

**Vacation Homework (2019-2020)**

**Class X**

<b>Subject</b>	<b>Homework</b>
Mathematics	Do Assignment No.1
English Language & Literature	Do Assignment No.1
हिन्दी व्याकरण व साहित्य	<p>1. अपठित गद्यांश - (क्रम संख्या 20,21)</p> <p>2. अपठित काव्यांश - (क्रम संख्या 12,14)</p> <p>3. व्यावसायिक शिक्षा का महत्व विभिन्न प्रकार के दूरदर्शन (विज्ञापन बनाइए, रंगीन)</p> <p>4. आपके विद्यालय में कक्षा संघा का आयोजन किया जा रहा है, जिसमें विद्यार्थियों को भाग लेने हेतु आमंत्रित करते हुए एक सूचना लिखिए। बोठ समस्त कार्य कक्षा कार्य की कॉपी में करें।</p>
संस्कृत	अपठित गद्यांश व अपठित पद्यांश पेज न.12, 17 चित्रवर्णन, अनौपचारिक पत्र, समास अल्पवीभाव, तत्पुञ्ज, बहुव्रीहि, (परिभाषा व उदाहरण केवल-5), संधि (सत्री के पंच-पौष उदाहरण), अधुन्य वाक्यों को शुद्ध करना।
Social Science	<p>1. Do Assignment No.1</p> <p>2. Prepare a project on any one Social Issues or Sustainable Development</p> <p>3. The new Government with the list of Union Cabinet Ministers (of 15 main portfolios)</p>
Science	<p><b>Physics</b> Assignment No. 1 (Light: Reflection &amp; Refraction),</p> <p><b>Biology:</b> Assignment No. 1</p> <p><b>Chemistry:</b> Write the following activities in a separate notebook with well labelled diagrams from NCERT book.</p> <p>* Activity: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 1.10, 1.11</p> <p>*Activity: 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 2.10, 2.11, 2.12, 2.13, 2.14, 2.15</p> <p>*Activity: 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 3.10, 3.11, 3.12, 3.13, 3.14.</p> <p>(2) Write question and answers of Intex and exercise questions of chapter 1, 2, 3</p>

Value Education	<p>1. Plant a sapling in a small pot. Water it every day. Take care of the plant. Bring it to school when asked.</p> <p>2. Keep a bowl of water and grains outside your home every day for the birds and animals.</p>
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**Periodic Assessments: PA-1 (Revised Dates)**

**June 25, 2019 (Tuesday): Mathematics**

**June 26, 2019 (Wednesday): Social Science**

**June 27, 2019 (Thursday): Science**

**June 28, 2019 (Friday): English Language & Literature**

**June 29, 2019 (Saturday): Hindi Course-B/Sanskrit**

- Vacation Homework 5 marks are allotted for each subject. These marks will be added.
- Learn for the Periodic Assessments (remaining PA-1 and full PA-2) scheduled to be held in June & July.
- Value Education: Students will be given grades on Regularity & Punctuality, Behaviour in Class/School, Uniform, Cleanliness & Hygiene, Good Manners, Mess Etiquettes & Sports.
- School re-opens on June 24, 2019 (Monday) Timing: Message will be sent.
- **All the H.W. Assignment Sheets can be downloaded from the school website May 8 onwards.**
- School re-opens on June 24, 2019 (Monday) Timing: Message will be sent.



