LITTLE FLOWERS INTERNATIONAL SCHOOL
CLASS – X HOLIDAYS' HOMEWORK [2018-19]
The School will reopen on 25.06.2018

Dear Students ,

Summer Vacations ! Really a great time for enjoyment and fun. It is the accurate time to discover your potential & to realize your hidden talents. But , at the same time , studies cannot be ignored. So make a proper schedule for daily routine. Be careful , there should be a healthy mix of play and work. Try to spend maximum time with your parents.

ENGLISH : Do the given work in English Writing Skill Register : (1) Read the newspaper daily & enrich your vocabulary.**(2)** Story Writing : Complete the story in 150-200 words(Any one) It was a hot day , a blind man was crossing the road , suddenly a car came.... **OR** A 15 years old boy was going on a deserted street feeling like a little scared and uneasy. Hesitatingly , he stepped ahead. Suddenly..... **(3)** Describe the given proverbs on your own in 100 words : **(a)** No gains without pains **(b)** All's well that end's well **(4)** Read Ch. 1 to 5 of 'The Story of My Life' by Hellen Kellen and present the important findings in form of a flow chart. **(5)** Do the given assignment in unsolved Practice Paper Volume I : **Reading :** (Discursive Passages) Ass. 1 , 2 (Pg. no. 49 , 51) , (Factual Passages) Ass. 1 , 2 , 3 (Pg no. 25 , 27 , 29) **Grammar :** Error Finding - Pg. no. 157 , 158 , Omissions - Pg. no. 160 , 161.

HINDI : (1) निम्नलिखित विषयों पर 200 से 250 शब्दों में निबंध लिखो (व्याकरण पुस्तिका में) – सत्संगति , योग और व्यायाम का जीवन में महत्व , आदर्श नागरिक , मोबाईल फोन – संपत्ति या विपत्ति **(2)** समाचार पत्रों का सहारा लेकर किन्हीं चार विषयों पर व्याकरण पुस्तिका में विज्ञापन तैयार कीजिए। **(3)** क्षितिज और कृतिका के पठित पाठों का अभ्यास करें। **(4)** किसी भी विषय पर 250–300 शब्दों में **A4 size sheet** पर स्वरचित कहानी लिखो।

SANSKRIT : (1) द्वन्द्व , द्विगु , समास के कोई 15 उदाहरण वाक्यों में प्रयुक्त कर लिखो। (2) त्व , टाप् , ङीप् , तव्यत , अनीयर प्रत्ययों के प्रत्येक 8–8 उदाहरण वाक्यों में प्रयुक्त कर लिखें। (3) निम्नलिखित दृश्यों पर संस्कृत में 5 वाक्य बनाओ – (क) वर्षायाः दृश्यम् (ख) प्राकृतिक दृश्यम् (ग) मैट्रोरेलयानस्य दृश्यम्
(घ) झझावातस्य (तूफान) दृश्यम् **नोट – उपरोक्त सभी कार्य व्याकरण उत्तर पुस्तिका में लिखना है।**

MATHS : Do the given questions from the book (P.K. Garg) : (1) Ch. 1 (Pg. 1 Ques. 3 , Pg. 2 Ques.12 , 35 , 36 , Pg. no. 3 Ques. 51) **(2)** Ch. 2 (Pg no. 8 Ques. 10 , 13 , Pg. no. 9, Ques. 32 , 39 , Pg. no. 10 Ques. 65) **(3)** Ch. 3 (Pg. no. 28 Ques. 2 , 9 , 16 , Pg. no.29 Ques. 23 , 29 , 31 , 24 , 37 , Pg. no. 30 Q. 38 , 40 , 41 , 48 , 49 , Pg. no. 31 Q. 54 , 57)

SCIENCE: Prepare Power point Presentation OR a Chart : (Any one)

(A) Topics for Power point Presentation according to serial no. :

