

# Guru Amar Dass Public School, Goindwal Road, Kapurthala

Grade :X

Summer Holidays

Homework Session 2022-23



## Important Instructions

- Neatness and presentation are common parameters for most of the activities assigned. Please maintain the quality of work done.
- Holiday's homework will be assessed on certain parameters and marks/grade will be awarded accordingly.
- To score well in your upcoming exams strike a balance between your leisure time and studies.
- Marks of Holidays Homework will be added in your Mid-Term Examination.

## BE A WONDERFUL HUMAN BEING: KEEP IN MIND TO

- Do the homework independently, only ask for assistance from your parents or guardians
- Remember to have a wide mouth container filled with water outside your house for the birds to get respite from the scorching heat.
- Pray to almighty daily and thank for the blissful life that you enjoy.
- Be a helping hand to your parents and learn the skill of shared responsibility.
- Do the work by following the guidelines given with each work or activity
- Spend time with your parents and grandparents, their rich experience will help you overcome challenges with ease.

## HEALTHY LIFESTYLE BE YOUR PRIORITY

- Give prime importance to your health. Eat lots of fruits, do exercise and get into yoga
- Pledge for "Eat Right -Less Sugar, Less Oil and Less Salt"
- Wash hands frequently, especially before and after meal.
- Avoid sharing of towel, handkerchief, brush with others.
- Drink plenty of water.

## REQUEST TO PARENTS

- Summer vacation time is an opportunity to spend the quality time with your child and make him/her feel special of his unique identity.

### So just spare sometime and do the following:

- Talk about Omni presence of **God** and humility being developed with regular prayers and doing good deeds as to offer best prayer to the God. Take them some religious places.
- Let them feed the poor and share things with needy people with love, let them enjoy the **Art of Giving**.
- Talk about the importance of parents and elders.

# ENGLISH

## **(1) Read the following passage and answer the questions that follow:**

Alfred Hitchcock was a man with vivid imagination, strong creative skills and a passion for life. With his unique style and God-gifted wit he produced and directed some of the most thrilling films that had the audience almost swooning with fright and falling off their seats with laughter. Alfred Hitchcock was greatly influenced by American films and magazines. At the age of 20, he took up a job at the office of Paramount Studio, London. Using imagination, talent and dedication, he made each of his endeavours a success. He took great pleasure in working in the studio and often worked all seven days a week. He moved to the USA in 1939 and got his American citizenship in 1955. Here, he produced many more films and hosted a weekly television show. No matter from where his ideas came, whether a magazine article, a mystery novel or incident, his films had the typical “Hitchcock touch”-where the agony of suspense was relieved by interludes of laughter! Hitchcock was knighted in 1980.

**Write the option that you consider the most appropriate in your answer sheets.**

**Q1:** What qualities helped Hitchcock achieve success?

- (i) his imagination, creativity and passion for life
- (ii) his hard work, his imagination and his sense of humour
- (iii) his creativity, his passion for life and his sense of humour
- (iv) his imagination, his talent and his dedication

**Q2:** What is Alfred Hitchcock famous as?

- (i) writer (ii) film producer
- (ii) Television actor (iv) film actor

**Q3:** What did the typical Hitchcock-style of film-making include?

- (i) fear and passion (ii) fear and humour
- (iii) suspense and humour (iv) fear and suspense

**Q4:** What did Alfred Hitchcock do in United States?

- (i) He produced films and read magazines
- (ii) He produced films and television serials
- (iii) He read magazines and saw films
- (iv) He produced films and hosted a television show

**Q5** What does the word swooning mean?

- (i) fainting (ii) falling
- (iii) hiding (iv) becoming conscious

## **(2) Read the following passage and answer the questions that follow:**

A noble purpose gives meaning to one's own life and is of benefit to others. I realised this while researching on and writing about the life of Jamshedji Tata. What gave one man living in a colonised country the vision to advance it in the community of nations? He not only gave India the power to steel and hydroelectric energy, but also an institution of research.

He sent an educationist to Europe and the United States to report on what should be the best model for India. The John Hopkins University in Baltimore was recommended as the model. But Jamshedji Tata made it a point to see that his name was not associated with the university. After his death, his dream came true with the establishment of the Indian Institute of Science in Bengaluru. It was to be fountain head of science in the decades to come.

