



Kailash Vidya Vihar: Nimbahera **(ISO 9001 : 2015)**

Summer Vacation Assignments : 2019-20

Class XII

Subject: Hindi

- ❖ पिछले पाँच साल में बोर्ड परीक्षा में आए हुए कोई 5 निबंध लिखिए।
(300 शब्दों में)
- ❖ पिछले पाँच साल में बोर्ड परीक्षा में आए हुए कोई 5 पत्र लिखिए।
- ❖ पिछले पाँच साल में बोर्ड परीक्षा में आए हुए कोई 5 आलेख लिखिए।
(150 शब्दों में)

Class XII

Subject: Biology

- (1) To Complete Practical File As per the syllabus and instructions given in the class.
- (2) To Prepare Project File based on theory/ practical work As per the Topics Assigned to the Students.

Class XII

Subject: Chemistry

1. Prepare notes on chapter- 1,2,3
2. Complete question- answer of intext and exercises of chapter- 1,2,3

Class XII

Subject: Economics

1. Macro Economics – Unit -1, National income and related aggregates notes and all questions and answer (both theoretical and numerical)
2. Project file (As per cbse)
3. Unit 2 – Money banking
4. Indian economic development – unit 1 – development experience(1947-!990) and economic reforms since 1991 (questions and answers)
5. Comparative development experiences of India and its neighbours (reading, notes and chart and questions and answers)

REVISION TEST OF Ch.-RAY OPTICS 01/05/2019 MM -20

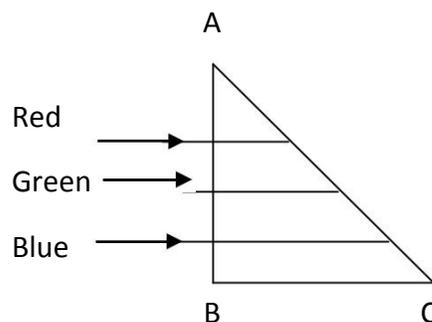
1. An object is held at the principal focus of a concave lens of focal length f . Where is the image formed?
2. A diverging lens of focal length 'F' is cut into two identical parts each forming a Plano-concave lens. What is the focal length of each part?
3. When light travels from a rarer to a denser medium, the speed decreases. Does this decrease in speed imply a decrease in the energy carried by the light wave? Justify your answer.
4. Two thin lenses of power +6 D and -2 D are in contact. What is the focal length of the combination?
5. A converging lens is kept co-axially in contact with a diverging lens – both the lenses being of equal focal lengths. What is the focal length of the combination?
6. For the same value of angle incidence, the angles of refraction in three media A, B and C are 15° , 25° and 35° respectively. In which medium would the velocity of light be minimum.
7. Under what condition does a biconvex lens of glass behaves as a plane glass sheet when immersed in a liquid ?
8. How does focal length of a lens change when red light incident on it is replaced by violet light.
9. Why does bluish color predominate in clear sky?
10. What type of wave front will emerge from a distant sources and a point source?
11. Air bubble is formed inside water. Does it act as converging lens or a diverging lens?
12. State the principle on which the working of an optical fiber is based.
13. What are the necessary conditions for optical fibre phenomenon to occur?
14. How does the angular separation between fringes in slit YDSE experiment change when the distance of separation between the slit and screen is doubled?
15. When monochromatic light travels from one medium to another, its wavelength changes but frequency remains the same. Explain.
16. Write the relationship between angle of incidence ' i ', angle of prism ' A ' and angle of minimum deviation for a triangular prism.

17. Calculate the speed of light in a medium whose critical angle is 30° .
18. Give its two shortcomings of refracting type telescope over reflection type telescope.
19. State the magnification formula of microscope in relaxed vision.
20. Define magnifying power of a telescope.

TWO MARKS QUESTIONS

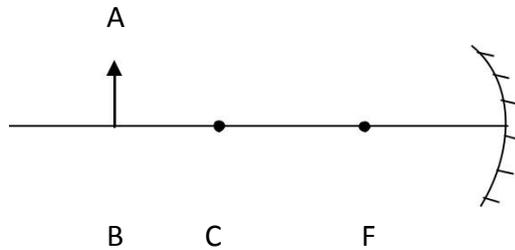
1. Draw a labeled ray diagram to show the image formation in a refracting type astronomical telescope.
2. Define resolving power of a compound microscope. How does the resolving power of a compound microscope change when
 - (i) Refractive index of the medium between the object and objective lens increases?
 - (ii) Wavelength of the radiation used is increased?
3. Define resolving power of a telescope. How does it get affected on
 - (I) Increasing the aperture of the objective lens?
 - (II) Increasing the focal length of the objective lens?
4. Define refractive index of a transparent medium. A ray of light passes through a triangular prism. Plot a graph showing the variation of the angle of deviation with the angle of incidence.