(1) Balancing of chemical equation (S.No. 1 , 2) **(2)** Combination Reaction (S.No. 3 , 4) **(3)** Decomposition Reaction (S.No. 5 , 6) **(4)** Displacement Reaction (S.No. 7 , 8) **(5)** Double displacement Reaction (S.No. 9 , 10) **(6)** Redox Reaction (S.No. 11 , 12) **(7)** Nutrition in Plants (S.No. 13 , 14) **(8)** Nutrition in Human Being (S.No. 15 , 16) **(9)** Nutrition in Amoeba (S.No. 17 , 18) **(10)** Types of Nutrition (S.No. 19 , 20) **(11)** Respiration in Animals (S.No. 21 , 22) **(12)** Transportation in Human Circulatory System (S.No. 23 , 24) **(13)** Transportation in Plants (S.No. 25 , 26) **(14)** Excretion in Animals (S.No. 27 , 28) **(15)** Plane Mirror (S.No. 29 , 30) **(16)** Spherical Mirror (S.No. 31 , 32) **(17)** Concave mirror – rules to make ray diagrams & uses (S.No. 33 , 34) **(18)** Concave mirror – ray diagrams (S.No. 35 , 36) **(19)** Convex mirror (S.No. 36 , 37) **(20)** Reflection of light : Introduction , its laws & uses (S.No. 38) **(21)** Refraction of light : Introduction , its laws & uses (S.No. 39) **(22)** Refractive index (S.No. 40) **(23)** Convex lens : rules to make ray diagrams & uses (S.No. 41) **(24)** Concave lens : rules to make ray diagrams & uses (S.No. 42) **(25)** Convex lens – Ray diagrams (S.No. 43) **(26)** Glass

Slab Activity (S.No. 44) **(27)** Glass Prism Activity (S.no. 45) **(B) Prepare Chart topics** according to the serial no. : **(1)** Electrolysis of water (S.No. 1 , 2) **(2)** Cross section of leaf (S.No. 3 , 4) **(3)** Open and closed stomatal pores (S.No. 5 , 6) **(4)** Nutrition in Amoeba (S.No. 7 , 8) **(5)** Human Digestive System (S.No. 9 , 10) **(6)** Break down of glucose by various path ways (S.No. 11 , 12) **(7)** Human Respiratory System (S.No. 13 , 14) **(8)** Structure of human heart (S.No. 15 , 16) **(9)** Schematic representation of transport and exchange of oxygen and carbon-dioxide (S.No. 17 , 18) **(10)** Human excretory system (S.No. 19 , 20) **(11)** Structure of neuron (S.No. 21 , 22) **(12)** Structure of neuron and neuro-muscular junction (S.No. 23 , 24) **(13)** Reflex arc (S.No. 25 , 26) **(14)** Human brain (S.No. 27 , 28) **(15)** Endocrine glands in human beings **(i)** male **(ii)** female (S.No. 29 , 30) **(16)** Longitudinal section of flower (S.No. 31 , 32) **(17)** Germination of pollen grains on stigma (S.No. 33 , 34) **(18)** Human female reproductive system (S.No. 35 & 36) **(19)** Structure of human eye (S.No. 37 , 38) **(20)** Ray diagrams formed by concave mirror (S.No. 39 , 40 , 41) **(21)** Ray diagrams formed by convex lens (S.No. 42 , 43 , 44) **(22)** Ray diagrams formed by convex mirror and concave mirror (45) **(C)** Learn Symbols , Atomic No. , Electronic Configuration from Hydrogen to Calcium. **(D)** Learn Valency (monovalent , divalent , trivalent & polyatomic) **(E)** Complete given Assignment 1 , 2 & 3. **(F)** Learn L-1 , 6 , 10

ASSIGNMENT NO. 3 CHAPTER – LIGHT

(Do the given assignment in Science Assignment Register)

1. List four properties of the image formed by a convex mirror.

2. State the type of mirror preferred as (i) rear view mirror in vehicles (ii) shaving mirror. Justify your answer giving two reasons in each case.

3. List the sign conventions for reflection of light by spherical mirrors. Draw a diagram and apply these conventions in the determination of image distance.

4. (a) Define Centre of Curvature.
(b) Show the position of centre of curvature of concave and convex mirror on a diagram. Draw normal at a point on the surface of any one. What will be the angle of incidence of a ray of light passing through centre of curvature of a concave mirror?

5. What is meant by power of lens? Give its S.I. unit. When two or more lenses are placed in contact, what will be their combined power?

6. Letter written on a paper when seen through glass slab appear to be raised. Explain this phenomenon with the help of a ray diagram.

7. (a) Write relation between u, v , f for lens and for mirrors.
(b) The magnification produced by a concave mirror is m=+4. Write the information about the image given by this statement.

8. In glass slab experiment, a student observes that angle of incidence is increased. What will be the inference regarding the angle of refraction.

9. Which of the two lens have more focal length one having thickness 1cm and other 1.5cm thickness where both have some aperture.