There are others too whose purpose in life has made a difference to society. Mother Teresa had a comfortable life at Loretto Convent, Kolkata. On a train journey to Darjeeling, she felt her 'calling' and wanted to give up her comfortable life in the convent and serve the poor and the needy.

After that, she took a three month nursing course and returned to Kolkata. She devoted her time to the sick and the homeless. Touched by her sacrifice, some of her students joined her and work began. Not everyone has such a strong calling. When I asked her how one could be sure of one's calling, she replied, “Deep down in our hearts we know exactly what our calling is, if we are sincere.” One's purpose is shaped over a period of time, but every noble purpose is based on a feeling for the suffering of others and our desire for alleviating that condition.

**Q. 1 On the basis of your reading of the above passage answer the questions that follow:**

1. Bring out the unique character traits of Jamshedji Tata?

2. Why did he send an educationist to Europe and the USA?
3. Mention two facts about Indian Institute of Science.
4. How did Mother Teresa start working for the poverty stricken people?
5. What was the first step Mother Teresa took?
6. How can we find our calling?
7. Is it possible to find one's calling within a short period? Why/Why not?
8. Find the word in Para 4 which means the same as 'lessening'.

**Q. 2 Answer the following questions:**

1. Who gave India the power of steel and hydroelectric energy
2. \_\_\_\_\_ had a comfortable life at Loretto convent, Kolkata.
3. Mother Teresa felt her 'calling' when she was travelling by train to \_\_\_\_\_ .
4. Where did Jamshedji send his educationist to report?
5. Indian Institute of Science does not bear the title of whom?
  1. Ambani
  2. Tata
  3. Birla
  4. Reliance
6. Who brought Green Revolution to India?
  1. Dr. B.R. Ambedkar
  2. Vinoba Bhave
  3. Dr. Radhakrishnan
  4. Dr. M.S. Swaminathan
7. Where is Indian Institute of Science situated?
  1. Hyderabad
  2. Pune
  3. Delhi
  4. Bengaluru
8. Name the Indian city where Mother Teresa settled and served the poor?
  1. Delhi
  2. Chennai
  3. Mumbai
  4. Kolkata

**Unseen Passage 3**

New Delhi: Atithi Devo Bhavah. To make visitors to the city feel welcome during the Commonwealth Games, India Tourism Development Corporation (ITDC) is set to train taxi and auto drivers, CISF personnel posted at monuments, dhaba owners, hotel staff etc. Participants will be taught English as well as courtesy and ways to communicate with tourists. At present, there is a shortage of trained guides in the city and with Commonwealth Games drawing close, the issue has to be addressed promptly.

With hundreds of historical sites to visit and each monument boasting its own unique history, foreign nationals are often left to fend for themselves and depend on tourist books and brochures for information. Language is another problem. Quite a contrast to facilities offered in tourist sites in western countries, where trained guides-proficient in several languages-are easily available to aid visitors apart from group-guided trips at regular intervals. Although the Archeological Survey of India (ASI) plans to introduce audio guide services in five languages at some world heritage sites our experts point that not a single monument or tourist place in the city has an interpretation centre where tourists can come and get all information pertaining to a particular site. ASI is also in the process of bringing out more brochures and guides for foreign visitors in the city. Experts say such facilities are crucial if the government wants to promote Delhi as a 'heritage city'. Various agencies like INTACH are also involved in the plans.

Under ITDC's plans, etiquette training for the Games will also be provided to residents who offer rooms to foreigners under Delhi government's bed and breakfast scheme. "House-owners will be given hospitality related training and a brief of Indian tourism scenario. Most visitors generally question their hosts on information about the city so they will be provided information on the golden triangle- Delhi, Agra and Jaipur as well as where tourists should go visiting in Delhi," said an official.

Read the questions given below and write the option you consider the most appropriate in your answer sheet.

**Q1: What are the initiatives to be taken up by the India Tourism Development Corporation to make the visitors feel welcome during the Commonwealth Games?**

- (i) training of drivers, CISF personals, dhaba owners and hotel staff.
- (ii) promoting the sale of tourist books and brochures.
- (iii) arranging audio cassettes and tapes on tourism.
- (iv) constructing more bed and breakfast homes.

**Q2: How have the western countries managed to offer aid and better facilities to their tourists?**

- (i) by providing good tourist books and brochures.
- (ii) by providing well-behaved and courteous guides.
- (iii) by training guides in several languages and group-guided trips at regular intervals.
- (iv) by allowing foreign nationals to fend for themselves.

