

**GURUKUL INTERNATIONAL SCHOOL, Haldwani**  
**HOME WORK FOR WINTER BREAK (2023-24)**

**Class- IX**

**ENGLISH –**

- 1 Write catchy articles in 100- 120 words on any two of the following topics.
  - a) Stress management during preparation of exams
  - b) Skill based education
  - c) The deteriorating values in teens
- 2 Write interesting stories in 200 words each on any two of the following themes.
  - a) comedy                      b) tragedy                      c) courage and heroism                      d) good vs evil
- 3 Write 5 slogans on: Cleanliness Drive.
- 4 Design and make one greeting card for the following occasions.
  - birthday of your friend
  - birthday of your teacher
  - best wishes to your sister for her exams
  - invitation card for your birthday partyAnd write at least four line message for each.
- 5 Make a video clipping of advertisement on any product.

**MATHEMATICS –**

- 1 The sides of a triangular plot are in the ratio of 6 : 7 : 8 and its perimeter is 420 m. Find its area.
- 2 If the non-parallel sides of a trapezium are equal, prove that it is cyclic.
- 3 In a hot water heating system, there is a cylindrical pipe of length 28 m and diameter 5 cm. Find the total radiating surface in the system
- 4 In a parallelogram ABCD find the measure of all the angles if one its angles is  $15^\circ$  less than twice the smallest angle.
- 5 The diameter of a road roller, 120 cm long is 84 cm. If it takes 500 complete revolutions to level a playground, find the cost of levelling it at Rs. 2 per square metre.
- 6 The exterior angles obtained on producing the base of a triangle both ways are  $100^\circ$  and  $120^\circ$ . Find all the angles.
- 7 If two intersecting chords of a circle make equal angles with the diameter passing through their point of intersection, prove that the chords are equal.
- 8 Solve :  $x + y = 18$ ;  $y + z = 12$ ;  $z + x = 16$
- 9 If  $x = \sqrt{3} - \sqrt{2} / \sqrt{3} + \sqrt{2}$  and  $y = \sqrt{3} + \sqrt{2} / \sqrt{3} - \sqrt{2}$ , then find the value of  $x^2 + y^2 + xy$ .
- 10 Make a file of basic concepts and important points of chapters lines and angles , triangle, circle , quadrilateral and surface area and volume.

**SCIENCE–**

- 1 The atomic number of lithium is 3. Its mass number is 7.
  - a) How many protons and neutrons are present in a lithium atom?
  - b) Draw the Diagram of a lithium atom.
- 2 What is gold foil experiment ? Name the scientist who performed this experiment. Write the conclusions and shortcoming of Rutherford's Model of atom.
- 3 If the Organisation of a cell is destroyed due to some physical or chemical influence, what will happen?
- 4 What would happen if Poultry birds are larger in size and have no summer adaptation capacity? In order to get small- sized poultry birds having summer adaptability, what method shall be Employed?
- 5 What is law of conservation of energy ? Derive an expression to prove the law when a stone is dropped from some height ?
- 6 Why is it advised to tie any luggage kept on the roof of a bus with a rope?

**SOCIAL SCIENCE–**

- 1 Prepare a 3D model of India showing various land forms and physical features of India.
- 2 Define the terms
  - a) Blandongdiensten system                      b) Reserved Forest                      c) Booth Capturing

- 3 On a map of India mark population density of all the states and highlight the states having highest and lowest density of population.
- 4 On a chart show the Distribution of population in India.
- 5 Make a Interdisciplinary project on Types of vegetation - Tropical Evergreen Forest , Deciduous Forest , Thorns Forest and Shrubs , Mountain Forest , Mangrove forest .

#### **HINDI –**

- 1 'साक्षरता अभियान' पर A4 सीट में एक पोस्टर बनाइए
- 2 त्योहारों का हमारे जीवन में महत्व व उनके संदेश पर बातचीत करते हुए दादा जी और पोते के संवाद को लगभग 100 शब्दों में लिखिए
- 3 छात्रावास में रह रहे छोटे भाई के द्वारा की गई मोबाइल फोन की मांग पर अभी इसका उपयोग न करने की सलाह देते हुए एक पत्र लिखिए
- 4 “करत करत अभ्यास के जड़मति होत सुजान,” लोकोक्ति का अर्थ स्पष्ट करते हुए छोटे भाई को पत्र द्वारा अभ्यास का महत्व बताइए

#### **COMPUTER –**

- 1 What is the default name of the worksheet ? How can it be renamed ?
- 2 Cell A1 contains the number 10 and B1 contains 5 .What will be the contents of cell C1 , if the formula =A1+B1 \*2^3 is entered in cell C1 ?
- 3 Cell D5 contains the formula =\$B\$5 + C5 and this formula is copied to cell E5, what will be the formula in cell E5?
- 4 Give the syntax and example of any three mathematical functions in a spreadsheet.
- 5 How do we perform Relative and Mixed referencing in Open office calc?
- 6 What are the main characteristics of presentation tool in an open office?