10. In an experiment to find focal length of concave mirror, draw a graph showing relation b/w u & v.

11. A concave mirror has a radius of curvature of 0.4m. Find the position and size of the image of an object 0.2m high placed 0.8m in front of the mirror.

12. An object 50cm tall is placed on the Principal axis of a concave lens. Its 20cm tall image is formed on the screen placed at a distance of 10cm from the lens. Calculate the focal length of the lens.

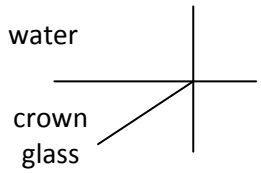
13. An object of height 4.0cm is placed at a distance of 30cm from the optical centre 'O' of a convex lens of focal length 20cm. Draw a ray diagram to find the position and size of the image formed. Mark optical centre 'O' and principal focus 'F' on the diagram. Also find the approximate ratio of size of image to the size of object.

14. (a) State the laws of Refraction.

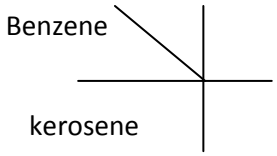
(b) Define absolute and relative refractive index.

(c) Refractive index of water , crown glass, kerosene and benzene are 1.33, 1.52, 1.44, 1.50 respectively. Complete the following diagram :

(a)



(b)



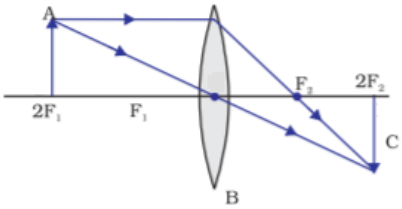
15. Three students **A, B & C** separately measured focal length of same convex lens. **'A'** measured focal length to be 'F_1' as soon as he obtained a blurred image on the screen while he was gradually taking it away from the lens. **'B'** further displaced screen away from lens and obtained sharp image. He measured focal length to be 'F_2' **'C'**further displaced screen away from the lens and obtained blurred image. He measured focal length to be 'F_3'. Write relation b/w F_1, F_2, F_3 and give reason.

16. A ray of light falls normally on a face of glass slab. What are the values of angle of incidence and angle of refraction? Draw diagram also.

17. (a) Two lenses have power (i) +2D (ii) – 4D, what is the type, nature of image formed and focal length of each lens.

(b) Also, write nature of lens.

18.



Observe the above ray diagram and answer the following :

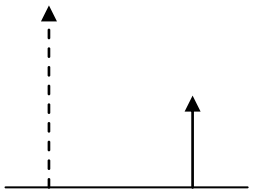
(a) What are (A), (B) and (C)

(b) What is the similarity in (A) and (C)

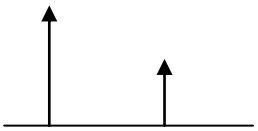
19. Complete the following and use suitable lens and mirror :

(i)

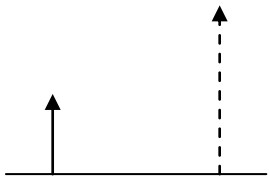
(ii)



(iii)



(iv)



20.

u(incm)	60	40	30	24	12
v(incm)	20	24	30	40	70

A student focused the image of a candle flame on a white screen by placing the flame at various distances from a convex lens.

Analyse the above table and answer the following:

(a) What is the focal length of the convex lens?

(b) Which set of observations is incorrect and why?

(c) Draw a ray diagram to show the image formation for any correct set of observations.

21. **(a)** What is the cause of refraction of light?

(b) State Snell's law.

(c) Light enters from air to glass having refraction index 1.50. What is the speed of light in glass?

22. You have two lenses A & B of focal lengths +10cm and – 10 cm respectively. Which of the two lenses will from virtual and magnified image of an object placed 8cm from the lens? Draw a ray diagram to justify your answer.

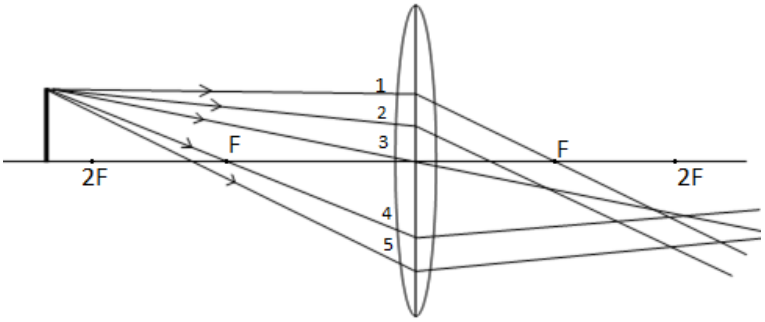
23. The absolute refractive indices of medium A & B are 3/2 & 4/3 respectively. If the speed of light in medium A is 2×10^8m/s. calculate the speed of light in (a) Vacuum (b) medium B.

