# Light

#### **ORAL QUESTIONS**

### A. Answer these questions orally.

- 1. What is light?
- 2. How does light travel?
- 3. What is the speed of light in vacuum?
- 4. Name two luminous objects.
- 5. What is an image which cannot be obtained on a screen called?
- 6. What is the phenomena of splitting of white light into its seven constituents called?

## **PUZZLES/QUIZ**

B. Find nine terms related to chapter Light hidden in the word-maze given below.

| D | L | В | M | С | S | I | A | W | В | L | С |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Р | Ι | N | Р | О | Р | Ο | L | Е | L | R | О |
| L | G | S | Е | N | Е | L | M | Т | Y | С | N |
| A | Н | N | Р | V | С | Е | Y | В | G | T | С |
| N | Т | R | С | Е | T | D | R | N | R | Е | A |
| Е | G | L | R | Χ | R | В | Р | R | F | Χ | V |
| М | N | Y | Н | L | U | S | R | J | N | Н | Е |
| I | Е | С | В | Е | M | M | I | F | Е | Х | L |
| R | D | Е | D | N | L | M | S | Ο | С | Α | Е |
| R | Y | Р | Е | S | Т | Т | M | С | N | Y | N |
| 0 | L | A | M | J | F | R | Е | U | О | В | S |
| R | M | В | R | Е | V | R | N | S | R | I | M |

C. Unscramble the jumbled words to make meaningful words. Use the clues given in brackets.

1. E N P O S I I S D R

(Splitting of white light into its seven constituent colours).

R M P Ε U 2. (A band of seven colours obtained on a screen due to dispersion) A R E 3. (An image which can be formed on a screen) Ε O C C N (A mirror whose inner surface behaves as the reflecting surface) C U Ο F 5. (The mid point of the pole and the centre of curvature) **CLASS TEST** D. Very short answer questions. 1. What do you understand by reflection of light? 2. How is an image formed? 3. What is a beam of light? 4. What do the following represent?

6. What is a curved mirror?

| $\overline{}$ | X X 71  | •    |         | •        | •      |
|---------------|---------|------|---------|----------|--------|
| '/            | 1/1/hat | 10 0 | concave | mirro    | ن مه ، |
| / .           | vviiai  | 15 7 | COHCAVE | 11111110 |        |

| $\circ$ | T T 7 | 71 . | •  |   |        | •     | _   |
|---------|-------|------|----|---|--------|-------|-----|
| 8.      | VV    | hat  | 1S | a | convex | mirro | 1.7 |

### E. Short answer questions.

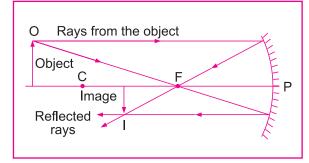
- 1. Differentiate between.
  - (a) Real image and Virtual image

| VIRTUAL IMAGE |
|---------------|
|               |
|               |
|               |
|               |
|               |

(b) Dispersion and Spectrum

| SPECTRUM |
|----------|
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|          |
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|          |
|          |

- 2. Study the following diagram and answer the following questions.
  - (a) What is the position of the object?
  - (b) What is the position of the image?
  - (c) What is the nature of the image formed?



|    | (d) vv hat is the size of the image formed larger or smaller than the object? |
|----|---|
| 3. | What is the nature, size and position of the image formed by a convex mirror? |
| 4. | Where do we mark the focus and centre of curvature for a convex mirror?       |
|    |   |
| 5. | List the uses of convex mirrors.  |
| 6. | When is a person advised to use convex lenses in his spectacles?              |
| 7. | When is a person advised to use concave lenses in his spectacles?             |
|    |   |
| 8. | What is lateral inversion?  |
|    | Long answer questions.  What are the various uses of plane mirrors?           |
|    |   |
| 2. | List the various uses of concave mirrors.                                     |
|    |   |

| 3. | What are the characteristics of an image formed by a plane mirror?  |  |  |  |  |  |  |
|----|---|--|--|--|--|--|--|
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| 4. | List the uses of concave and convex lenses.   |  |  |  |  |  |  |
|    |   |  |  |  |  |  |  |
| 5. | Draw the ray diagram for a concave mirror when an the object is placed between F and P.                     |  |  |  |  |  |  |
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|    | HOME ASSIGNMENT   |  |  |  |  |  |  |
|    | Think and Answer.   |  |  |  |  |  |  |
| 1. | Jessica saw an ambulance van having the word EANCE ANBULANCE written as? Why do you think it is written so? |  |  |  |  |  |  |
| 2. | Shubhankar's grandfather uses bifocal spectacles. What could be the reason?                                 |  |  |  |  |  |  |
|    |   |  |  |  |  |  |  |

| 3. | Shreya placed a lemon in a circular container of water. It appears to be larger than its normal size. Why? |
|----|--|
| 4. | Ravi stood in front of a magical mirror. He found that his face was enlarged and the legs                  |
|    | appeared very small. What could be the reason?   |
|    | WORKSHEET  |
| H. | Give reasons for the following.  |
| 1. | A convex lens is also called a converging lens.  |
|    |  |
|    |  |
| 2. | One should never experiment to focus or concentrate sunlight on a human body.                              |
|    |  |
|    |  |
| 3. | When a Newton's Disc is rotated very fast, white colour is seen.   |
|    |  |
|    |  |
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