BUXI JAGABANDHU ENGLISH MEDIUM SCHOOL, BHUBANESWAR

HOLIDAY HOMEWORK

CLASS- X

ENGLISH LANGUAGE & LITERATURE

1. A comparative study on Robert Frost's life and his works.
   Details - A4 size paper, hand-written, paste pictures & make it presentable.
2. Write 3 formal letter on Current Issues.
   (a) 1 letter to the editor
   (b) 2 letters to the Authority
   Use A4 size paper.

ODIA

୧. ରଚନା - ଅରଣ୍ୟ ସମ୍ପଦର ସୁରକ୍ଷା

୨. ପତ୍ରଲିଖନ- ତୁମ ଅଞ୍ଚଳର ଅସୁବିଧା ସମ୍ପର୍କରେ ଏକ ବିବରଣୀ ଲେଖି ସମ୍ବାଦପତ୍ର ସମ୍ପାଦକଙ୍କୁ ପତ୍ର ଲେଖ ।

୩. 'ଜନ୍ମଭୂମି ପ୍ରତି ତୁମର କର୍ତ୍ତବ୍ୟ ' ଶୀର୍ଷକ ଏକ ସ୍ୱରଚିତ ଲେଖା ପ୍ରକାଶ ନିମନ୍ତେ ସମ୍ବାଦପତ୍ରର ସମ୍ପାଦକଙ୍କୁ ପତ୍ର ଲେଖ ।

HINDI- B

Write in CBSE exercise copy (New copy)

अनुच्छेद-(Given in pdfformat)

मुहावरे- (Given in pdf format)

लघुकथा- (Given in pdf format)

विज्ञापन –(Given in pdf format)

सूचना – (Given in pdf format)

COMMUNICATIVE SANSKRIT

1. Chapter - 1
2. Sandhi
3. Avaya
4. Prakriti-Prataya

MATHEMATICS

1. Explain why 3**X** 5 x 7**X** **1**1+11 is a composite number ?
2. Show that 18^n can not end with the digit 0 for any natural number?
3. Two numbers are in the ratio 15:11.If their HCF is 13 and LCM is 2145, then find the numbers.
4. Write whether $\frac{2\sqrt{45}+3\sqrt{20}}{2\sqrt{5}}$ on simplification gives a rational or an irrational number.
5. The LCM of two numbers is 14times their HCF. The sum of LCM and HCF is 600. If one number is 280, then find the other number.
6. Find the greatest number of five digits exactly divisible by 18,24 and 36.
7. Three bells toll at intervals of 12minutes, 15minutes and 18 minutes respectively. If they start tolling together, after what time will they next toll together?
8. Find the smallest number which leaves remainders 8 and 12 when divided by 28 and 32 respectively.
9. Find the smallest number which when increased by 17 is exactly divisible by both 520and 468.
10. A mason has to fit a bathroom with square marble tiles of the largest possible size. The size of the bathroom is 10ft. by 8ft. What would be the size in inches of the tile required that has to be cut and how many such tiles are required?
11. Prove that √5 is an irrational number .
12. Prove that 2-3√5 is an irrational number .
13. Prove that √5+√3 is an irrational number .
14. If one zero of polynomial $(a^2+9)x^2+13x+6a$ is reciprocal of the other , find the value of 'a' .
15. If α and β are zeros of $p(x)=x^2+x-1$, then find $\alpha^2\beta+\alpha\beta^2$.
16. If α and β are the zeros of the polynomial x^2+x-6 , find the value of $\frac{1}{\alpha^2}+\frac{1}{\beta^2}$.
17. If one zero of the quadratic polynomial $p(x)=x^2+4kx-25$ is negative of the other, find the value of k.
18. Find the zeros of the polynomial $x^2+\frac{1}{6}x-2$, and verify the relation between the coefficients and zeros of the polynomial.
19. If α and β are the zeros of the quadratic polynomial $f(x)=kx^2+4x+4$ such that $\alpha^2+\beta^2=24$, find the values of *k* .
20. If α and β are the zeros of the quadratic polynomial $f(x)=2x^2-5x+7$, find a polynomial whose zeros are 2α+3β and 3α+2β .
21. If α and β are the zeros of the quadratic polynomial $f(x)=x^2-px+q$, prove that $\frac{\alpha^2}{\beta^2}+\frac{\beta^2}{\alpha^2}=\frac{p^4}{q^2}-\frac{4p^2}{q}+2$.
22. If α and β are the zeros of the quadratic polynomial $f(x)=x^2-p(x+1)-c$, show that $(\alpha+1)(\beta+1)=1-c$.
23. Find the value of a if 3α+2β =20, If α and β are the zeros of the quadratic polynomial x^2-6x+a.
24. If α and β are the zeros of the quadratic polynomial $3x^2+6x+2$, then form quadratic polynomial whose zeroes are $\frac{\alpha^2}{\beta}$ and $\frac{\beta^2}{\alpha}$.
25. If α and β are the zeros of the quadratic polynomial $3x^2-5x-2$,then find the value of $(\frac{\alpha^2}{\beta}+\frac{\beta^2}{\alpha})$ +6 (α+1) (β+1).