24. A student using a concave mirror of focal length 20cm wants to focus on a screen the image of a candle flame held on its principal axis at a distance of 30 cm from its pole. If the flame is shifted towards the mirror, so that its distance from the pole of the mirror becomes 10cm. what would be observed on the screen? Draw a ray diagram for the formation of image in this situation, to justify your answer.

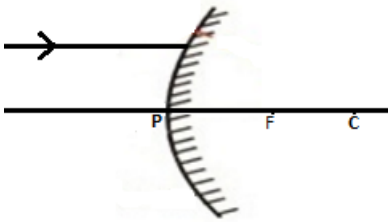
25. Define the following terms in the context of spherical mirrors :
(a) Pole (b) Centre of Curvature (c) Principal axis (d) Principal focus

26. (a) Draw a ray diagram to show the formation of image by a concave lens when an object is placed in front of it.
(b) In the above diagram mark the object distance (u) and image distance (v) with their proper signs (+ve or – ve as per the new Cartesian sign convention) and state how these distances are related to focal length (f) of the concave lens in this case.

27. Select two incident rays from the following diagram, which are shown refracted, as per the laws of refraction of light. Use these two rays to show the formation of image of an object placed on the principal axis of a convex lens between its F & 2F.



28. 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.



29. A student obtained a sharp image of a candle flame using concave mirror to find its focal length. The teacher suggested him to focus a distant bulding about 1km far from the laboratory for getting more correct value of the focal length. What changes a student should make in his set up to obtain clear image of distant building. Give appropriate reason also.

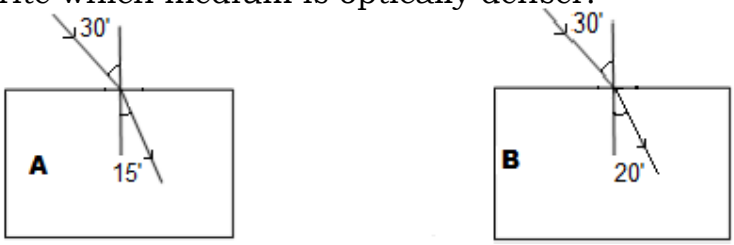
30. A student focuses the image of a well illuminated distant object on a screen using a convex lens. After that he gradually moves the object towards the lens and each time focuses its image on the screen by adjusting the lens.
(a) In which direction towards the screen or away from the screen, does he moves the lens?
(b) What happens to the size of the image does it decrease or increase.
(c) What happens to the image on the screen when he moves the object very close to the lens?

31. One half of a convex lens is covered with a black paper.
(a) Show the formation of image of an object placed at $2F_1$ of such covered lens with the help of ray diagram. Mention the position and nature of image.

(b) Draw the ray diagram for same object at same position in front of the same lens but now uncovered. Will there be any difference in the image obtained in the two cases? Give reason for your answer.

32. You are given glass, kerosene oil and diamond of refractive index 1.5, 1.44 and 2.42 respectively. Arrange these in ascending order of speed of light in medium. Also, write which medium is optically denser.

33.



(a) Which medium is optically denser A or B?
(b) In which medium more refraction of light takes place?
(c) Where do light rays bend towards or away from normal when light rays move from medium A to medium B.