**Q3: Apart from the guides and the guided tours, Archeological Survey of India has expressed the need for establishing \_\_\_\_\_ at historical sites to help tourists.**

- (i) interpretation centres. (ii) rehabilitation centres.
- (iii) cessation centres. (iv) training centres.

**Q4: What steps have been taken by ASI to promote Delhi as a heritage site?**

- (i) making brochures very informative and training the residents.
- (ii) bringing out more brochures and involving other agencies in planning and visitor management.
- (iii) offering tourists all sources of comfort for their stay and visits to historical sites.
- (iv) providing owners of bed and breakfast homes information about Delhi, Agra and Jaipur.

**Q5: \_\_\_\_\_ are to be provided to residents who offer rooms to foreigners under ITDC's plan.**

- (i) comfortable stay, friendly and hospitable treatment
- (ii) etiquette training, hospitality treatment
- (iii) better tourist guides and interpretation centres
- (iv) visits to the golden triangle cities.

#### **Unseen Passage 4**

Surgical Instruments Designed Due to Necessity

Necessity, they say, is the mother of invention. And Indian doctors have been quite creative when hamstrung by few or no tools to perform specific surgeries. They simply design it themselves at one-fourth the price they are sold abroad. In fact, some of their innovations are priced at as much as hundreds of dollars abroad.

Take 47-year-old Dr Burjor P Banaji, pioneer of Lasik surgery in India. He's invented over a dozen surgical instruments. When this senior eye surgeon at Max Eye Care started Lasik, there were few surgeons doing it worldwide and no specific instruments were available either. "As I want things super-perfect, I designed a whole slew of instruments that made my surgery more efficient," says Banaji. The most popular instruments are Banaji Lasik Shield and Banaji Lasik Spatula and Canulae. "It was simple. I had the designs in my head. Putting them down on paper was the simplest thing," he says. Instruments manufacturers and large multinationals in the US snapped them up. "They would send me computer generated drawings which I would correct and send back. Their level of execution was astounding. Within two weeks of the designs being finalised, the instruments were in the world market."

His instruments are priced at hundreds of dollars each in the US, and are also sold in Switzerland, South America, Korea, Eastern Europe, Africa and Japan. They're available in India at a fraction of the price.

—  
*Shobha John/TNN*

**Write the option that you consider the most appropriate in your answer sheets**

**Q1: Why have some Indian doctors created their own surgical tools?**

- (i) they have no tools to perform specific surgeries
- (ii) they have a hamstring problem
- (iii) the tools they get from abroad cost four times as much
- (iv) they can sell these tools at a very high price.

**Q2: What has Dr Burjor P Banaji created?**

- (i) Lasik surgery
- (ii) Max Eye Care Centre
- (iii) two surgical instruments called Banaji Lasik Shield and Banaji Lasik Spatula and Canulae
- (iv) more than a dozen instruments for operating on the eye.

**Q3:** Where does Dr Banaji get the instruments manufactured?

- (i) India (ii) the United States of America
- (iii) Switzerland (iv) Japan

**Q4:** The term hamstrung refers to .....

- (i) restricted (ii) helped
- (iii) harmed (iv) liberated

**Q5:** What does the phrase slew of instruments refer to?

- (i) a wide range of instruments (ii) instruments used for slaying
- (iii) tools of a similar nature (iv) surgical instruments

**Complete the paragraph that follows by filling up the gaps with the most appropriate option from those given:**

1. Last week the Annual Function of our school (a)..... The Mayor of the town (b)..... to grace the occasion as the chief guest. The function (c)..... by the Principal while the Mayor, the chief guest distributed the prize to the winners.

- (a) (i) is celebrated (ii) had been celebrated (iii) was celebrated (iv) shall be celebrated
- (b) (i) was invited (ii) has been invited (iii) is invited (iv) shall be invited (c) (i) is inaugurated (ii) was inaugurated (iii) will be inaugurated (iv) has been inaugurated

2. For doing transaction through ATM you (a)..... to find an ATM of any bank. First you (b)..... to put your card in the card slot followed by (c)..... the secret PIN. You are to wait till your transaction is complete. Then take the currency, collect your card and leave the ATM cabin.

- (a) (i) shall (ii) are required (iii) should (iv) needed
- (b) (i) have to (ii) need (iii) must (iv) do
- (c) (i) enter (ii) entering (iii) entered (iv) have enter

**3. Captain:** Do you know how to play cricket?

Aryna: Never had a chance to learn it.

