

# DAV Public School Moonidih Project, Dhanbad Jharkhand

## Summer Vacation Homework

### Class VIII

#### English

Exercise of the chapter The Fun They Had

Make A Chart of All Tenses

Write a notice for collecting funds for the

Children who have become orphans due to Covid.

#### Sub-Maths

H.A - Do 10 questions each from the ch1-(square and square roots) and ch2-(cube and cube roots).The questions should be long type.

P.W- write about the life history of any one Indian Mathematician and his contribution in the field of mathematics in a stick file ( paste or draw picture of that mathematician also)

#### Sub : Science

1.Draw or paste concept map of Force and Pressure .

2.write the Methods of increasing Friction and paste the picture related to it.

3.Draw or paste the four different types of coal (pg no-112) and also write the percentage of carbon and one use of each.

4.Make a project on methods of Food Preservation.(Any five method)and also paste the picture related to it.

5.Learn ch-2(Microbiology)

#### Sub : S.St

#### CLASS VIII. SUBJECT:- SOCIAL SCIENCE

1) In your Home - work copy make a list of available public facilities such as water, road, electricity, hospitals, school, public transport, street lights, public parks etc in your locality.

2) In your home work copy prepare and design the Preamble of Indian Constitution.

3) Learn all the notes and exercise question/ answer of chapter1, 8 and 16.

## Sub : Hindi

ग्रीष्मावकाश गृहकार्य

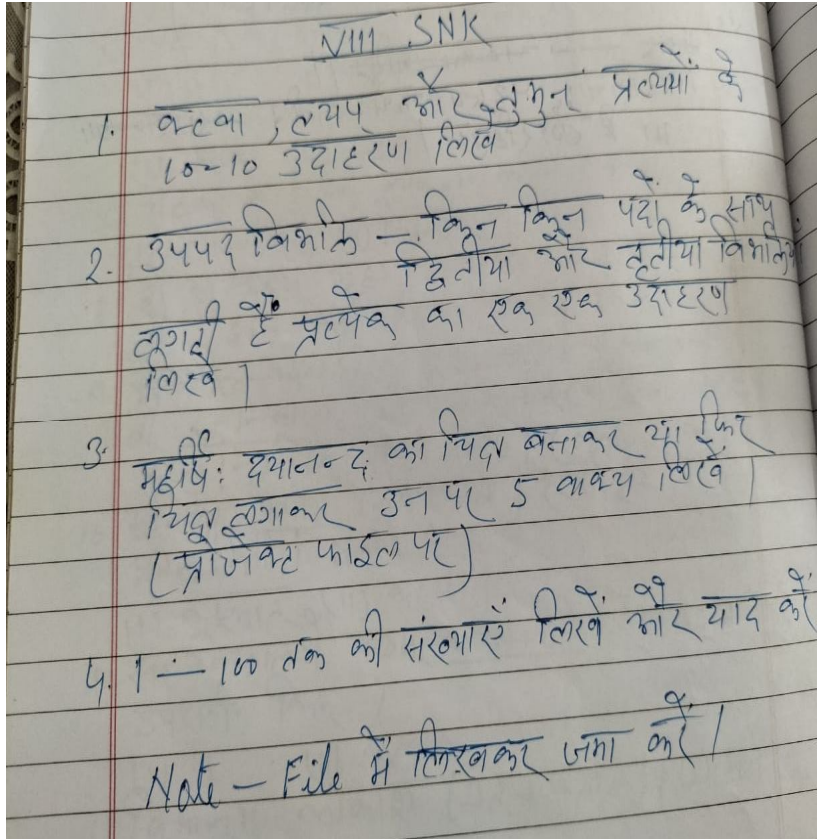
कक्षा - अष्टम

ज्ञान-सागर -पाठ-३ प्रश्न संख्या -५, भाषा की बात-१,२। पाठ-४ प्रश्न संख्या-६ भाषा की बात-१,२ बनाना है।

अनुप्रास, उपमा, रूपक, मानवीकरण अंलकार लिखकर याद करना है।

अभ्यास-सागर-पाठ-३ प्रश्न संख्या-३,५,७,१३,१४,१५ पाठ-४ प्रश्न संख्या-११,१२,१३,१४,१६,१७,१८ बनाना है।

## Sub : Sanskrit



## Computer

1. Do hands on activity given in page no 36, 41, 43 and 46.
2. Draw the following.
  - a) Coaxial cable
  - b) Fibre Optic cable
3. Write short notes on Wi-Fi , WiMAX and satellite communication.

# Class IX

## Sub : English

- 1.Exercise of the chap The Little Girl
2. Rain on the Roof
3. Write a letter to the Editor of a national daily about on line exam

## SUB- Maths

- Ch-1 :- Do 10 questions.(Number system)  
Ch-2 :- Do 15 questions.(Polynomials)  
Ch-3 :- Do 05 questions (Coordinate Geometry)  
Activity work: To construct square root spiral.  
Write about rational numbers and irrational numbers(on stick file paper)

## Sub : S.St

CLASS :- IX      SUBJECT :- SOCIAL SCIENCE

- 1) In your home- work copy do this home-work.  
Is France affected by the outbreak of COVID 19 ?  
Read some news items to find out the measures taken by France to combat the pandemic.
- 2) Learn all the notes and exercise question / answer taught in the online classes.