# BHARTIYAM VIDYA NIKETAN

Vacation Homework Assignment-1

Subject: Maths

Class: X

- Use Euclid's division algorithm to find the HCF of the following pairs of positive integers.  
(i) 105 and 245                      (ii) 9828 and 38220  
(iii) 3444 and 410                    (iv) 305 and 793
- Use Euclid's division algorithm and find the largest number which divides 867 and 357.
- Show that the cube of a positive integer of the form  $6q + r$ , where  $q$  is an integer and  $r = 0, 1, 2, 3, 4, 5$  is also of the form  $6m + r$ .
- Show that  $17 \times 41 \times 43 \times 61 + 43$  is a composite number.
- Write the prime factorisation of the number 27300. In the factorisation find  
(i) the total number of primes and  
(ii) the total number of distinct primes.
- Find the HCF and LCM of 15, 75 & 160 by using prime factorisation method.
- Find the HCF and LCM of 12576 and 4052 by using the prime factorisation method.
- Prove that  $\sqrt{7}$  is an irrational number.
- Prove that  $5 - \sqrt{5}$  is an irrational number.
- Without actually performing the long division state whether the following rational numbers will have a terminating or a non-terminating repeating decimal expansion.  
(i)  $\frac{83}{2^3 5^2}$       (ii)  $\frac{25}{160}$       (iii)  $\frac{29}{9261}$       (iv)  $\frac{32}{455}$   
Also write the decimal expansions of those rational numbers which have terminating decimal expansions.
- Find the zeroes of the polynomials:  
(i)  $x^2 - 1$       (ii)  $-x^2 + 2x + 3$       (iii)  $x^2 - 3x + 2$       (iv)  $-3x^2 + 2x - 1$       (v)  $-x^2 + 9$   
(vi)  $-4x^2 + 4x - 1$
- If  $\alpha$  and  $\beta$  be two zeroes of the quadratic polynomial  $p(x) = 2x^2 - 3x + 7$ , evaluate  
(i)  $\frac{1}{\alpha} + \frac{1}{\beta}$       (ii)  $\alpha^2 + \beta^2$       (iii)  $\alpha^3 + \beta^3$       (iv)  $\frac{1}{2\alpha - 3} + \frac{1}{2\beta - 3}$
- If the sum of the squares of zeros of the polynomial  $6x^2 + x + k$  is  $\frac{25}{36}$  find the value of  $k$ .
- If  $\alpha$  and  $\beta$  are the two zeroes of the quadratic polynomials  $x^2 - 3x + 7$ , find a

quadratic polynomial whose zeroes are  $\frac{1}{\alpha}$  and  $\frac{1}{\beta}$ .

15. Find the zeroes of the following quadratic polynomials and verify the relationship between the zeroes and their coefficients.

(i)  $x^2 + x - 2$  (ii)  $21t^2 - t - 2$  (iii)  $25u^2 - 15u + 2$  (iv)  $5t^2 - 17$  (v)  $7y^2 - \frac{11}{3}y - \frac{2}{3}$

(vi)  $3x^2 + 4x - 4$

16. On dividing  $2x^3 + 4x^2 + 5x + 7$  by a polynomial  $g(x)$  the quotient and remainder were  $2x$  and  $7 - 5x$  respectively, find  $g(x)$ .

17. On comparing the ratios  $\frac{a_1}{a_2}$ ,  $\frac{b_1}{b_2}$  and  $\frac{c_1}{c_2}$ , find out whether the following pair of linear equations are consistent or in consistent.

(i)  $3x + 2y = 5$   
 $5x - 3y = 11$  (ii)  $\frac{3}{2}x + \frac{5}{3}y = 7$   
 $9x - 10y = 14$  (iii)  $\frac{4}{3}x + 2y = 8$   
 $2x + 3y = 12$  (iv)  $2x - y = 3$   
 $4x - y = 5$

18. Solve the following pairs of linear equations

(i)  $3x - 2y + 8 = 0$  (ii)  $3x - y = 3$  (iii)  $2x + y = 6$   
 $2x + 3y - 12 = 0$  (iv)  $x + 2y = 8$  (v)  $4x - 2y = 4$

19. For which value (s) of  $p$ , do the pair of linear equations  $px - y = p^2$  and  $x + py = 1$  have.  
 (i) no solution (ii) infinitely many solutions (iii) a unique solution

20. Find the value(s) of  $p$  if the lines represented by

(i)  $3x - y - 5 = 0$  &  $6x - 2y - p = 0$  are parallel

(ii)  $-3x + 5y = 7$  &  $2px - 3y = 1$  intersect in a unique point.

21. Write a pair of linear equations which has the unique solution  $x = -1$  &  $y = 3$ . How many such pairs are possible?