Captain: In this school every student has to learn it.

Aryan: Give me a chance and I shall learn it.

The captain asked Aryan (a) \_\_\_\_\_ Aryan replied that he had never got any chance to learn it. The captain then told Aryan (b) \_\_\_\_\_ Aryan requested the captain (c) \_\_\_\_\_

**4. Saumya:** Who is your favourite cricketer?

Aryan: Sachin Tendulkar

Saumya: Why do you like him so much?

Aryna: Because he is a great batsman.

Saumya asked Aryan (a) \_\_\_\_\_ Aryan replied (b) \_\_\_\_\_ Saumya then inquired why (c) \_\_\_\_\_ Aryan told her that he is a great batsman.

**5. Anshu:** Priya, will you go to school fete tomorrow?

Priya: Yes, if you and Anu go there

Anshu: What will you wear?

Priya: Blue Jeans and orange top.

Anshu asked Priya (a) \_\_\_\_\_ the day after. Priya replied that (b) \_\_\_\_\_ Anshu then inquired (c) \_\_\_\_\_ Priya told her that she would wear blue jeans and orange top.

**6. Rohan:** Rakhi, give me your phone number,

Rakhi: Look it up in the directory

Rohan: What is your father's name?

Rakhi: It is also in the directory

Rohan asked Rakhi (a) \_\_\_\_\_ Rakhi advised him (b) \_\_\_\_\_ Rohan then asked (c) \_\_\_\_\_

Rakhi replied that it was also in the directory.

7. Kanak: have you seen “Three idiots”?

Kartik: I saw them yesterday in my class

Kanak: I was talking about the movie.

Kartik: I thought that you were talking about three idiots in the class.

Kanak asked Kartik (a) \_\_\_\_\_ three Idiots, Kartik replied that (b) \_\_\_\_\_ class. Kanak further said that (c) \_\_\_\_\_ about the movie. Kartik said that he had thought she had been talking about three Idiots in the class.

8. Sanjay: I am surprised to see you here in Delhi. When did you come?

Madan: I came here yesterday. I have been offered a job here Sanjay told Madan (a) \_\_\_\_\_ and asked (b) \_\_\_\_\_ Madan replied that he had come there the previous day and added that (c) \_\_\_\_\_ a job there.

9. Ray: I have invited four of my friends for dinner today.

Renu: Then I will invite my friends also.

Ray: That will a good idea

Renu: What should we have for dinner?

Ray: Let us decide the menu now.

Ray told Renu that (a) \_\_\_\_\_ then Renu said (b) \_\_\_\_\_ which Ray thought would be a good idea.

When Renu asked (c) \_\_\_\_\_ Ray replied that they should decide the menu.

10. Anushka: Why do you look so sad?

Amit: I have lost my wallet

Anushka: Where did you lose it?

Amit: Somewhere in the school

Anushka asked Amit (a) \_\_\_\_\_ Amit told her (b) \_\_\_\_\_ Anushka wanted to know (c) \_\_\_\_\_ Amit said that he had lost it somewhere in the school.

### 1. Questionnaire Making

Prepare 15 multiple choice questions from the each story

- Letter to God
- Nelson Mandela: Long Walk to Freedom
- His first Flight

### 2. Composition

- On the behalf of Lencho , write a letter to God to demand the 100 pesos
- Write a diary expressing any one positive change which you will bring in yourself after the summer vacations (80-100 words).

### 3. Creation with Proverb

Describe any two the following proverb in your own words(80-100 words) in the context of the Lesson you have read in Periodic Test-1.

- “God helps those who help themselves”
- “No pain No gain”

“Necessity is the mother of invention”

# Mathematics

## 1. Lab Manual Activities 1 to 8 and 10

## 2. Solve the Following Worksheets

Class - X

Chapter:- Polynomials

**Q01 :-** Find the Zeroes of the following quadratic polynomials and verify the relationship between the zeroes and the coefficients:-

- a)  $5x^2 - 29x + 20$
- b)  $2\sqrt{2}x^2 - 9x + 5\sqrt{2}$
- c)  $3\sqrt{3}x^2 - 19x + 10\sqrt{3}$
- d)  $x^2 - x - 72$
- e)  $x^2 - 2$
- f)  $x^2 - 5x$
- g)  $x^2 - 9$

