HOLIDAYS' HOME WORK

CLASS X

SUBJECT - ENGLISH

General Instructions:

- English Holidays' Homework is mainly research and project based.
- All the work is to be done on A-4 size designer sheets and to be arranged in a folder which should be superscribed with your name, class and subject.
- Evaluation will be done and the scored marks will be a part of the Internal Assessment of Half Yearly Examination.

1. **Speaking & Listening Skills Enhancement (for ASL) - 5 Marks**

   a) Speak an extempore on the following topics, record your voice and send the recordings as an attachment mentioning your name & class as file name to the email ID - holiday.homework.2022.english@gmail.com.
   The topics are -
   Digital India, Gender Discrimination, Rash Driving, Life in a Big City, Advantages of Vegetarianism, Drug Addiction among Teenagers, Natural Disasters, Education for Girls, Haste Makes Waste and Mobiles : A Boon or A Bane

   b) Practice the listening exercises by playing audios & answering the following questions. (Available on Net)

   c) After the vacation you will be assessed for the same and a 'Listening Skills Test' will be taken and marks will be awarded.

2. **Project Work - 10 Marks**

   Make a project on the poem - 'Dust of Snow' by Robert Frost.

   Instructions -

   - On the right side mention a stanza of the poem and its interpretation and on the left side paste or draw & colour the picture describing that stanza
   - Write even the theme of the poem.
     (Surf net for ideas.)

3. **Research Work - 5 Marks**

   Research about the renowned poet - Robert Frost.

   a) Write a brief description about the poet's life

   b) Make a list of the poems written by him.

SUBJECT – SOCIAL SCIENCE

GENERAL INSTRUCTIONS:

- Written work is to be done in class work note book.
- Map work is to be done in map file only.
- Project report must be hand written by the students themselves
- Evaluation will be done and marks will be a part of Internal Assessment in Half Yearly Examination.

1. Reading and Writing: 5 Marks

Read the following chapters and write down important terms (10 from each)

Civics: Chapter 2(Federalism) **Economics** : Chapter 2 (Sectors of Indian Economy)

Geography: Chapter 4 (Agriculture) **History** : Chapter 1 (The Rise of Nationalism in Europe)

2. Revision Work: 5 Marks

Revise the following chapters, frame 30 MCQs and write down (10 each)

Geography: Chapter 1 (Resources and Development) **Economics** Chapter 1(Development)

Civics: Chapter 1 (Power Sharing)

3 Map Work: 5 Marks

Prepare a map file with a self-designed cover page. Paste maps in it (India Political-10 , India Physical-10 World Political-5 and World Physical -5) and fill in the following:

a) Area of Major Soils: Black Soil ,Alluvial Soil , Arid Soil , Red & Yellow Soil and Montain soil(ch1 Geo)

b) Wild life Sanctuaries: Sariska, Idukki, Chandra Prabha, Mahananda , Tadoba , Chandaka (ch 2 Geo)

c) National Parks: Dachigram, Ranthambore, Corbett,Manas, Kaziranga, Sunderbans, Norkrek (Ch2 Geo)

d) River Projects and Dams: Salal, Tungbhadra, Rana Pratap Sagar Hirakund ,Tehri,Bhakra , Sardar Sarovar,Nagarjun Sagar Dam (ch3 Geo)

4 Project Work : 5 Marks

Select any one Topic of the following : i) Social Evils ii) Consumer Awareness iii) Sustainable Development.(To be done in a Project File with a well decorated cover page.)

SUBJECT – PHYSICS

1. Design an experiment to find the speed of your favorite object? Make a data Table between distance and time. Use the gradient of distance – time graph to findthe correlation between distance and time. Also hence comment on its speed at 5 different intervals of time.

2. (a) Make a 7 Layer Density tower using your favorite Liquids/solids. Share your experience using photographs.
   (b) How do you think the density of liquids will change if you increase their concentration? Form a hypothesis and design an experiment to investigate the research question.

3. Explore more about pendulums using one of the below given topics:
   a) Seconds Pendulum
   b) Pendulum Examples
   c) Free Body Diagrams of a simple pendulum
   d) Pendulum Dowsing
   e) Galileo pendulum
   f) Ballistic Pendulum
   g) First Pendulum Clock
   h) Pendulum swings
   i) Swinging pendulum Balls
   j) Quartz Pendulum wall clock

4. Choose a topic from the below given to demonstrate an application of pressure. Explain your findings on a Chart with pictures/diagrams.
   a) Soccer Ball Air Pressure
   b) Hot air Balloons
   c) Hydraulic Machines
   d) Role of pressure in spinning Ball
   e) Pressure Law of Gases
   f) Atmospheric pressure in straw water
   g) Atmospheric Pressure on earth and its applications
   h) Role of pressure in working of a hand pump
   i) Atmospheric pressure with Elevation

Academic homework

1. Name the type of mirror used in the following situations.
(a) Headlights of a car.
(b) Side/rear-view mirror of a vehicle.
(c) Solar furnace.
Support your answer with reason.