.In the figure given below, light rays of blue, green, red wavelengths are incident on an isosceles right angled prism. Explain with reason, which ray of light will be transmitted through the face AC. The refractive index of the prism for red, green, blue light is 1.39, 1.424, and 1.476 respectively.



5. Define refractive index of a transparent medium. A ray of light passes through a triangular prism. Plot a graph showing the variation of the angle of deviation with the angle of incidence.

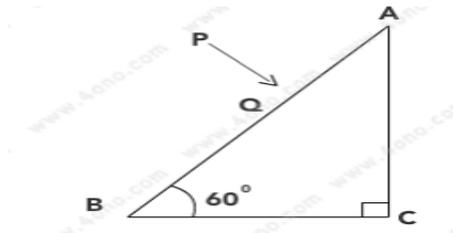
6. (i) State the principle on which the working of an optical fiber is based.
(ii) What are the necessary conditions for this phenomenon to occur?
7. (i) What is the relation between critical angle and refractive index of a material?
(ii) Does critical angle depend on the colour of light? Explain.
8. An object AB is kept in front of a concave mirror as shown in the figure.



Complete the ray diagram showing the image formation of the object

- 10 Draw a labelled ray diagram of a reflecting telescope. Mention its two advantages over the refracting telescope.
- 11 . Draw a schematic ray diagram of a compound microscope when image is formed at distance of distinct Vision .Write the expression for resolving power of a compound microscope. How can the resolving power of a microscope be increased ?
- 12.A ray PQ incident normally on the refracting face BA is refracted in the prism BAC made of material of refractive index 1.5. Complete the path ray through the prism. From which face will the ray emerge ?

justify your answer.



THREE MARKS QUESTIONS

- 1 . (I) Draw a labelled ray diagram to obtain the real image formed by an astronomical telescope in normal adjustment position. Explain briefly its working .

(ii) An astronomical telescope uses two lenses of powers 10 D and 1 D. What is its magnifying power in normal adjustment?

2. You are given two converging lenses of focal lengths 1.25 cm and 5 cm to design a compound microscope. If

it is designed to have a magnification of 30, find out the separation between the objective and the eyepiece

3 : A small telescope has an objective lens of focal length 150 cm and eyepiece of 5 cm. What is the magnifying power of the telescope viewing distant in normal adjustment? If this telescope is used to view a 100 m tall tower 3 km away. what is height of the image O of the tower formed by the objective lens ?

4 : (i) What is the relation between critical angle and refractive index of a material?

(ii) Does critical angle depend on the colour of light? Explain.

5 : You are given the following three lenses. Which two lenses will you use as an eyepiece and as an objective to construct an astronomical telescope ? Give reason.

Lenses	Power (D)	Aperture (cm)
L ₁	3	8
L ₂	6	1
L ₃	10	1

Class XII

Subject: History/Geography

Prepare a project on the topic giving following

- (a) Role of Gandhi ji in national movement – ADEEBA
- (b) Role of women in national movement – NIDHI
- (c) Urban civilization of Harappa – RAJVARDHAN
- (d) Administration under mughals – HARSH
- (e) Development of painting in medieval india-Aditi
- (f) project work Indian religion, Hinduism, Jainism, Budhaism-Avani
- (g) Revolt in india special concern to revolt of 1857-Abhi
- (h) Project on colonial cities- Bombay, Calcutta, madras
- (i) Project on How Indian constitution came in to being-Priya
- (e) Painting in medieval India – Aditi
- (f)

Class XII

Subject: Fine Arts

50 sketches from the topic given below:-

- (i) Human life activities. either one or two figure.
- (ii) Two Black & white Painting of A4 size.

Class XII

Subject: Business Studies

- (i) Project Work on Marketing Mix
- (ii) Practice Questions of Chapter – 1, 2 and 4 from Sandeep Garg OR Poonam Gandhi, Last 5 Years CBSE Board Papers and CBSE Sample Papers
- (iii) Case Studies Questions of Chapter – 1, 2 and 4 from Sandeep Garg OR Poonam Gandhi.

Class XII

Subject: Accounts

1. Project Work on any one company discussed in Class-room.
2. Practice of Solved, Unsolved and Scanner Questions-

Chapter – Fundamental of Partnership, Valuation of Goodwill.

Class XII

Subject: Computer Science

Class XII – A,B,C,D, Computer Sc. With C++

1. Solve Last 5 Yr. Question Paper of following given Units

Unit 1 – C++ Revision – CBSE Board Question 1

Unit -7- Networking - CBSE Board Question 7
2. Practical file – 10 programs in practical file (soft copy) covering following topic
 - I. Random function
 - II. Array
 - III. Function
 - IV. Structure