**Q02 :-** Form the Quadratic polynomials whose zeros are:-

- a)  $3 \pm \sqrt{2}$
- b)  $-\sqrt{2}$  and  $\sqrt{2}$
- c)  $\frac{1}{3}$  and  $\frac{1}{4}$
- d)  $-5$  and  $-3$
- e)  $3$  and  $\frac{1}{5}$
- f)  $\frac{1}{a}, \frac{1}{b}$

### SECTION A: (1 MARK)

1. If  $\alpha, \beta, \gamma$  are the zeroes of the polynomial  $7x^3 + x^2 - 13x + 8$  then find the value of  $\alpha\beta + \beta\gamma + \gamma\alpha$ . (Board 2011) (-13/7)
2. Frame a quadratic polynomial  $p(x)$  whose sum of zeroes is  $-3$  and product of zeroes is  $-2/3$ . (Board 2015) ( $3x^2+9x-2$ )
3. If one zero of the quadratic polynomial  $(k+3)x^2 + kx + 3$  is  $-2$  find  $k$ . (-15/2)
4. Find the degree of the polynomial  $(x-1)(x^2+x-x^4+2)$  (Board 2016) (5)
5. If  $\alpha$  and  $\frac{1}{\alpha}$  are the zeros of the polynomial  $3x^2 + x + (k-2)$  find  $k$ . (5)

### SECTION B: (2 MARKS)

6. If  $\alpha$  and  $\beta$  are the zeroes of quadratic polynomial  $2x^2 - 4x + b$ , find  $b$  if  $2\alpha + 3\beta = 8$ . (-16)
7. If  $\alpha$  and  $\beta$  are the roots of the quadratic polynomial  $p(x) = x^2 - (k+3)x + 2(3k-4)$  find  $k$  if  $\alpha + \beta = \frac{1}{2}\alpha\beta$ . (Exemplar) (7/2)



- For what value of  $k$ , the following pair of linear equations has infinite number of solutions:  
 a)  $2x + 3y = 2$ ;  $(k+2)x + (2k+1)y = 2(k-1)$ .  
 b)  $Kx + 3y = -7$ ;  $2x + 6y = 14$
- If the lines given by  $3x + 2ky = 2$  and  $2x + 5y + 1 = 0$  are parallel, then find the value of  $k$ .
- For which value(s) of  $k$  will the pair of equations have no solution.  
 $kx + 3y = k - 3$ ;  $12x + ky = k$
- For what value of  $k$ , the following system of equations has unique solution?  
 a)  $2x + ky = 1$ ,  $3x - 5y = 7$ ; b)  $2x + 3y - 5 = 0$  and  $kx - 6y - 8 = 0$ .
- Solve the following pair of equations by the substitution method.  
 a)  $x + 3y = 6$ ,  $2x - 3y = 12$   
 b)  $x + y = 6$ ,  $x - y = 2$ .
- Solve for  $x$  and  $y$  by using elimination method.  
 a)  $6x - 3y + 10 = 0$ ,  $2x - y + 9 = 0$   
 b)  $\frac{x}{3} + \frac{y}{4} = 4$ ,  $\frac{5x}{6} - \frac{y}{8} = 4$
- Solve for  $x$  and  $y$  by cross multiplication method.  
 a)  $5x + 3y = 35$ ,  $2x + 4y = 28$ ; b)  $2x + 3y = 11$ ,  $x + 2y = 7$
- Solve for  $x$  and  $y$ : a)  $43x + 67y = -24$ ,  $67x + 43y = 24$  b)  $29x + 41y = 169$ ,  $41x + 29y = 181$
- Draw the graphs of the equations  $x - y + 1 = 0$  and  $3x + 2y - 12 = 0$ . Determine the coordinates of the vertices of the triangle formed by these lines and the  $x$ -axis, and shade the triangular region.
- Draw the graphs of the equations  $4x - y - 8 = 0$ ,  $2x - 3y + 6 = 0$ . Also determine the vertices of the triangle formed by the lines and  $x$ -axis.
- Draw the graph of the pair of equations  $2x + y = 4$  and  $2x - y = 4$ . Write the vertices of the triangle formed by these lines and the  $y$ -axis. Also find the area of this triangle.

