



# ST. LAWRENCE HIGH SCHOOL



A JESUIT CHRISTIAN MINORITY INSTITUTION

- Subject- Physical science      Answers of Worksheet - 21      Class – 7
- Date -2.05.2020

## Chapter: Light

Answer the following questions (MCQ) :      (1×15):

1. On which theory nature of light depends upon:

- A Wave theory
- B Particle theory
- C Both A and B

Answer- C. both A and B

2 Why light is said to have a dual nature?

- A It exhibits the properties of wave and particles.
- B It exhibits the properties of reflection and diffraction.
- C It has both interference and polarisation effect.
- D None of the above

Answer-  B It exhibits the properties of reflection and diffraction.

3 When angle of incidence in denser medium is greater than critical angle, will total internal reflection take place or not?

- A It will
- B It won't take place
- C may take place
- D it is a property of total external angle

Answer-  A It will

4 Sun is a good example of

- A Luminous objects
- B Non-luminous objects
- C Transparent objects

Answer- **A** Luminous objects

**5** In vacuum, Light travels at a speed of

**A**  $3.0 \times 10^7 \text{ m s}^{-1}$

**B**  $30 \times 10^8 \text{ m s}^{-1}$

**C**  $3.0 \times 10^{-8} \text{ m s}^{-1}$

**D**  $3.0 \times 10^8 \text{ m s}^{-1}$

Answer- **D**  $3.0 \times 10^8 \text{ m s}^{-1}$

**6** Choose wrong, size of image formed in a plane mirror

**A** could be taller than the mirror

**B** the height of the image depends on the object distance

**C** the width of the image is the same as of the object

**D** the image height depends on the object height

Answer- **A** could be taller than the mirror

**7** Normal, incident ray and reflective ray lie at a same point in

**A** Reflection only

**B** Refraction only

**C** Reflection and refraction both

**D** None of them

Answer **C** Reflection and refraction both

**8** Ratio equal to constant (in refraction) is

**A**  $\sin r / \sin i$

**B**  $\sin r (\sin i)$

**C**  $\sin i / \sin r$

**D**  $\sin i^2 / \sin r$

Answer **C**  $\sin i / \sin r$

**9** Which object does not reflect more light?

**A** Polished Surface

**B** Shining Surface

**C** Unpolished

**D** Both A and B

Answer- **C** Unpolished

**10** Name a metal which is the best reflector of light?

**A** Gold

**B** Silver

**C** Iron

**D** Magnesium

Answer- **B** Silver

**11** An incident ray is:

**A** The point at which incident ray falls on the mirror

**B** The ray of light which is sent back by the mirror

**C** The ray of light which falls on the mirror surface

**D** The ray which makes right angle to the mirror surface

Answer- **C** The ray of light which falls on the mirror surface

**12** Which statement is correct about the laws of reflection: (i) The incident ray, normal ray and the reflected ray all lie in the same plane. (ii) The angle of reflection is always equal to the angle of incidence. (iii) The angle of incidence is equal to the angle formed by normal ray. (iv) The angle of reflection is equal to  $90^\circ$ . Options are:

**A** Both (i) and (ii)

**B** Both (ii) and (iii)

**C** Both (iii) and (iv)

**D** (i), (ii) and (iv) are correct

Answer- **A** Both (i) and (ii)

**13** When a parallel beam of incident light is reflected as a parallel beam in one direction, this reflection is known as:

**A** Regular reflection

**B** Diffuse reflection

**C** Interference

**D** Diffraction

Answer- **A** Regular reflection

**14** Total internal reflection occurs when

**A** light passes from a denser to a lighter medium

**B** light comes into air from vacuum

**C** light goes to vacuum from air

**D** light passes from denser to less dense medium

Answer- **D** light passes from denser to less dense medium

**15** If we observe a pebble in a pool, pebble would appear to be

**A** deeper in the water than it really is

**B** of same depth in the water as it has

**C** nearer to the surface than it really is

**D** invisible

Answer- **C** nearer to the surface than it really is

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