2. One-half of a convex lens is covered with a black paper. Will this lens produce a complete image of the object ? Verify your answer experimentally. Explain your observations.

3. An object 5cm in length is held 25cm away from a converging lens of focal length 10 cm. Draw a ray diagram and find the position, size and the nature of the image formed

4. A pencil when dipped in water in a glass tumbler appears to be bent at the interface of air and water. Will the pencil appears to be bent to the same extent, if instead of water we use liquids like, kerosene or turpentine. Support your answer with reason.

5. The image of a candle flame formed by a lens is obtained on a screen placed on the other side of the lens. If the image is three times the size of the flame and the distance between lens and image is 80 cm, at what distance should the candle be placed from the lens? What is the nature of the image at a distance of 80 cm and the lens?

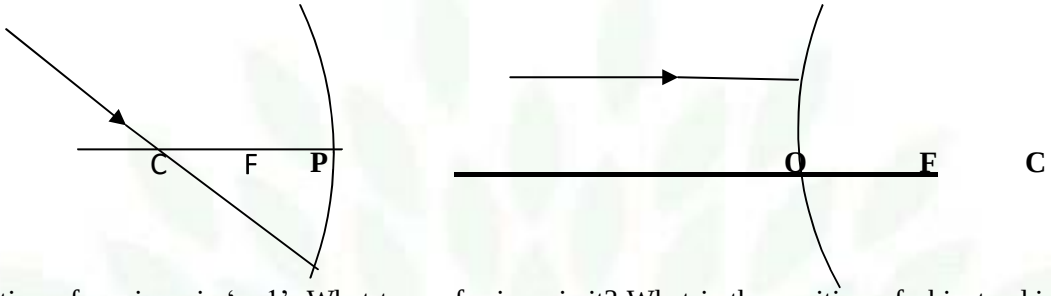
6. (a) It is desired to obtain an erect image of an object, using a concave mirror of focal length 20 cm.
(i) What should be the range of distance of the object from the mirror?
(ii) Will the image be bigger or smaller than the object?
(iii) Draw a ray diagram to show the image formation in this case.
(b) One half a convex lens of focal length 20 cm is covered with a black paper.
(i)Will the lens produce a complete image of the object?
(ii)Show the formation of image of an object placed at 2F1 of such covered lens with the help of a ray diagram.
(iii)How will the intensity of the image formed by half-covered lens compare with non-covered lens?

7. For which position of the object does a convex lens form a virtual and erect image? Explain with the help of a ray diagram.

EXTRA QUESTIONS

1. What is light? What is its nature?
2. What is the speed of light in vacuum?
3. What is a mirror?
4. What is the focal length of a plane mirror?
5. Differentiate between real and virtual image.
6. What type of image is formed on a cinema screen?
7. A concave mirror is a part of sphere of radius 40 cm. What is the focal length of the mirror?
8. Radius of curvature of a mirror is 20 cm. What type of mirror is it?
9. Magnification of a mirror is +2/3. What type of mirror is it?

10. Complete the following diagrams:-



11. Magnification of a mirror is '—1'. What type of mirror is it? What is the position of objectand image? Give the nature of image.
12. Name the type of mirror used:-
    (i) as a reflector in search light (iii) by the dentist
    (ii) as side view mirror in vehicles. (iv) as a shaving mirror
13. Wherever you may stand in front of mirror, your image is always erect & same sized, whattype of mirror is it?
14. (a) A ray of light strikes the mirror at an angle of 20^0. What is the angle of reflection?
    (b) Give the angle of incidence and reflection for normal incidence.
15. A candle is kept in front of plane mirror at distance of 15 cm. What is distance betweencandle & its image?
16. Radius of curvature of a mirror is +24cm. Name the kind of mirror and give thecharacteristics of the image formed by it.
17. Define refraction.
18. State the laws of refraction.
19. How does the lateral displacement depend upon:- (a) Thickness of the glass slab. (b) Angleof incidence
20. What is the lateral displacement when a ray of light falls normally on a glass slab?
21. Refractive index of water with respect to air is 1.33, what is refractive index of air withrespect to water?
22. Under what condition, the angle of refraction will be equal to the angle of incidence?
23. Refractive index of glass is 1.65, what is the speed of light in glass?
24. If refractive indices of alcohol & water are 1.36 and 1.33 respectively, which of the two isoptically denser?
25. A 1cm high object is placed at a distance of 2F from a convex lens, what is the height of theimage formed?
26. Focal length of a lens is 25 cm. What is its power?
27. Where should an object be placed for using a convex lens as magnifying glass?
28. Power of a lens is 0.4 D. what is its focal length?
29. Why does a stick, partly immersed in water, appear to be bent? Explain with a diagram.
30. A small electric lamp is placed at the focus of a convex lens. What is the nature of the beamof light produced by the lens?
31. Light travels from rarer medium 1 to denser medium 2. Angle of incidence & refraction are45^0 & 30^0 resp.
    (i) Calculate the refractive index of second medium with respect to the first.
    (ii) Calculate the refractive index of the first medium with respect to the second.
32. Find the position, nature and size of the image of an object 3 cm high placed at a distance of9 cm from a concave mirror of focal length 18 cm.
    (v = 18 cm, h = 6 cm)