### SECTION-A

- For what value of  $k$  system of equations  
 $x + 2y = 3$  and  $5x + ky + 7 = 0$  has a unique solution. 1
- Does the point  $(2, 3)$  lie on line of graph of  $3x - 2y = 5$ . 1

### SECTION-B

- For what values of  $a$  and  $b$  does the pair of linear equations have infinite number of solutions  

$$\begin{aligned} 2x - 3y &= 7 \\ ax + 3y &= b \end{aligned}$$
2
- Solve for  $x$  and  $y$   

$$\begin{aligned} 0.4x + 0.3y &= 1.7 \\ 0.7x - 0.2y &= 0.8 \end{aligned}$$
2



6. Sum of the ages of a father and the son is 40 years. If father's age is three times that of his son, then find their ages 3

### SECTION-D

7. Solve the following pair of equations graphically.  
 $3x + 5y = 12$  and  $3x - 5y = -18$ . 4  
Also shade the region enclosed by these two lines and  $x$ -axis.
8. The sum of a two digit number and number obtained on reversing the digits is 99. If the number obtained on reversing the digit is 9 more than the original number, find the number. 4



## PUNJABI

1. ਜੀਵਨ ਬਿਉਰਾ ਦਸ ਗੁਰੂ ਸਹਿਬਾਨ ਤੇ ਸ਼੍ਰੀ ਗੁਰੂ ਗ੍ਰੰਥ ਸਾਹਿਬ ਜੀ ਬਾਰੇ ਸੰਖੇਪ ਜਾਣਕਾਰੀ ਦਿਉ।
2. ਪੰਜਾਬੀ ਸੱਭਿਆਚਾਰ ਦੀਆਂ ਅਲੋਪ ਹੋ ਰਹੀਆਂ ਵਸਤੂਆਂ ਬਾਰੇ ਜਾਣਕਾਰੀ ਦਿਉ।
3. ਆਪਣੇ ਮਿੱਤਰ/ਸਹੇਲੀ ਨੂੰ ਗਰਮੀਆਂ ਦੀਆਂ ਛੁੱਟੀਆਂ ਇਕੱਠੇ ਬਿਤਾਉਣ ਲਈ ਪੱਤਰ ਲਿਖੋ।
4. ਵਿਦੇਸ਼ਾਂ ਵਿੱਚ ਜਾਣਾ : ਮਜ਼ਬੂਰੀ ਜਾਂ ਲਾਲਚ. ਵਿਸ਼ੇ ਤੇ 200 ਸ਼ਬਦਾਂ ਵਿੱਚ ਲੇਖ ਲਿਖੋ।
5. ਪੰਜਾਬੀ ਵਿਆਕਰਨ ਦੀ ਪੁਸਤਕ ਤੇ ਪੰਨਾਂ ਨੰਬਰ 476 ਉੱਪਰ ਦਿੱਤੀ ਗਈ ਤਸਵੀਰ ਨੰਬਰ 10 ਅਤੇ 11 ਨੂੰ 50-60 ਸ਼ਬਦਾਂ ਵਿੱਚ ਵਰਣਨ ਕਰੋ।