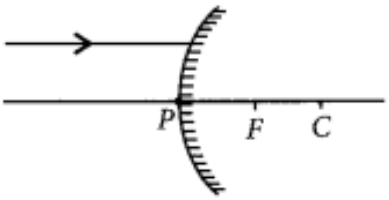
SCIENCE

INSTRUCTIONS :

All answers to be written in your respective copies.

PHYSICS

1. Explain why a ray of light passing through the centre of curvature of a concave mirror, gets reflected along the same path.
2. What is the nature of the image formed by a concave mirror if the magnification produced by the mirror is +3?
3. Between which two points of a concave mirror should an object be placed to obtain a magnification of -3?
4. The outer surface of a hollow sphere of aluminium of radius 50 cm is to be used as a mirror. What will be the focal length of this mirror? Which type of spherical mirror will it provide?
5. State the two laws of reflection of light.
6. If the image formed by a spherical mirror for all positions of the object placed in front of it is always erect and diminished, what type of mirror is it?
   Draw a labelled ray diagram to support your answer.
7. A ray of light is incident on a convex mirror as shown. Redraw the diagram and complete the path of this ray after reflection from the mirror. Mark angle of incidence and angle of reflection on it.



8. "The magnification produced by a spherical mirror is -3". List four informations you obtain from this statement about the mirror/ image.
9. Why are convex mirrors preferred in vehicles?
10. A student projected a candle flame image on a screen which is 48 cm in front of the mirror, by placing the flame 12 cm from its pole.
    Suggest the type of mirror which should be used.
    Find the linear magnification of the image produced.
    How far is the image from the object?
11. Why is a concave mirror used as a shaving mirror?
12. Draw a labeled ray diagram to show the path of the reflected ray corresponding to an incident ray of light parallel to the principal axis of a convex mirror. Mark the angle of incidence and angle of reflection on it.
13. A concave mirror produces three times magnified image on a screen. If the object is placed 20 cm in front of the mirror, how far is the screen from the object?
14. A 5 cm tall object is placed at a distance of 30 cm from a convex mirror of focal length 15 cm. Find the position, size and nature of the image formed.
15. Radius of curvature of a concave mirror is 25 cm. What is its focal length?

A concave mirror produces 10 cm long image of an object of height 2 cm. What is the magnification produced?

16. An erect image three times the size of the object is obtained with a concave mirror of radius of curvature 36 cm. What is the position of the object?
17. An object is placed 15 cm from a convex mirror of radius of curvature 90 cm. Calculate the position of the image and its magnification.
18. Define the following terms of a spherical mirror
    a) Pole b) Aperature
    c) Focus d) Centre of curvature

CHEMISTRY

1. Write twenty chemical word equations along with their balanced chemical equations.
2. a) Write the activity 1.7 of your text book (To study the process of electrolytic decomposition, i.e. electrolysis of water)
   b) Why is the amount of gas collected in one of the test tubes double of the amount collected in the other? Name the gas.
3. Define reactivity series.
   a) Name three metals in which single displacement reaction is possible and write the chemical equation of it.
   b) Name three metals in which single displacement reaction is not possible with the salt solution .