33. An object 4 cm high is placed 40 cm in from of a concave mirror of focal length 20 cm. findthe distance from the mirror, at which a screen be placed to obtain a sharp image.
(v= - 40cm)
34. A convex lens has focal length of 30 cm. at what distance should object be placed from the lens so that it forms an image at 60 cm on other side of the lens? Find the magnification produced by the lens. (v=- 60cm, m = -1)
35. An arrow 2.5cm high is placed at a distance of 25 cm from a diverging mirror of focal length 20 cm. find the nature, position and size of the image formed
(11.1, 1.11cm).
36. The image formed by a convex mirror of focal length 30 cm is a quarter of the object, what isthe distance of object from the mirror?
(-90 cm)
37. An erect image 3 times the size of the object is obtained with a concave mirror of radius of curvature 36 cm. calculate the position of the object.
(-12cm)
38. A concave lens has focal length of 15 cm. at what distance should an object be placed fromthe lens so that if forms an image at 10 cm from the lens? Find the magnification of the lens.
(-30cm, 1/3)
39. A 2 cm tall object is placed perpendicular to the principal axis of a convex lens of focal length 10 cm. the distance of the object from the lens is 15 cm. find the nature, position and size of the image. (30cm, -4cm)
40. The image obtained with a convex lens is erect and its length is 4 times the length of the object. If the focal length of the lens is 20 cm, calculate the object and image distance.
(-15 cm, - 60cm)
41. A concave lens of focal length 25 cm and a convex lens of focal length 20 cm are placed in contact with each other. What is the power of this combination? What is the focal length of the combination?(1D, 1m)
42. Find the focal length and nature of lens which should be placed in contact with a lens of focallength 10 cm so that the power of the combination becomes 5 dioptre.
(-20cm, concave)

SUBJECT- CHEMISTRY

GENERAL INSTRUCTIONS:-

- Holiday homework will be evaluated properly and it will comprise a fixed share in internal assessment of half yearly examination.
- Assignment and revision work has to be completed in chemistry notebook only.
- Holiday homework will be judged on the following parameters:-
  a) Level of research
  b) Presentation
  c) Tidiness

1. PROJECT WORK:- (10 MARKS)

To make homemade pH paper using red cabbage as discussed in the class and test whether following materials are acidic, basic or neutral :Lemon juice ,vinegar ,carbonated water, distilled water ,toothpaste, milk of magnesia, bleach. Write this activity in chemistry notebook along with observation table. Make a video while making pH paper and conducting tests of the given materials and submit when asked.

2. REVISION WORK:-(3 MARKS)

Revise CH-1 CHEMICAL REACTIONS AND EQUATIONS, complete in text questions and back exercise questions in your notebook.

3. RESEARCH WORK:-

Make at least **25 chemical formulae** in chemistry notebook using different cation and anion combinations from NCERT BOOK OF CLASS IX**.** (2 MARKS)

4. Research about few chemicals that you use daily at your home:(TO BE DONE ON A4 SIZE SHEETS) (5 MARKS)
   - Washing powder
   - Baking powder
   - Baking soda
   - Vinegar
   - Plaster of Paris

Report their chemical formula, formation, chemical name and uses.

(HINT: You can take help from CH-2 ACIDS, BASES AND SALTS)

SUBJECT- BIOLOGY

General instructions:

- Solve question :1 in your Biology notebooks.
- Prepare a powerpoint presentation and save it in pendrive.
- Evaluation will be part of your Internal Assessment in Half-Yearly Examination.