22. Solve the following system of linear equation by substitution method:

(i)  $\frac{a}{x} - \frac{b}{y} = 0$  ;  $\frac{ab^2}{x} + \frac{a^2b}{y} = a^2 + b^2$  (ii)  $x + y = a + b$  (iii)  $7s - 15t = 2$   
 $ax - by = a^2 - b^2$  (iv)  $s + 2t = 3$

(v)  $2x + y = 6$   
 (vi)  $3x + 2y = 11$

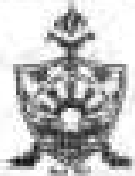
23. Solve the following pair of linear equation by the elimination method:

(i)  $x + y = 14$  (ii)  $\frac{3x}{2} - \frac{5y}{3} = -2$  (iii)  $\sqrt{2}x + \sqrt{3}y = 0$  (iv)  $x + 0.5y = 3.5$   
 $x - y = 4$  (v)  $\frac{x}{3} + \frac{y}{2} = \frac{13}{6}$  (vi)  $\sqrt{3}x - \sqrt{3}y = 0$  (vii)  $0.5x + 0.3y = 1.9$

24. The angle of a triangle are  $x$ ,  $y$  and  $40^\circ$ . The difference between the two angles  $x$  and  $y$  is  $30^\circ$ , find  $x$  and  $y$ .

25. Solve the following equation by cross multiplication method.

(i)  $10x + 3y = 11$  (ii)  $21x + 35y = 33$  (iii)  $6x + 5y = 11$  (iv)  $11x + 5y = 16$   
 $11x + 5y = 7$  (v)  $49x + 70y = 67$  (vi)  $9x + 10y = 21$  (vii)  $7x + 13y = 14$



# BHARTIYAM VIDYA NIKETAN

Vacation Homework Assignment-1

Class - X

Subject : English

April 26, 2019

## Writing Skills.

1. Using the information given below with your own views, write an article in about 100-120 words on 'War on Black Money in India'. You are Raj Gupta/ Rohini Gupta.

### Hints:

Crackdown on black money - G20 summit in London- era of banking secrecy over-India, a strong supporter of the move-black money a political football in India-rather than looking for foreign hand battle must be waged at home, unless generated at home money can't be transferred abroad-tax rates must be moderate and simple-time to push ahead the new direct tax code.

2. Our metropolitan cities witness a large number of accidents every day. What do you think is the reason? What can be done to bring down the rate of accidents? Write a letter in about 100-120 words to the Editor of a national daily expressing your concerns and offering solutions to this problem.

3. Write a short story, in about 150-200 words with the clues given below. Write a suitable title and the moral of the story.

An old lady on road ..... a biker with a pillion-rider..... pulls her gold chain ..... chased by a young man ..... chain-snatchers caught..... beaten..... handed over to the police.

- (i) Fill in the following blanks choosing the most appropriate option from the ones given below. Write the answers in your answer-sheet against the correct blank number.

Pt. Jawahar Lal Nehru(a) ..... born on 14 November, 1889 (b) ..... Allahabad. His father Shri Moti Lal Nehru was (c) ..... famous lawyer. Jawahar got his early education (d)..... home. He was sent (e)..... England for highest studies.

- |             |          |            |           |
|-------------|----------|------------|-----------|
| (a) (i) is  | (ii) was | (iii) had  | (iv) has  |
| (b) (i) at  | (ii) in  | (iii) into | (iv) on   |
| (c) (i) the | (ii) a   | (iii) an   | (iv) most |
| (d) (i) in  | (ii) on  | (iii) at   | (iv) for  |
| (e) (i) for | (ii) in  | (iii) into | (iv) to   |

- (ii) In the passage given below, one word has been omitted in each line. Write the missing word, in lines of the given paragraph, along with the word that comes before and the word that comes after it in the space provided.

	Before	Missing	After
One day officer received a phone call	(a).....	.....	.....
He the Sub-inspector of the local police	(b).....	.....	.....
station. Was about an	(c).....	.....	.....
elephant had entered the village and killed	(d).....	.....	.....
a man. The officer started to see the elephant	(e).....	.....	.....
on the way.			

- (iii) Rearrange the following word clusters to make meaningful sentences.

- (a) freedom/very/of/democracy/in/press/important/is  
 (b) can/but/here/most/time/abused/of/the/be/it/only  
 (c) affects/both/lives/people/of/it/then/the/ordinary/government/and/the  
 (d) as the/democracy/the press/custodian/functions/of  
 (e) elected/good/therefore/it/important/that/only/are/leaders/is

## Assignment-2

(i) Fill in the following blanks choosing the most appropriate option from the ones given below. Write the answer in your answer-sheet against the correct blank number.

The birds are (a).....descendants of dinosaurs. (b) It ..... now accepted by almost (c)..... evolutionary biologists. The clinching discovery (d)..... of animals that (e)..... clearly dinosaurs and clearly could not fly.

