PHYSICS

BOOKS - KUMAR PRAKASHAN

MODEL QUESTION PAPER 01

Section A State Whether The Following Statements Are True Or False

1. Lens of power +2.0 D is a convex lens.

▶ Watch Video Solution

1. If according to Indian almanac real sunrise of a day is 6:32 hour, then at the horizon Sun will appear at ....

    A. $6 : 32$

    B. $6 : 34$

    C. $6 : 30$

D. $6 : 36$

Answer:

⏵ **Watch Video Solution**

1. In an electric circuit, how can the battery having 12 V be shown symbolically ?

⏵ **Watch Video Solution**

1. Draw the ray diagrams showing incident ray and reflected ray for (1) a ray parallel to the principal axis and (2) a ray passing through the principal focus of a concave mirror.

▶ **Watch Video Solution**

2. State the advantages / merits of a series combination of resistors.

3. State two practical applications of heating effect of electric current.

4. Explain : An electric fuse is an important component of all domestic circuits.

1. Draw the ray diagram for the image formation by a convex lens, when an object is placed between principal focus F_1 and optical centre O. State the position, nature and size of the image.

▶ Watch Video Solution

2. A concave lens has focal length of 15 cm. At what distance should the object from the lens

be placed so that it forms an image at 10 cm from the lens ? Also find the magnification produced by the lens.

3. Derive the formula of equivalent resistance of series combination of resistors.

4. Answer the questions :

On which principle does the solar cooker work

?

 Watch Video Solution

1. The surface of .... metal acquires a green coating, when it is exposed to air, but on heating the metal, it acquires a black coating.

Section A State Whether The Following Statements Are True Or False

1. Lens of power +2.0 D is a convex lens.

2. Lens of power +2.0D is a convex lens

1. Which scientist proposed the 'Law of Triad' for the classification of elements ?

    A. Doberiner

    B. Newland

    C. Moseley

    D. Mendeleev

Answer:

▶ **Watch Video Solution**

2. If according to Indian almanac real sunrise of a day is 6:32 hour, then at the horizon Sun will appear at ....

    A. $6:32$

    B. $6:34$

    C. $6:30$

    D. $6:36$

Answer:

3. If according to Indian almanac real sunrise of a day is 6:32 hour, then at the horizon Sun will appear at ....

    A. $6:32$

    B. $6:34$

    C. $6:30$

    D. $6:36$

Answer:

Section A Answer The Following Question As Directed

1. In an electric circuit, how can the battery having 12 V be shown symbolically?

2. In an electric circuit, how can the battery having 12 V be shown symbolically?

Section B

1. Draw the ray diagrams showing incident ray and reflected ray for (1) a ray parallel to the principal axis and (2) a ray passing through the principal focus of a concave mirror.

2. State the advantages / merits of a series combination of resistors.

> ▶ **Watch Video Solution**

3. State two practical applications of heating effect of electric current.

> ▶ **Watch Video Solution**

4. Explain : An electric fuse is an important component of all domestic circuits.

5. Draw the ray diagrams showing incident ray and reflected ray for (1) a ray parallel to the principal axis and (2) a ray passing through the principal focus of a concave mirror.

6. State the advantages / merits of a parallel combination of resistors.

> ▶ **Watch Video Solution**

7. State two practical applications of heating effect of electric current.

> ▶ **Watch Video Solution**

8. Explain : An electric fuse is an important component of all domestic circuits.

Section C

1. Draw the ray diagram for the image formation by a convex lens, when an object is placed between principal focus Fi and optical

centre o State the position, nature and size of the image.

2. A concave lens has focal length of 15 cm. At what distance should the object from the lens be placed so that it forms an image at 10 cm from the lens ? Also find the magnification produced by the lens.

3. Derive the formula of equivalent resistance of series combination of resistors.

4. Draw the ray diagram for the image formation by a convex lens, when an object is placed between principal focus Fi and optical centre o State the position, nature and size of the image.

5. A concave lens has focal length of 15 cm. At what distance should the object from the lens be placed so that it forms an image at 10 cm from the lens ? Also find the magnification produced by the lens.

6. Derive the formula of equivalent resistance of series combination of resistors.

7. Answer the following questions :

(1) On which principle does the solar cooker work?

(2) State the two advantages of using the solar cooker.

(3) State the two limitations of using the solar cooker.

> ▶ **Watch Video Solution**

Section D

1. Draw a labelled diagram of an electric motor.

Explain its principle, working and uses.