WRITTEN WORK: 5 MARKS

1. Write the following questions in your Biology notebooks :
   a) Why do herbivores have longer, small intestine than carnivores?
   b) Write the balanced chemical equation for the process of photosynthesis. How photosynthesis occurs in desert plants?
   c) In single celled organisms diffusion is sufficient to meet all their requirements of food, exchange of gases or removal of wastes but it is not in case of multicellular organisms. Explain the reason for this difference.
   d) Draw a neat labeled diagram of human alimentary canal.
   e) Explain the process of nutrition in Amoeba.
   f) How do guard cells regulate the opening and closing of the stomata?
   g) Explain exchange of gases in humans.
   h) State the role of the following in human digestive system:
   i) Digestive enzymes
   j) Hydrochloric acid (Hcl)

2. Draw a diagram of human respiratory system and label the following:
   a) Part where air is filtered by fine hairs and mucus
   b) Part which terminates in balloon like structures
   c) Part which separates chest cavity from abdominal cavity
   d) Part where exchange of gases takes place.
   e) Draw a neat labeled diagram of opened and closed stomata.

PROJECT WORK :5 +5 MARKS

1.Preapre a powerpoint presentation on any one of the following topics (minimum slides : 10)

- Human digestive system
- Human respiratory system
- Circulatory system
- Nervous system
- Excreatory system

(Note : prepare for presentation of your selected topic along with ppt. saved in pendrive.)

2. Prepare a detailed project report / assignment on Human Resopiratory Disorders

(minimum 5 disorders) on A4 size sheets. At last of the report mention bibliography/refrences used.

SUBJECT- MATHEMATICS

General Instructions:

- Mathematics Holidays' Homework is basically research and Project based.
- Three chapters are given to revise thoroughly for Viva.
- All the work is to be done on A-4 size sheets and to be arranged in a folder with your name, class and subject.
- Evaluation will be done and marks will be a part of Internal Assessment in Half yearly Examination**.**

1. **REVISION WORK-5 MARKS**

   Revise Ch-1- Real Numbers, Ch-2- Polynomials & Ch-3- pair of linear equations in two variables.

2. **WRITTEN WORK-** Solve Last 5 years CBSE question paper related to given chapters.

3. **PROJECT WORK (Portfolio) -10 MARKS**

   a) Select Topic of your PROJECT.

   b) Collect the information related to your Topic (text, pictures, tables, Graphs, Data etc.) and submit in a Folder.

4. **Practical work -5 MARKS**

   Topic 1- To verify the conditions for consistency of a system of linear equations in two variables by graphical representation.

   Topic 2- Write history of two Indian mathematician in following topics.

   a) Date of birth
   b) Birth place
   c) Count
   d) About family
   e) About education.
   f) Achievement
   g) Famous for
   h) Remarks

SUBJECT – SOCIAL SCIENCE

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- **Map work is to be done in map file only.**
- **Project report must be hand written by the students themselves**
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1. Reading and Writing: 5 Marks

Read the following chapters and write down important terms (10 from each)

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2. Revision Work : 5 Marks

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Civics: Chapter 1 (Power Sharing)

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d)River Projects and Dams: Salal, Tungbhadra, Rana Pratap Sagar Hirakund ,Tehri,Bhakra , Sardar Sarovar,Nagarjun Sagar Dam (ch3 Geo)

4 Project Work : 5 Marks

Select any one Topic of the following : i) Social Evils ii) Consumer Awareness iii) Sustainable Development.(To be done in a Project File with a well decorated cover page.)

विषय – हिन्दी ,कक्षा – 10

(ग्रीष्मकालीन अवकाश गृहकार्य के लेखन कार्य के लिए एक अलग कॉपी निर्मित करें अथवा ए-4 आकार के पृष्ठों पर करें।) **भारांक**:20

1.**गोपियों की जगह आप होते तो अपना तर्क किस प्रकार देते ?** 2 अंक

2.**किसी एक स्वतंत्रता सेनानी का सचित्र वर्णन कीजिए |** 2 अंक

3. गोस्वामी तुलसीदास का साहित्यिक **जीवन** परिचय **लिखिए |** 3 अंक

4.**सूरदास** जी की प्रमुख रचनाओं के बारे में **संक्षेप में** लिखिए | 3 अंक

5.वर्तमान समय में कोरोना की भयावह स्थिति पर एक अनुच्छेद लिखें | 3 अंक

6.**राम और लक्ष्मण की तीन –तीन विशेषताएं लिखिए |** 2 अंक

7.**आप से किसी महापुरुष की मूर्ति लगाने के लिए कहा जाए तो आप किसकी मूर्ति लगाएंगे, और क्यों ?** 2 अंक

8. **हिंदी समाचारपत्रों में से प्रतिदिन 5 नए समाचार लिखिए।।** 3 अंक