- |               |           |             |           |
|---------------|-----------|-------------|-----------|
| (a) (i) a     | (ii) an   | (iii) the   | (iv) few  |
| (b) (i) was   | (ii) is   | (iii) has   | (iv) had  |
| (c) (i) whole | (ii) all  | (iii) every | (iv) each |
| (d) (i) is    | (ii) were | (iii) was   | (iv) have |
| (e) (i) was   | (ii) were | (iii) are   | (iv) is   |

(ii) The following passage has not been edited. There is one error in each line. Write the correct word and the correction against the correct question number, in lines of the given paragraph. Remember to underline the word you have supplied.

	Error	Correction
A promising young lad by kidney	(a).....	.....
without repair and the other	(b).....	.....
damage in a car accident is on	(c).....	.....
dialysis in Apollo Hospital. Donors have	(d).....	.....
invited to offer one from their kidneys	(e).....	.....
to save this sole bread earner.		

(iii) Read the conversation carefully and complete the blanks given in the passage.

Father : Why don't you play outdoor games?

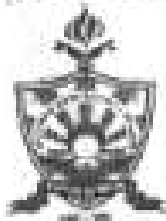
Manav : I love to play chess only.

Father : Do you know the importance of outdoor games?

Manav : I know that chess develops intellect.

Father : You must play some outdoor games.

Father asked Manav (a)..... . Manav replied him by saying (b)..... . When father asked him(c)..... . The son promptly replied that (d)..... . Then father suggested him (e).....



# BHARTIYAM VIDYA NIKETAN

*Vacation Assignment-1*

*Subject :- Geography*

*Chapter - Resources and Development*

*Class X*

**I. Answer the following questions in one word / sentences.**

1. These are living resources like forests and forest products, agriculture, animals, birds, marine life, etc.
2. These resource can be renewed after use.
3. This type of soil is generally sandy in texture and saline in nature.
4. The organic matter in soil.
5. Black cotton soil is known as.

**II. Very Short Answer Type Questions :**

1. Why are resources necessary?
2. Which problems are discussed in the first earth Summit.
3. What do you mean by Deccan trap?
4. Who wrote the book 'Small is beautiful'?
5. Why are red soils red in colour?
6. Name two factors for the formation of rock soil.
7. What is a ravine? Name an area where it is found.
8. Name two states where the net sown area is less than 10%.
9. Give examples of community owned resources in village and in urban areas.
10. What is the main purpose of resource?

*Subject :- Economics*  
*Chapter - Development*

**Answer the following questions in one word / sentences.**

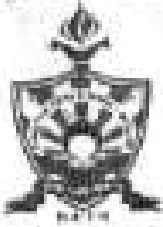
1. What are the various social indicators of development?
2. Mention any three characteristics of development.
3. Describe any three Public facilities needed for development.
4. Which neighbouring country has better performance in terms of HDI compared to India?
5. What is the other name of per capita Income?
6. Who publishes the Human Development Report?
7. What is environmental degradation?
8. Which state has the lowest poverty in India?
9. What should India do to become a developed country?
10. Write a short note on the problem of ground water in India.

*Subject :- Civics*  
*Chapter - Power Sharing*

**Very Short Type Questions :-**

1. Name any two countries with which Belgium has borders.
2. What is the significance of the word 'Ethnic'?
3. Which two languages are generally spoken in Belgium?
4. Name the historical language of Southern Belgium.
5. Which country has adopted Buddhism as its official religion?
6. Majoritarianism is followed in which country?
7. Suggest the prudential reason why power sharing is good for democracy?
8. What do you mean by the horizontal sharing of power?
9. Which system of power sharing is called checks and balances?
10. Apart from the Central and the State Governments, which is the third type of government practised in Belgium?
11. What is meant by the term 'Power Sharing'?
12. Name any two Asian countries where there is a conflict between the linguistic and ethnic groups.
13. What are moral reasons?
14. Define the concept 'Civil War'.
15. Why power sharing is necessary for a culturally diverse country like India?
16. Why is power sharing desirable?
17. How is power shared among different organs of government?
18. Describe the system of power sharing in Indian government.
19. What does sharing of power among political parties, pressure groups and movements ensure?
20. What can we learn from the principles of accommodation followed in Belgium and Sri Lanka?