## SCIENCE

### Physics Worksheet

**Question 1.** Define the principal focus of a concave mirror.

**Question 2.** Which mirror is used by dentists?

**Question 3.** What are the advantages and disadvantages of using convex mirror for seeing traffic at the rear?

**Question 4.** What are the advantages and disadvantages of using a convex mirror for seeing traffic at the rear?

**Question 5.** The refractive index of diamond is 2.42. What is the meaning of this statement?

**Question 6.** A ray is incident along ACB on a spherical mirror, where C is the centre of curvature.

**Question 7.** Find the focal length of a convex mirror whose radius of curvature is 32 cm.

**Question 8.** Why do we prefer a convex mirror as a rear-view mirror in vehicles?

**Question 9.** What happens when the rays of sun are focused at a point on the paper by using concave mirror?

**Question 10.** How is the refractive index of an optical medium related to the speed of light in that medium?

**Question 11.** Define the term absolute refractive index of a medium.

## Chemistry Worksheet

- Q 1.** Write a chemical equation when magnesium metal reacts with aqueous hydrochloric acid to produce a solution of magnesium chloride and hydrogen gas.
- Q 2.** Can a combination reaction be redox reaction.
- Q 3.** Why do we apply paint on iron articles?
- Q 4.** What are the different types of reactions?
- Q 5.** What is a decomposition reaction ? Give example.
- Q 6.** Why does the color of copper sulphate solution change, when an iron nail is dipped in it?
- Q7.** Define displacement reaction.
- Q8.** Convert the following word equation to a balanced chemical equation:  
Magnesium + Oxygen  $\longrightarrow$  Magnesium Oxide
- Q9.** Write balanced chemical equations for the following word equations:
- A.** Calcium hydroxide + Carbon dioxide Calcium carbonate + Water  
Skeletal equation: \_\_\_\_\_  
Balanced equation: \_\_\_\_\_
- B.** Zinc + Silver nitrate Zinc nitrate + Silver  
Skeletal equation: \_\_\_\_\_  
Balanced equation: \_\_\_\_\_
- C.** Aluminium + Copper chloride Aluminium chloride + Copper Skeletal equation: \_\_\_\_\_  
Balanced equation: \_\_\_\_\_
- D.** Potassium bromide (aq) + Barium iodide (aq) Potassium iodide (aq) + Barium bromide(s)  
Skeletal equation: \_\_\_\_\_  
Balanced equation: \_\_\_\_\_
- E.** Zinc carbonate(s) Zinc oxide(s) + Carbon dioxide(g)  
Skeletal equation: \_\_\_\_\_  
Balanced equation: \_\_\_\_\_
- Q10** Why is photosynthesis considered as an endothermic reaction?
- Q11.** Give an example of a chemical reaction characterized the change in temperature.
- Q 12.** What type of chemical reactions take place when:
- Limestone is heating?
  - A magnesium wire is burnt in air?
  - Electricity is passed through water?
  - Ammonia and hydrogen chloride are mixed?
  - Silver bromide is exposed to sunlight?

## Biology Worksheet

- In which kind of respiration is more energy released?
- Define photolysis.
- State the role of the following in human digestive system :
  - Digestive enzymes
  - Hydrochloric acid
  - Villi
- How are water and minerals transported in plants ?

5. Differentiate between arteries and veins.
  6. Why do the walls of the trachea not collapse when there is less air in it?
  7. What are the final products after digestion of carbohydrates and proteins?
  8. How are the alveoli designed to maximise the exchange of gases?
  9. Name the component of blood that helps in the formation of blood clot in the event of a cut.
  10. What will happen to a plant if its xylem is removed?
  11. What is the mode of nutrition in human beings?
- **Complete the Lab Manual of Physics, Chemistry and Biology.**
  - **Revise whole Periodic Test- I Syllabus.**

## SOCIAL SCIENCE

- ★ Make a project on Disaster management (12-15 pages).
- ★ Make timeline of Chapter -1 (History) The Rise of Nationalism in Europe.
- ★ Make a flowchart on Classification of resources. ( Poster)
- ★ Make an assignment on the following topics (12-15 pages)
  - a). National Development
  - b). Average Income
  - c). Public Facilities
  - d). Sustainable development
- ★ Revise full syllabus of PT 1 Examination.

## INFORMATION TECHNOLOGY

**Make a practical file of the following topics :-**

- ❖ **UNIT – 1 :-**
    - Digital Documentation (advanced)
    - Using the styles and formatting windows
    - Using fill formats
    - Create a new style using drag and drop
    - Creating a template
    - Updating a document.
  - ❖ **UNIT – 2 :-**
    - Electronic spreadsheet (Advanced)
    - Creating Subtotals
    - Using goal seek and solver
    - Creating reference to other document by using keyboard and mouse.
    - Working with Hyper Link.
    - Create Hyper Link within the workbook
    - Setting up a spreadsheet for sharing.
- 
- ❖ Prepare Paintings on the given topics:-
    - Make Portraits of any two Indian Freedom Fighters
    - 2 Paintings – Still Life
    - 2 Paintings – Landscape
  - ❖ Make a article with Best Out of Waste Material.

## CELEBRATIONS

### World Environment Day Activity

Let's nurture the nature so that we can have a better future. Hurray! it's time to celebrate the World Environment Day on 5<sup>th</sup> June. Even a small change can make a huge difference to our world. Are you up for the change challenge?

**Plant trees on the eve of World Environment Day. Click the photographs and send to your Form Educators**



### FATHERS' DAY CELEBRATION

**On the account of Fathers' Day Celebration on 19 June, 2022, Make a favourite dish of your father with the help of your mother and serve it to your father. Click the photographs and short clips and send to your Form Educator.**

### INTERNATIONAL YOGA DAY

To keep you and your family members fit it's important to do yoga daily.

We celebrate YOGA DAY on 21st June so on that day all the Family members should do yoga and send the photos and videos to the Form Educator.