## Sub : Physics

Q1. Define the following:-

- a.) rest and motion
- b.) distance and displacement
- c.) speed and velocity

Q2. What do you mean by uniform and non-uniform motion?

Q3. Define acceleration and write its S.I. unit.

Q4. Convert in km/h

- a.) 200m/s
- b.) 4cm/s
- c.) 2cm/s
- d.) 150m/s
- e.) 100m/s

Q5. Convert in m/s

- a.) 18km/h
- b.) 45km/h
- c.) 72km/h
- d.) 90km/h
- e.) 108km/h

Q6. A car moves 90km/h.After 30 minutes its velocity becomes 180km/h. Find its acceleration.

Q7. Show graphically

a.)  $v=u+at$

b.)  $s=ut+(1/2)at^2$

Do Holiday homework in a seperate shortlength copy

### Sub : Chemistry

To collect five solid, five liquid and five gase in small bottles and paste it on the decorated thermocol.

### Sub : Biology

Record observations/characteristic features and draw their labelled diagrams.

- Parenchyma, collenchyma and sclerenchyma tissues in plants and
- Striated, smooth, cardiac muscles and nerve cells in animals from prepared slides.

Note:- I. Complete the work in a thin HW copy/32 page.  
II. Use colours for figures

### Sub : Hindi

ग्रीष्मावकाश गृहकार्य

कक्षा - नवम्

पद्य - वाख का प्रश्नोत्तर लिखना है।

गद्य - ल्हासा की ओर पाठ का प्रश्नोत्तर लिखना है।

व्याकरण - उपसर्ग एवं प्रत्यय के दस-दस एवं समास के भेद के छह-छह उदाहरण लिखना है।

प्रोजेक्ट कार्य- वृक्षहमारे मित्र एवं मोबाइल फोन का बढ़ता उपयोग पर सुंदर चित्र सहित लिखना है।

### Sub : Sanskrit

SVHW 2021-22 SUB-SANSKRIT  
Std-IX ① उपपद विभक्ति द्वितीया तृतीया  
विभक्ति के 15-15 उदाहरण लिखें।  
② शकडरूपों का 15 उदाहरण बनायें।  
③ धातुरूपों का तथा लिङ्गा 2 वियों  
का 10-10 (प्रत्येक का) बनायें।  
Project File में लिखकर जमा  
करना है।

**Sub : IT-402**

1. Collect the pictures of any 3
  - a) input devices
  - b) Output devices
  - c) Storage devicesand also write three lines for each device with two advantages of each devices.
2. Write about three web browsers and draw the icon of each web browser.
3. Write about social networking websites(3 lines) for each facebook, whatsapp, and twitter and also draw the icons for these sites.
4. Learn chapter 1,2,3 for class test in the opening week.

# Class X

## Sub : English

Subject: English Language & Literature

1. Prepare a short Biography of Nelson Mandela focusing on his struggle or a long walk to freedom. Use his image.
2. Prepare character-sketches of Lencho, Mrs. Pumphrey, Anil and Hari Singh.
3. Prepare an article on the topic 'Computers: 'A Boon or A Bane' in about 120-150 words.

OR

Afforestation : Need of the Hour

Note: Do it in your Homework copies.

## Sub : Hindi

ग्रीष्मावकाश गृहकार्य

कक्षा- दशम

गद्य- बालगोबिन भगत पाठ का प्रश्नोत्तर लिखना है।

व्याकरण - वाक्य परिवर्तन एवं वाच्य परिवर्तन के पच्चीस-पच्चीस उदाहरण लिखना है।

प्रोजेक्ट कार्य- पर्यावरण का महत्त्व, व्यायाम और जीवन एवं विज्ञापन की दुनिया पर सुंदर चित्र सहित लिखना है।

## Sub : Maths

**Do only long answer type questions.**

Ch-1 :- Do 10 questions.(Real Numbers)

Ch-2 :- Do 10 questions.(Polynomials)

Ch-3 :- Do 10 questions (Linear Equation in two variables )

Activity work: Prepare a project work on Real Numbers in stick file paper.

## Sub : Physics

Q1. Define the following:-

- a.) potential difference
- b.) resistance

c.) resistivity

d.) electric power

e.) B.O.T. unit of electric energy

f.) Ammeter and voltmeter

Q2. State Ohm's law. Give its limitation. Draw a circuit diagram to verify ohm's law.

Q3. Define series combination of resistance. Show that equivalent resistance in series combination is  $R_{eq} = R_1 + R_2 + R_3 + \dots$

Q4. What is parallel combination of resistance. Show that equivalent resistance in parallel combination of resistance is  $1/R_{eq} = 1/R_1 + 1/R_2 + \dots$

Q5. What are advantages of parallel grouping over series grouping? Which combination is used in household circuit?

Q6. Which alloy is used in heating element? Give reasons.

Q7. You have two electric lamps rated 40W, 220V and 60W, 220V. Which of them has higher resistance?

Q8. The length of a wire is doubled by stretching. How times its resistance increases?