SOCIAL SCIENCE : (1) Carry out a survey by enquiring 10 persons from different walks of life (such as Shopkeepers , Senior Citizens , Students , Housewives etc.) in your locality on the 'hazards' prevalent and preventive measures they have taken or would like to reduce the impact. Questionnaire for survey : **(a)** Are you aware about the types of Disaster that have affected your locality ? (Yes / No) **(b)** If yes Name them. **(c)** Do you know the Precautionary measures for each of them ? **(d)** Are you aware about the local Disaster Management Committee? (Yes / No) **(e)** If Yes , do you know about their programmes? (Yes / No) **(f)** Do the constructions in your locality follow safety measures? (Yes / No) **(g)** Have you or your family members ever undergone any Disaster Management Programmes / workshop ? (Yes / No) **(h)** If yes , have you procured any emergency kits to withstand such calamities? (Yes / No) **(i)** Do you follow any safety measures to reduce the risk of Disaster? (Yes / No) Write any four safety measures for fire disaster? **(j)** Prepare a survey report highlighting the areas where awareness is required and the local resources available in the locality to create awareness? **(2)** Make a project on any one of the following topics on the file issued from school : **(a)** Loan activities of Banks **(b)** Self Help Groups **(c)** Role of RBI in banking System. (Content matter should have at least 10 pages) **(3)** Do the following map works on a map book having at least 50 political maps of India : **(a)** Major soil types of India **(b)** Major Dams along with rivers **(c)** Major Food crops and Cash crops **(d)** Iron ore mines , mica mines, coal mines , Bauxite mines , oil fields & mica deposits. **(4)** Revise the chapter done in class.

DRAWING : (1) Draw and colour Sunset Scene (Pg. no. 31) in your drawing file.
(2) Draw and colour Birds (Pg. no. 19) in your drawing file.

ACTIVITY : Make a creative carry bag by using handmade sheet.

WORK EDUCATION : Write about the given topics in about 200 words in Work Education Folder : **(1)** Preparation of family budget and maintenance of daily household accounts. **(2)** To be able to know and procure transport facilities from one point to another using online resources or cooperation with local authorities such as Panchayat.

MUSIC : Prepare a chart on the topic acc. to the given serial no. : Saraswati Vandana (S.No. 1-8) , National Song (S.No. 9-16) , Biography of Classical Singer (S.No. 17-24) , Chart on Classical Dancers (S.No. 25-32) , Chart on Folk Dancers (S.No. 33-40) , Musical Instruments (S.No. 41-last).

PHY. EDU. – Project : Make a project on : 'Empathy'

Target Point - The concern of fate of others , the ability to realize another persons insecurities and fears and ability to put one self in their shoes and willingness to extend a supportive hand makes for empathy. **OR**

Make a project on : 'Care for Homeless Children'

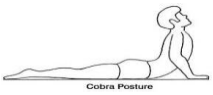
Target Point - Groups as community volunteers participate in a programme to give happiness to children living in shelters. It also increase awareness about the issue of homelessness.

Activity :

1. Do 10 minutes jogging daily for warm up your body and after than do 10 minute exercise for keep your body healthy.

2. Yoga : Practice the following Yogasanas :

Bhujangasana



Benefits : **(a)** It cures the diseases of liver.

(b) It cures the disorder of urinary bladder.

Paschimottamasana

Benefits : **(a)** It alleviates gas trouble.

(b) It is a good remedy of constipation.

Pawanmuktasana

Benefits : **(a)** It eases the tension in lower back.

(b) It helps in reducing the fats of thighs , buttocks , abdominal area.

Ardhmatseyendrasana

Benefits : **(a)** It keeps Gall Bladder area and the prostate gland healthy.

(b) It alleviates digestive elements.

"Prevention is better than cure"

F.I.T. : 1. Write the Full Forms of these :-> URL, HTTP, FTP, WWW, SMTP, IMAP, POP, TCP/IP, DNS, HTTPS, HTML, ISP, MODEM, IETF, IRTF, IAB, WI-FI, WI-MAX, DBMS & RDBMS. **2. Define these terms** :-> Gateway, ISP, Modem, Web Server, Web Browser, Web Page, Website, Home Page, Search Engine, Database, DBMS, Fields, Records, Table, Blog & E-mail. **3. Explain any 2 Web Services with two Advantages**.

4. Create a table using blank database and named as " Bank Account" along with the following details:

- **a)** The table should have the fields, customer ID, Account number, account Type, Date opened, balance.
- **b)** Define a Primary key for the account table.
- **c)** Set the Default value 1000 for the field balance.
- **d)** Set the field size to 15 for the Account Type Field.
- **e)** Enter 10 records in each field.
- **f)** Save the file and take the printout.

5. Create a table in a database. Save the database with the name "Teacher's Detail". Do the following tasks.

- **a)** The table should have the fields, Reg_No(Primary key), Name, Subject, School, Address, Mobile_No, Age.
- **b)** Populate the table with appropriate data.
- **c)** Set the validation rule for age>25.
- **d)** Set the required field property to YES for Mobile_no.
- **e)** Sort the table in ascending order.
- **f)** Save the file and take the printout.