# BHARTIYAM VIDYA NIKETAN

*Vacation Assignment-2*

*Subject :- Geography*

*Class X*

Q1. Map - On the outline map of India, locate and label the following dams:

(a) Salal

(b) Bhakra Nangal

(c) Tehri

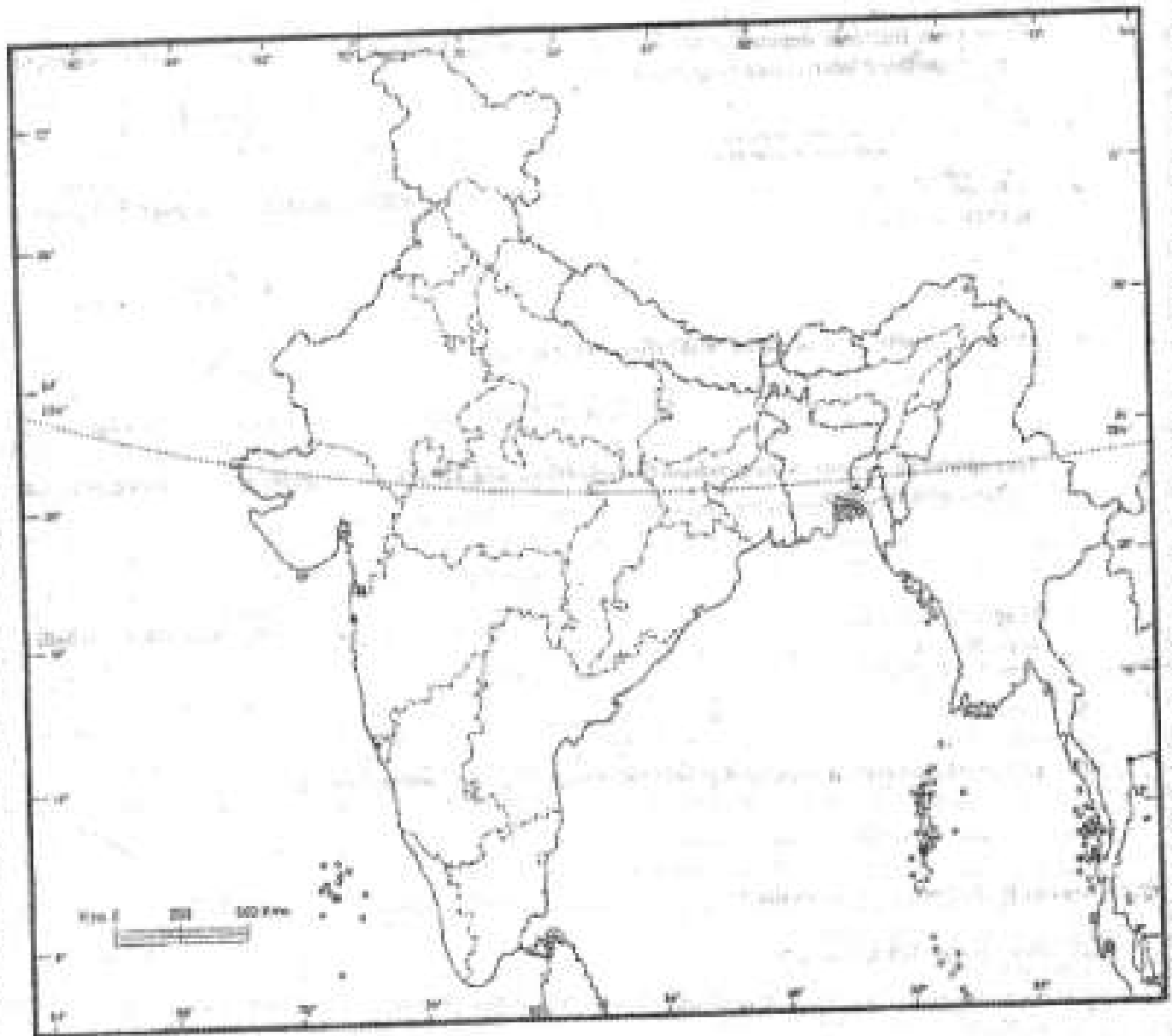
(d) Rana Pratap Sagar

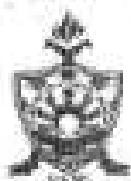
(e) Sardar Sarovar

(f) Hirakund

(g) Nagarjuna Sagar

(h) Tungabhadra





# BHARTIYAM VIDYA NIKETAN

Vacation Homework Assignment-1

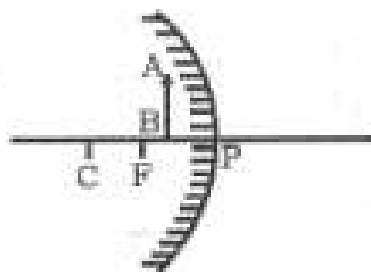
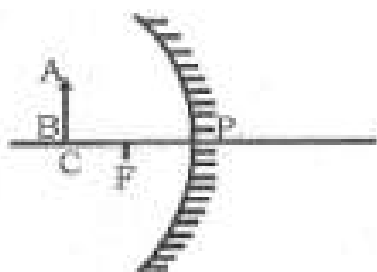
Class - X

Subject : Physics

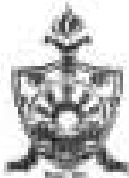
- Q1. Why does the sky look blue on a clear sky?
- Q2. What should be the position of the object in front of a concave mirror so that the image and the object have the same size?
- Q3. What will be the angle of reflection in the given figure?



- Q4. Explain with the help of a diagram why a pencil partly immersed in water appears to be bent at the water surface.
- Q5. Why does a ray of light bend when it travels from one medium to another?
- Q6. What is the minimum number of rays required for locating the image formed by a concave mirror for an object? Draw a ray diagram to show the formation of a virtual image by a concave mirror.
- Q7. Complete the path of the ray.



- Q8. State any four characteristics of the image of an object formed by a plane mirror.
- Q9. Between which two points of a concave mirror should an object be placed to obtain a magnification of  $-3$ ?
- Q10. Explain why a ray of light passing through the centre of curvature of a concave mirror, gets reflected along the same path.
- Q11. What is the nature of the image formed by a concave mirror if the magnification produced by the mirror is  $+3$ ?
- Q12. Distinguish between a real and a virtual image of an object. What type of image is formed (i) by a plane mirror, (ii) on a cinema screen?
- Q13. A ray of light travelling in air enters obliquely into water. Does the light ray bend towards or away from the normal? Why? Draw a ray diagram to show the refraction of light in this situation.
- Q14. What is a spherical mirror? State its two types. Define the following terms related to spherical mirrors.  