Q9. Find the current and potential difference across each resistor (Refer to figure 1)

Q10. Find the current and potential difference across each resistor (Refer to figure 2)

### **Sub : Sanskrit**

सभी समासों का नाम लिखकर 10 -10 उदाहरण प्रोजेक्ट फाइल में बनाएं।

### **Sub : Chemistry**

To make a project on rusting with drawings and creativity and also observe the whole process in the home and write the observations in the file paper.

### **Sub : Biology**

Comments on the following experiments/activities

a. A temporary mount of leaf peel to show stomata.

b. CO<sub>2</sub> is given out during respiration

**Note:- I. Complete the work in a thin HW copy/32 page.**

**II. Use colours for figures**

**Sub : S.St**

**CLASS X      SUBJECT:- SOCIAL SCIENCE**

1) In your Home - work copy do this home work.

PROJECT- Socio -Economic impact of the pandemic COVID 19.

Develop project on the socio- economic issues that can arise due to the pandemic COVID 19 locally and globally.

2) Learn all the notes and exercise question/ answer taught in the online classes.

**Sub : IT - 402**

1. Write one line each about 7 C's of communication.
2. Draw icons for 4 different types of operating systems and write 4 features of each.
3. Draw the desktop with all its contents of windows( 1 line each).
4. Learn Chapter – 3 for class test on the week the school reopens.



## Class XI(Science)

### Sub : English

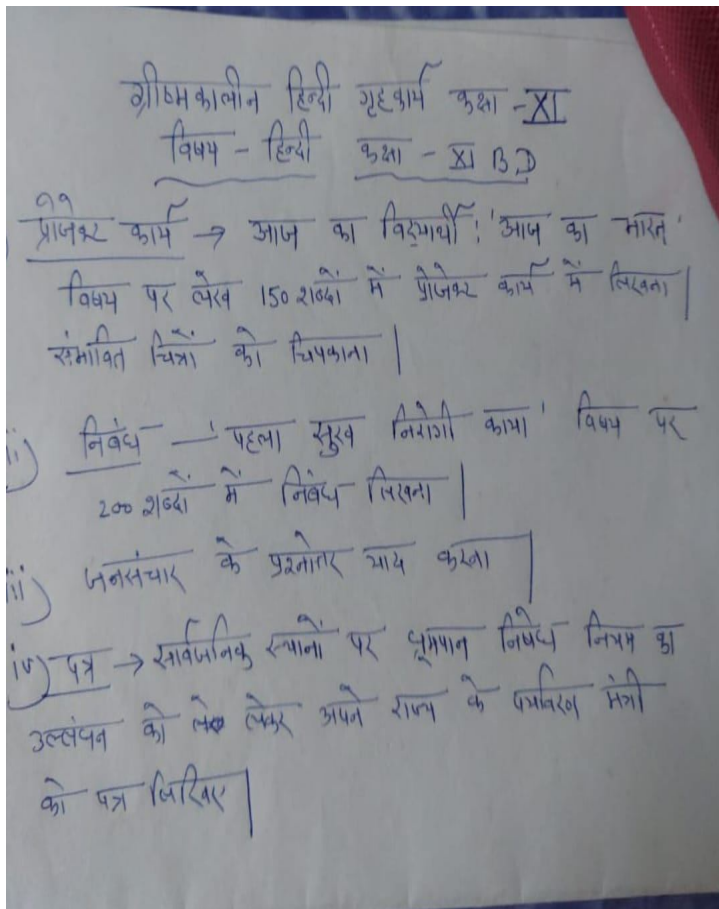
1. Prepare a short Biography of Khushwant Singh focusing on his literary achievements with some related images.
2. Prepare character sketches of the Grandmother in 'The Portrait of a Lady', Aram and Mourad in 'The Summer of the Beautiful White Horse' and the Captain in 'We Aren't Afraid to Die If We Can all Be Together.'
3. Prepare a speech on the topic 'Where there is a will, there is a way' to be delivered during morning assembly in your school in about 150-200 words.

OR

Prepare an article on the topic 'Impact of Covid-19 on Indian and Global Economy' in about 150- 200 words.

Note: Do it in your Homework Copies. Use your own language to answer.

### Sub : Hindi



**CBSE Class 11 Mathematics**  
**Important Questions**  
**Chapter-5 Complex Numbers and Quadratic Equations**

**Very Short Answer Type Questions (1 Mark)**

1. Evaluate,  $\sqrt{-16} + 3\sqrt{-25} + \sqrt{-36} - \sqrt{-625}$   
 Ans. 0
2. Evaluate,  $i29 + \frac{1}{i28}$   
 Ans. 0
3. Find values of x and y if,  
 $(3x - 7) + 2iy = -5y + (5 + x)i$   
 Ans.  $x = -1, y = 2$
4. Express  $\frac{i}{1+i}$  in the form  $a + ib$   
 Ans.  $\frac{1}{2} + \frac{1}{2}i$
5. If  $z = \frac{i}{3+4i}$ , find the conjugate of z  
 Ans.  $\bar{z} = \frac{3}{25} + \frac{4i}{25}$
6. Find the modulus of  $z = 3 - 2i$   
 Ans.  $\sqrt{13}$
7. If z is a purely imaginary number and lies on the positive direction of y-axis then what is the argument of z?  
 Ans.  $\frac{\pi}{2}$
8. Find the multiplicative inverse of  $5 + 3i$   
 Ans.  $\frac{5}{34} - \frac{3i}{34}$
9. If  $|z| = 4$  and argument of  $z = \frac{5\pi}{6}$  then write z in the form  $x + iy$ ;  $x, y \in \mathbb{R}$