BIOLOGY

1. Draw a neat labeled diagram of the following:-
   i) Cross-section of leaf
   ii) Open and closed stomatal pore
   iii) Nutrition in Amoeba
   iv) Human alimentary canal
   v) Break-down of glucose by various pathways
   vi) Human respiratory system
   vii) Schematic sectional view of the human heart
   viii) Schematic representation of transport and exchange of oxygen and carbon dioxide
   ix) Excretory system in human beings
   x) Structure of a nephron.
2. i) Write an activity to show the following) Chlorophyll is essential for photosynthesis.
   ii) Carbon dioxide is essential for photosynthesis.
   iii) The action of saliva on food.
   While writing an activity, write aim of the activity, materials required, procedure, observation and conclusion.
3. Read the chapter -5: Life Processes and learn whatever taught in the class.
   Also read chapter -13: Our Environment.

SOCIAL SCIENCE

HISTORY AND POLITICAL SCIENCE

1. Write Terminologies and its meaning from the

   Chapter-1-Power Sharing (Political Science)

2. Chapter-1-The making of nationalism in Europe (History)

   (10 terms from each chapter)

3. Interdisciplinary project with Chapter-3 of History-The making of a global world (sub-topics 2 to 4.4) .

   Chapter-4 of Economics- globalisation and the Indian economy and

   Chapter-7 of Geography-Lifeline of National economy (one project)

   : Introduction to the Interdisciplinary Project

   : The Great Depression:

   : India and the Great Depression:

   : Rebuilding the World Economy and Interlinking Production across countries

   : The Early Post-War Years: The role of roadways, railways, waterways and airways in building the national economy

   : Post war settlement and Bretton Woods institutions

   : Decolonization and Independence - The Role of World Trade Organization:

   : End of Bretton Woods and the Beginning of Globalization*:*

   : Impact of Globalization in India and role of waterways and airways

1. Every student undertake one project on Consumer Rights Or Social Issues Or Sustainable Development
2. Choose any one topic
3. Use A4 size paper
   I) Name of the Topic, Name of the student, Roll No, class/section , school Name and Guide Teachers' name
   II) Acknowledgement
   III) Content
   IV) Introduction
   V) Subject
   VI) Conclusion
   VII) Remarks
4. Maximum 15 pages
5. The Project Report can be handwritten or digital.
6. Do not use stick files
7. Use appropriate extraordinary photos

The distribution of marks over different rubrics relating to Project work is as follows:

SL. No	Aspects	Marks
A	Content Accuracy, Originality and Collaborative skills	2
B	Competencies exhibited and Presentation	2
C	Viva	1

INFORMATION TECHNOLOGY

Chapter 1 : introduction to Styles

1. What do you understand by style in Libre Office Writer Document ?
2. Write advantages of using style over manual formatting , for designing a document.
3. What do you understand by custom styles in libreoffice writer?
4. What is fill format mode?
5. Give one situation , in which you will prefer to use feel format for styling your document.
6. Write any two ways to create a custom style.
7. Discuss different categories of styles in detail.

Chapter 2 : working with images

1. State the difference between resizing of image and cropping of India
2. What are the benefits and drawbacks of grouping drawing objects ?
3. Write the factors that controls the positioning of an image in a document.
4. What is digital image ? How can you create one?
5. Write the advantages of inserting an image by Linking
6. Write the steps to use drawing objects in a document.
7. Write the steps to group drawing objects.
8. Write the effect of following image filters on the image
   a. Aging
   b. Solarisation
   c. Posterise
   d. Charcoal sketch
   e. Relief
   f. Sharpen
   G. Smooth
   h. Invert
9. Define the following with respect to positioning an image
   A. Arrangement
   B. Anchoring
   C. Alignment
   D. Text wrapping
10. Discuss different ways to insert an image in a Libre Office Document Writer.