(i) Pole (ii) Centre of curvature (iii) Principal axis (iv) Principal focus



# BHARTIYAM VIDYA NIKETAN

Vacation Homework Assignment-1

Class - X

Subject : Biology

*Handwritten:*  
Sangeeta  
May 01, 2019

*Note: Attempt All the Questions*

- Q1.** The process of digestion of food in humans begins in  
(a) Stomach                      (b) Food pipe      (c) Mouth                      (d) Small intestine
- Q2.** Where are proteins first digested in alimentary canal  
(a) Small intestine      (b) Oesophagus (c) Mouth                      (d) Stomach
- Q3.** Which part of alimentary canal receives bile from the liver  
(a) Oesophagus                      (b) Small intestine  
(c) Stomach                      (d) Large Intestine
- Q4.** One of the following organisms can live without oxygen of air. This organism is  
(a) Amoeba                      (b) Yak                      (c) Yeast                      (d) Leech
- Q5.** Which of the following is most likely to have a much higher breathing rate  
(a) Man                      (b) Fish                      (c) Dog                      (d) Sparrow
- Q6.** "All plants give out oxygen during day and carbon dioxide during night". Do you agree with the statement? Give reason.
- Q7.** Mention the major events during photosynthesis.
- Q8.** Why does absorption of digested food occur mainly in the small intestine?
- Q9.** How do guard cells regulate opening and closing of stomatal pores?
- Q10.** Draw a neat and labelled diagram of human alimentary canal.
- Q11.** Draw a neat and labelled diagram of stomata.
- Q12.** Draw a neat diagram of cross section of a leaf showing site of photosynthesis.
- Q13.** Explain the process of digestion of food in mouth, stomach and small intestine in human body.
- Q14.** (a) "Respiration is a vital function of the body". Justify the statement.  
(b) What advantage a terrestrial animal has over an aquatic animal with regard to obtaining oxygen for respiration.
- Q15.** (a) Describe the process of nutrition in Amoeba with the help of diagram.  
(b) What is the mode of nutrition in Amoeba known as.
- Q16.** Make a flow chart and describe the process of breakdown of food (glucose) by various pathways/means.