Ans.  $z = -2\sqrt{3} + 2i$

10. If  $z = 1 - i$ , find  $\text{Im}\left(\frac{1}{z\bar{z}}\right)$

Ans. 0

11. Simplify  $(-i)(3i)\left(\frac{-1i}{6}\right)^3$

Ans.  $\frac{i}{72}$

12. Find the solution of the equation  $x^2 + 5 = 0$  in complex numbers.

Ans.  $x = \pm i\sqrt{5}$

**Short Answer Type Questions (4 Marks)**

13. For Complex numbers  $z_1 = -1 + i, z_2 = 3 - 2i$  show that,  
 $\text{Im}(z_1 z_2) = \text{Re}(z_1) \text{Im}(z_2) + \text{Im}(z_1) \text{Re}(z_2)$
14. Convert the complex number  $-3\sqrt{2} + 3\sqrt{2}i$  in polar form  
 Ans.  $z = 6\left(\cos \frac{3\pi}{4} + i \sin \frac{3\pi}{4}\right)$
15. If  $x + iy = \sqrt{\frac{1+i}{1-i}}$ , prove that  $x^2 + y^2 = 1$
16. Find real value of  $\theta$  such that,  $\frac{1+i \cos \theta}{1-2i \cos \theta}$  is a real number

Ans.  $\theta = (2n+1)\frac{\pi}{2}, n \in \mathbb{Z}$

17. If  $\left| \frac{z-5i}{z+5i} \right| = 1$ , show that  $z$  is a real number.

Ans. Hint : use property  $\left| \frac{z_1}{z_2} \right| = \frac{|z_1|}{|z_2|}$

18. If  $(x+iy)^{\frac{1}{3}} = a+ib$ , prove that,  $\left( \frac{x}{a} + \frac{y}{b} \right) = 4(a^2 - b^2)$

19. For complex numbers  $z_1 = 6 + 3i$ ,  $z_2 = 3 - i$  find  $\frac{z_1}{z_2}$

Ans.  $\frac{z_1}{z_2} = \frac{3(1+i)}{2}$

20. If  $\left( \frac{2+2i}{2-2i} \right)^n = 1$ , find the least positive integral value of  $n$ .

Ans.  $n = 4$

21. Find the modulus and argument of  $z = 2 - 2i$

Ans. modulus  $= 2\sqrt{2}$ , argument  $= \frac{-\pi}{4}$

22. Solve the equation,  $\sqrt{3x^2} - \sqrt{2x} + 3\sqrt{3} = 0$

Ans.  $x = \frac{\sqrt{2} \pm i\sqrt{34}}{2\sqrt{3}}$

#### Long Answer Type Questions (6 Marks)

23. If  $z_1, z_2$  are complex numbers such that,  $\left| \frac{z_1 - 3z_2}{3 - z_1z_2} \right| = 1$  and  $|z_2| \neq 1$  then find  $|z_1|$

Ans. Hint:  $|z|^2 = z\bar{z}$ ,  $|z_1| = 3$

24. Find the square root of  $-3 + 4i$  and verify your answer.

Ans.  $\pm(1 + 2i)$

25. If  $x = -1 + i$  then find the value of  $x^4 + 4x^3 + 4x^2 + 2$

Ans. 6

Sub : Physics

NOTE-Do Holiday homework in a separate shortlength copy

Q1. Deduce the dimensional formulae for the following physical quantity:-

- a) gravitational constant
- b) Young's Modulus
- c.) Planck's Constant
- d) Surface tension

Q2. The time period of a tuning fork depends on the length  $l$  of its prong, density  $d$  and Young's modulus  $Y$  of its material. Deduce an expression for the time period of vibration on the basis of dimensions.

Q3. The resistance  $R = V/I$ , where  $V = 100 \pm 5$  V and  $I = 10 \pm 0.2$  A. Find the percentage error in  $R$ .

Q4. The velocity of a body which has fallen freely under gravity varies as  $(g^p)(h^q)$ , where  $g$  is the acceleration due to gravity at the place and  $h$  is the height through which the body has fallen. Determine the values of  $p$  and  $q$ .

Q5. If the errors involved in the measurements of a side and mass of a cube are 3% and 4% respectively, what is the maximum permissible error in the density of material?

Q6. State the number of significant figures in the following:-

- a) 2.000m
- b) 5100kg
- c) 0.050cm

Q7. The moon is observed from two diametrically opposite points A and B on the earth. The angle  $\theta$  subtended at the moon by the two directions of observation is  $1^\circ 54'$ . Given the diameter of the earth to be  $1.276 \times 10^7$  m, compute the distance of the moon from the earth.

Q8. Taking velocity, time and force as the fundamental quantities, find the dimension of mass.

Q9. Distinguish between the terms precision and accuracy of a measurement. Explain with the help of a suitable example.

