

**JB Academy, Faizabad**  
**Holiday Homework, Class IX**

**ENGLISH**

1. You are Sonal /Sumit of Vidyant Public School, Lucknow. You have seen an advertisement in the 'The Times of India' related to new batches of Astronomy Club initiated by National Science Centre ,Lucknow starting from the coming fortnight. You wish to join the club. Write a letter to the Director, enquiring about the venue, duration, fee-structure, activities, transportation etc. Invent other necessary details.
2. Prepare two incidents from the chapters of the novel THREE MEN IN A BOAT (12-19), for FA4 Activity.
3. Complete questions of 'The Bishop's Candlesticks' and 'The Song of The Rain'

**HISTORY**

1. Prepare for Monday test. Chapter for test- Democratic rights
2. Come prepared with doubts for remedial session.

**GEOGRAPHY & ECONOMICS**

1. Visit the ration shop in your locality, and get the following details:
  - A. When does the ration shop open?
  - B. What are the items sold at the ration shop?
  - C. Compare the price of rice and sugar from the ration shop with the price at other grocery shop.
  - D. Find out:
    - I. Do you have a ration card?
    - II. What has your family recently bought with this card from the ration shop?
    - III. Are there any problems that they face?
    - IV. Why are ration shops necessary?
2. Find some trees in your neighborhood having medicinal values, write there names and medicinal use.
3. Find five occupations getting raw materials from forest and wild life.

**PHYSICS:**

1. Write units and dimensions for the following:
  - a) Speed b) acceleration c) retardation d) gravitational constant e) gravitational force
2. Write difference b/w:
  - i) Gravitational constant and gravity
  - ii) Speed and velocity
  - iii) Distance and displacement
  - iv) Acceleration and retardation
  - v) Mass and weight
3. Two stones are thrown vertically upward simultaneously with their initial velocities  $u_1$  and  $u_2$  respectively. Prove that the heights reached by them would be in the ratio of  $u_1^2:u_2^2$ .
4. If the moon attracts the earth, why does the earth not move towards the moon?
5. A man travels a distance of 1.5m towards east, then 2.0m towards south and finally 4.5m towards east.
  - (i) What is the total distance travelled?
  - (ii) What is his resultant displacement?

6. What can you say about the motion of a body whose distance-time graph is a straight line parallel to time axis?

7. Draw a D-T graph:

T(s)	0	2	4	6	8	10	12
D(m)	0	1	4	9	16	25	36

Find motion of the body.

8. Derive position-velocity relation graphically.

9. A car is travelling at 20m/s along a road .A child runs out into the road 50m ahead and the car driver steps on the brake pedal. What must the car's deceleration be if the car is to stop just before it reaches the child?

10. (i) How much would a 70kg man weigh on the moon? What would be his mass on the earth and on the moon?

(ii) Derive relation/n between g and G by writing proper statements.

### CHEMISTRY

1. Ravi prepared a solution of sodium chloride by mixing 5.85 gram of salt in 1 litre of Water. Find-

a.Molar mass of sodium chloride.

b.No. of Moles of sodium chloride dissolved

c.Conc.of the sodium chloride solution.

2. Calculate the no. of atoms and molecules in 124 gram of Phosphorus.

3. Calculate the no.of molecules of SO<sub>2</sub>present in 44 gram of it.

4. Calculate the molar mass of the following and identify the polyatomic ions present in each.

MgSO<sub>4</sub>, Na<sub>2</sub>CO<sub>3</sub>

5. If 1 mole of oxygen atom weighs 16 gram, find the mass of one atom of oxygen.

6. Write the molecular formula of all the compounds that can be formed by the combination of following ions- Cu<sup>2+</sup>, Na<sup>+</sup>, Fe<sup>3+</sup>, Cl<sup>-</sup>, SO<sub>4</sub><sup>2-</sup>, PO<sub>4</sub><sup>3-</sup>

7. Calculate the mass of 0.5 moles of nitrogen gas and0.2 moles of chlorine gas.:

### BIOLOGY

1. Solve questions of Biology from any two sample papers and also attach the sample papers in your Biology copies.

2. Make a table to show classification in kingdom Animalia and Plantae separately in your Biology copy.

### ICT

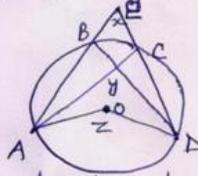
Create a project in HTML with at least 10 web pages and submit the project file for evaluation.

### Hindi

1. व्याकरण पुस्तक से अभ्यास प्रश्न-पत्र संख्या 1-5 हल करें (पृष्ठ संख्या : 114-116)|

# Maths

Q1. In the figure 'O' is the centre of circle, Prove that  $\angle x + \angle y = \angle z$

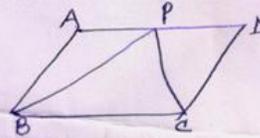


Q2. Construct an angle of  $60^\circ$  and bisect it with the help of ruler and compass.

Q3. Draw a line segment of length 8 cm and divide it into four equal parts with the help of ruler and compass.

Q4. Prove that the median of a triangle divides the triangle into two parts in equal area.

Q5. ABCD is a ||gm and BPC is a triangle. If the area of ||gm ABCD is  $26 \text{ cm}^2$ , Find the area of  $\triangle BPC$ .



Q6. Factorise -

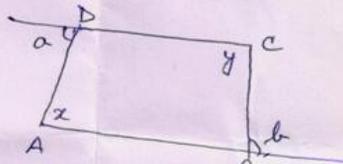
(a)  $(a+7)(a-10) + 16$

(b)  $7x^2 + 2\sqrt{14}x + 2$

(c)  $21x^2 - 2x + \frac{1}{21}$

(d)  $(x^2 - 4x)(x^2 - 4x - 1) - 20$

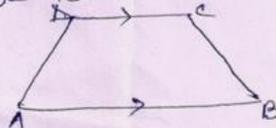
Q7. ABCD is a quadrilateral prove that  $\angle x + \angle y = \angle a + \angle b$



Q8. Construct a  $\triangle ABC$  whose perimeter is 12 cm and base angles are  $60^\circ$  and  $50^\circ$ .

Q9. The base of a right triangle is 8 cm and hypotenuse is 10 cm. Find its area.

Q10. Find the area of the field. If  $AB \parallel DC$ , and  $AB = 25 \text{ cm}$ ,  $CD = 10 \text{ cm}$ ,  $AD = 14 \text{ cm}$ ,  $BC = 13 \text{ cm}$ .



Prepare chapter Areas of Parallelogram and Geometrical Constructions for Monday test.