

Reference Video
https://youtu.be/dHqfSdCeNRE?si=NEIH19zp8tjq-8WY

SUBJECT: MATHEMATICS

Model & Roller chart on Success stories and case studies highlighting collaborations between governments, businesses, and civil society organizations to achieve the SDGs.(SDG goal 17)

SUBJECT: COMPUTER SCIENCE

Open Day Project

Mobile Application Development on SDG -2

PERIODIC TEST SYLLABUS

SUBJECT: ENGLISH

Period Test syllabus:

Reading

- Comprehension/Note Making

Grammar

- Tenses

Writing Skills

- Classified Advertisements

Literature

- Portrait of a Lady
- A Photograph
- The Summer of the Beautiful White Horse

SUBJECT: PHYSICS

Period Test syllabus:

Ch-1: Units and measurements
Ch-2: Motion in straight line
Ch-3: Motion in plane

SUBJECT: CHEMISTRY

Periodic Test syllabus

Ch-1 Some basic concepts of chemistry
Ch-2 Structure of atom

SUBJECT: BIOLOGY

Syllabus for Periodic test I

Ch. 1 The Living World
Ch. 2 Biological Classification
Ch. 3 Plant Kingdom

SUBJECT: MATHEMATICS

Syllabus for Periodic test I

1. Sets
2. Relations & Functions
3. Trigonometric Functions

SUBJECT: COMPUTER SCIENCE

Syllabus for Periodic test I

Ch-1 Computer System

Ch-2 Number System & Encoding Scheme

Ch-3 Boolean Logic

Ch-4 Introduction to Problem Solving

SUBJECT: PHYSICAL EDUCATION

Syllabus for Periodic test I

Chapter 1- changing trends and career in Physical Education

Chapter 2- Olympism

SUBJECT: PAINTING

Periodic Test I Syllabus

Chapter 1-Introduction to Art
Chapter 2- Pre Historic Rock Painting
Chapter 3- Art of Indus Valley

SUBJECT: PSCYCOLOGY

Periodic Test syllabus
Ch-1 (what is psychology)
Ch-2(Methods of Enquiry in psychology)

विषय –हिंदी

आवधिक परीक्षा का पाठ्यक्रम-नामक का दरोगा ,कबीरदास,मीराबाई
अभिव्यक्ति और माध्यम ,डायरी लेखन , अपठित गद्यांश