Q10. The density of mercury is  $13.6 \text{ g/cm}^3$  in CGS system. Find its value in SI units

#### **Sub : Chemistry**

**Solve numericals on following topics of chapter BASIC**

**CONCEPT OF CHEMISTRY:-**

**1)mole concept**

**2) stoichiometric calculation i.e mass-mass relationship, mass-volume relationship, volume-volume relationship and limiting reagent.**

**3) Do at least total 50 questions from both the topics**

**4) Do home work in separate copy**

**Sub : Bio**

**Sub : Bio**

1. Write the cell theory ? who gave this and correct it.
2. Draw a labelled fig of Mitochondria & Plastid write their functions. Why they are called semiautonomous cell organells.

**Sub : Computer Science**

Revise the topics taught in the class

## **Class XI(Commerce)**

### **Sub : English**

1. Prepare a short Biography of Khushwant Singh focusing on his literary achievements with some related images.
2. Prepare character sketches of the Grandmother in 'The Portrait of a Lady', Aram and Mourad in 'The Summer of the Beautiful White Horse' and the Captain in 'We Aren't Afraid to Die If We Can all Be Together.'
3. Prepare a speech on the topic 'Where there is a will, there is a way' to be delivered during morning assembly in your school in about 150-200 words.

OR

Prepare an article on the topic 'Impact of Covid-19 on Indian and Global Economy' in about 150- 200 words.

Note: Do it in your Homework Copies. Use your own language to answer.

### **Sub : Accountancy**

Chapter 1. Meaning and objectives of Accounting: prepare notes on meaning of Accounting, its features, objectives, functions. Different book keeping and Accounting, type of Accounting, user's of Accounting information, advantages and limitations of Accounting, Qualitative features of Accounting information.

Chapter 2. Basic Accounting Terms- Prepare notes on Basic Accounting terms, events, Account, meaning of capital, drawing, liability, meaning of assets and its type, meaning of expenditure, expenses, income, profit, gain, loss, stock and types, inventory, goods, voucher, discount and its types. Write ten objective type questions, ten MCQ questions from this chapter.

Chapter 3. Accounting Principles- Prepare notes on meaning of Accounting principles, its features, need, kinds of Accounting principles a) Accounting concept b) Accounting conventions. Also write ten objective type questions and ten MCQ question from this chapter.

Chapter 4. Accounting equations- solve all additional questions in this chapter (from Q.No- 22 to 29).

### **Sub : Economics**

## Micro Economics

Q1. Complete notes of Chapter – 1, Introduction from the PDF.

Q2. Briefly explain the meaning of PPC and its features.

Q3. Explain shift and rotation of PPC.

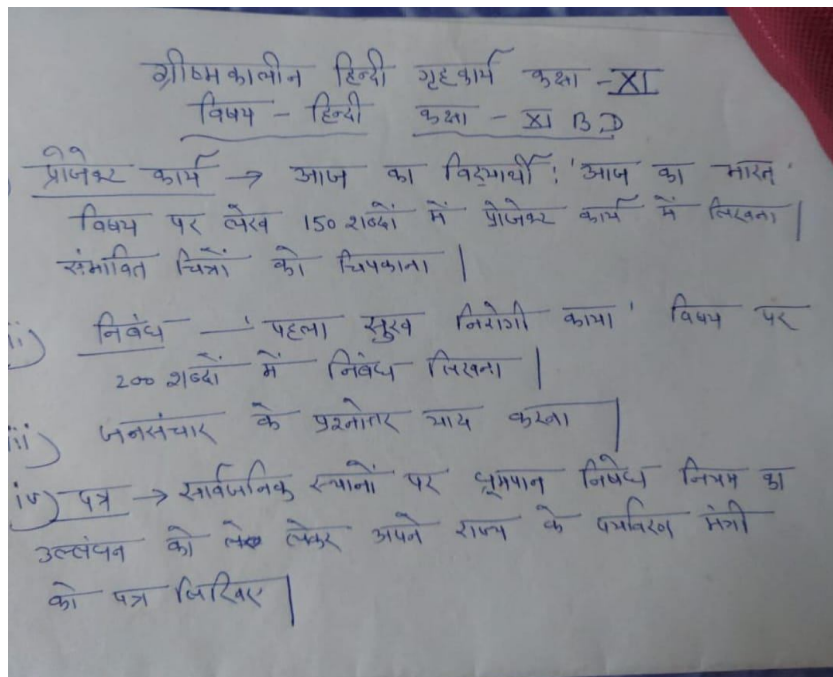
Q4. Solve two illustrations from each of the following:

- Bar diagram – Simple & Sub – Divided.
- Histogram – With & Without adjusted frequency.

### Sub : B.St

1. Evolution and Fundamentals of Business.- Prepare notes on indigenous banking system, Transport types, trading communities, economic and non - economic activities, meaning of business , it's features , concept of employment, profession, classification of industry , it's type . Meaning of commerce, it's role, branches of commerce, Aids to trade. different objectives of business, meaning of business risk and it's causes. Write any ten objective type questions, MCQ questions and ten case studies questions in your home work copy.

### Sub : Hindi



### Sub : Mathematics

CBSE Class 11 Mathematics  
Important Questions  
Chapter-5 Complex Numbers and Quadratic Equations

**Very Short Answer Type Questions (1 Mark)**

1. Evaluate,  $\sqrt{-16} + 3\sqrt{-25} + \sqrt{-36} - \sqrt{-625}$

Ans. 0

2. Evaluate,  $i29 + \frac{1}{i^{25}}$

Ans. 0

3. Find values of x and y if,  
 $(3x - 7) + 2iy = -5y + (5 + x)i$

Ans.  $x = -1, y = 2$

4. Express  $\frac{i}{1+i}$  in the form  $a + ib$

Ans.  $\frac{1}{2} + \frac{1}{2}i$

5. If  $z = \frac{i}{3+4i}$ , find the conjugate of z

Ans.  $\bar{z} = \frac{3}{25} + \frac{4i}{25}$

6. Find the modulus of  $z = 3 - 2i$

Ans.  $\sqrt{13}$

7. If z is a purely imaginary number and lies on the positive direction of y-axis then what is the argument of z?

Ans.  $\frac{\pi}{2}$

8. Find the multiplicative inverse of  $5 + 3i$

Ans.  $\frac{5}{34} - \frac{3i}{34}$

9. If  $|z| = 4$  and argument of  $z = \frac{5\pi}{6}$  then write z in the form  $x + iy$ ;  $x, y \in \mathbb{R}$

Ans.  $z = -2\sqrt{3} + 2i$

10. If  $z = 1 - i$ , find  $\text{Im} \left( \frac{1}{z \bar{z}} \right)$

Ans. 0

11. Simplify  $(-i)(3i) \left( \frac{-1i}{6} \right)^3$

Ans.  $\frac{i}{72}$

12. Find the solution of the equation  $x^2 + 5 = 0$  in complex numbers.

Ans.  $x = \pm i\sqrt{5}$

**Short Answer Type Questions (4 Marks)**

13. For Complex numbers  $z_1 = -1 + i, z_2 = 3 - 2i$  show that,

$\text{Im}(z_1 z_2) = \text{Re}(z_1) \text{Im}(z_2) + \text{Im}(z_1) \text{Re}(z_2)$

14. Convert the complex number  $-3\sqrt{2} + 3\sqrt{2}i$  in polar form

Ans.  $z = 6 \left( \cos \frac{3\pi}{4} + i \sin \frac{3\pi}{4} \right)$

15. If  $x + iy = \sqrt{\frac{1+i}{1-i}}$ , prove that  $x^2 + y^2 = 1$

16. Find real value of q such that,  $\frac{1+i \cos \theta}{1-2i \cos \theta}$  is a real number

Ans.  $\theta = (2n+1)\frac{\pi}{2}, n \in \mathbb{Z}$



17. If  $\left| \frac{z-5i}{z+5i} \right| = 1$ , show that  $z$  is a real number.

Ans. Hint : use property  $\left| \frac{z_1}{z_2} \right| = \frac{|z_1|}{|z_2|}$

18. If  $(x+iy)^{\frac{1}{3}} = a+ib$ , prove that,  $\left( \frac{x}{a} + \frac{y}{b} \right) = 4(a^2 - b^2)$

19. For complex numbers  $z_1 = 6 + 3i$ ,  $z_2 = 3 - i$  find  $\frac{z_1}{z_2}$

Ans.  $\frac{z_1}{z_2} = \frac{3(1+i)}{2}$

20. If  $\left( \frac{2+2i}{2-2i} \right)^n = 1$ , find the least positive integral value of  $n$ .

Ans.  $n = 4$

21. Find the modulus and argument of  $z = 2 - 2i$

Ans. modulus  $= 2\sqrt{2}$ , argument  $= \frac{-\pi}{4}$

22. Solve the equation,  $\sqrt{3x^2} - \sqrt{2x} + 3\sqrt{3} = 0$

Ans.  $x = \frac{\sqrt{2} \pm i\sqrt{34}}{2\sqrt{3}}$

#### Long Answer Type Questions (6 Marks)

23. If  $z_1, z_2$  are complex numbers such that,  $\left| \frac{z_1 - 3z_2}{3 - z_1z_2} \right| = 1$  and  $|z_2| \neq 1$  then find  $|z_1|$

Ans. Hint:  $|z|^2 = z\bar{z}$ ,  $|z_1| = 3$

24. Find the square root of  $-3 + 4i$  and verify your answer.

Ans.  $\pm(1 + 2i)$

25. If  $x = -1 + i$  then find the value of  $x^4 + 4x^3 + 4x^2 + 2$

Ans. 6

**Sub : Computer Science**

Revise the topics taught in the class

## Class XII(Science)

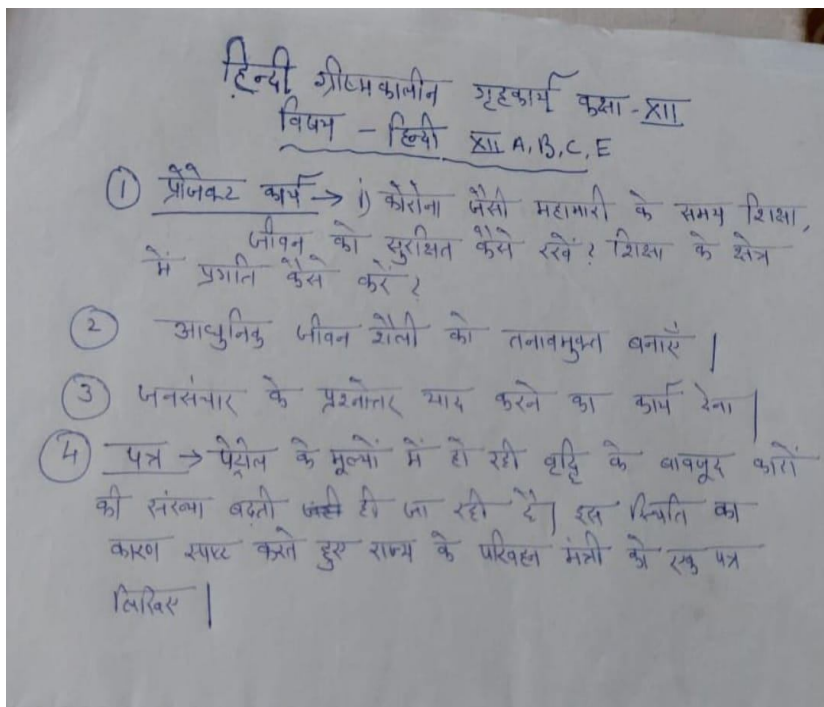
### Sub : English

Subject: English Core

1. Prepare character-sketches of the following-  
M. Hamel , Charley , William Douglas , Mukesh , Dr. Sadao and Franz.
2. Prepare a speech on the topic ' Where there is a will, there is a way' for morning assembly in about 150-200 words.
3. Prepare an article on the topic ' Computers : A Boon or A Bane' in about 150-200 words.

Note- Do it in your Homework Copies.

### Sub : Hindi



### Sub : Mathematics

#### NCERT TEXT BOOK :-

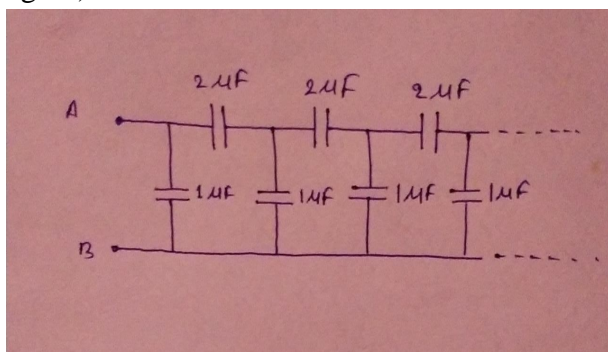
1. Relation and Function -- Solve Qno. 5 ,8 ,9 , 10 and 14 of Ex -1.1 and Qno. 2,3 ,9 and 10 of Ex -1.2.

2. Determinant--Solve Qno. 11, 13 and 14 of Ex-4.2 ; Qno. 15 and 16 of Ex-4.6 and Qno. 12, 14 ,15 and 16 of Miscellaneous exercise.

3. Continuity and Differentiability-  
Solve all the questions of  
Miscellaneous exercise on chapter 5 .

### Sub : Physics

- Q1. What is charge. Write five properties of charge.
- Q2. State Coulombs Law and its limitations.
- Q3. A positive point charge  $2q$  and a positive point charge  $q$  are kept  $L$  distance apart. Where should a third positive charge  $Q$  be kept on the line joining them for the system to be in equilibrium?
- Q4. A charge is distributed uniformly over a ring of radius ' $r$ '. Obtain an expression for the electric field intensity  $E$  at a point on the axis of the ring.
- Q5. What is an electric dipole? Define electric dipole moment and give its SI unit.
- Q6. Define electric lines of force. Give its important properties.
- Q7. a) Define electric flux. Give its SI unit  
b) State Gauss's law
- Q8. Define electric potential. Derive an expression for the electric potential at a distance  $r$  from a point charge  $q$ .
- Q9. Derive an expression for the electric potential at a point along the axial line of dipole.
- Q10. What is an equipotential surface? Give some important properties of the equipotential surfaces.
- Q11. Sketch equipotential surfaces for  
a) a positive point charge  
b) a uniform electric field
- Q12. What is electrostatic shielding? Mention its few applications.
- Q13.(a) Derive an expression for the capacitance of a parallel plate capacitor.  
b.) What are the factors on which the capacitance of a parallel plate capacitor depends?
- Q14. (a) A  $900\text{ pF}$  capacitor is charged by a  $100\text{V}$  battery. How much electrostatic energy is stored by the capacitor?  
b) The capacitor is disconnected from the battery and connected to another  $900\text{pF}$  capacitor. What is the electrostatic energy stored by the system?  
c) Where has the remainder of the energy gone?
- Q15. Find the equivalent capacitance of the ladder between points A and B.(refer to figure)



### Sub : Chemistry

Do all NCERT exercise and in text questions of the following chapters in separate copy:-

1) solid states

2) solutions

### Sub : Biology

1. Classify genetic disorders with example ? How haemophilia and colourblindness inherited.
2. What is multiple allelism. Give example.
3. Prepare a chart to show how blood group inherited in the children.

**Sub : Computer Science**

1. Write a function Fact() to calculate the factorial of a number given by the user.
2. Write a function Fibn() to print the Fibonacci series of n-terms.
3. Write a function Palin() to check whether a given string is Palindrome.
4. Write a recursive function FactRec() to print the factorial of a number.
5. Write a recursive function FibRec() to compute the nth Fibonacci number.

Note : Do all these homework in Computer practical copy

## **Class XII(Commerce)**

### **Sub : English**

Subject: English Core

1. Prepare character-sketches of the following-  
M. Hamel , Charley , William Douglas , Mukesh , Dr. Sadao and Franz.
2. Prepare a speech on the topic ' Where there is a will, there is a way' for morning assembly in about 150-200 words.
3. Prepare an article on the topic ' Computers : A Boon or A Bane' in about 150-200 words.

Note- Do it in your Homework Copies.

### **Sub : Accountancy**

- Chapter 1. Financial statement of Not -for-Profit organisations;- Solve Q.no- 44 to 63 in your home work copy.
2. Accounting for Partnership Firms ( Fundamentals) - solve Q.no 77 to 100 in your home work copy.
  3. change in profit sharing ratio among Existing partners: - solve Q.no 47 to 67 in your text book.
  4. Admission of a partner - solve Q.no 102 to 117 in your home work copy.

### **Sub : Economics**

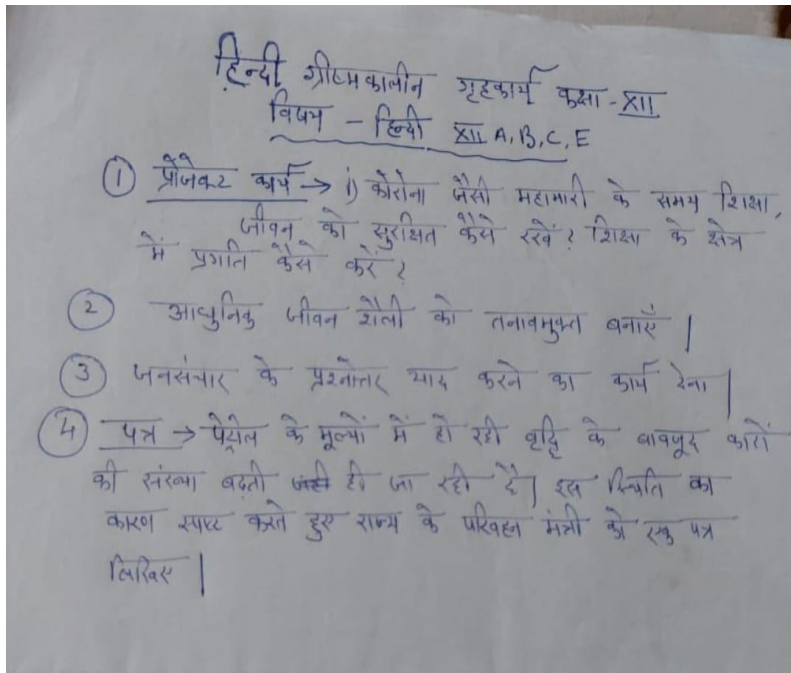
#### **Macro Economics**

- Q1. Complete notes from Chapter – National Income and related aggregate from the PDF.
- Q2. Solve example no. 20 to 42 from Chapter – Measurement of National Income.
- Q3. Go through One Word, MCQ and NCERT Questions given in the exercise of Chapter – National Income.
- Q4. Revise Income to be included in National Income and Not to be included in National Income from Page No. 4.17 – 4.27.

### **Sub : B.St**

1. Nature and significance of Management- Prepare notes on meaning of management, it's features, function of management, different levels of management, meaning of coordination, it's features and importance. Read and Write 20 MCQ question and case studies questions from your text book in your home work copy.
2. Principles of management and business environment- Project work ( any one topic).
3. Planning- Prepare notes on meaning of planning, it's features, importance, limitations. Different steps in planning process and types of plan in your home work copy. Write ten objective questions , ten MCQ question and case studies question from this chapter.

## Sub : Hindi



## Sub : Mathematics

### NCERT TEXT BOOK :-

1. Relation and Function -- Solve Qno.

5, 8, 9, 10 and 14 of Ex -1.1 and

Qno. 2, 3, 9 and 10 of Ex -1.2.

2. Determinant--Solve Qno. 11, 13 and

14 of Ex-4.2 ; Qno. 15 and 16 of Ex-4.6

and Qno. 12, 14, 15 and 16 of

Miscellaneous exercise.

3. Continuity and Differentiability-

Solve all the questions of

Miscellaneous exercise on chapter 5 .

## Sub : Computer Science

6. Write a function Fact() to calculate the factorial of a number given by the user.

7. Write a function Fibn() to print the Fibonacci series of n-terms.

8. Write a function Palin() to check whether a given string is Palindrome.

9. Write a recursive function FactRec() to print the factorial of a number.

10. Write a recursive function FibRec() to compute the nth Fibonacci number.

Note : 1. Do all these homework in computer practical copy.