PART A: MULTIPLE CHOICE (10 MARKS)

Choose the best response in each case and place your answer in the appropriate space on your answer sheet.

1. Which of the following is not a property of light?
   (a) It travels slower than sound.
   (b) It travels slower in water than in air.
   (c) It travels in a straight line.
   (d) It can be bent by refraction.

2. By which of these methods is light energy transmitted?
   (a) radiation (b) inversion
   (c) conduction (d) emission

3. What is the order of the colours in the spectrum formed when white light passes through a triangular prism?
   (a) red, orange, green, blue, yellow, violet
   (b) red, orange, green, yellow, blue, violet
   (c) red, orange, yellow, green, blue, violet
   (d) red, yellow, orange, green, blue, violet

4. Which of the following components is deviated least when white light is passed through a triangular glass prism?
   (a) red (b) violet
   (c) blue (d) green

5. Which of these colours has the shortest wavelength?
   (a) red (b) violet
   (c) blue (d) green

6. Which of the following has more energy?
   (a) microwaves (b) infrared light
   (c) visible light (d) ultraviolet

7. Which of these objects is considered luminous?
   (a) a tree (b) a mirror
   (c) a window (d) a lit match

8. The glowing filament of an electric light bulb is an example of:
   (a) incandescence. (b) chemiluminescence.
   (c) bioluminescence. (d) fluorescence.

9. How would you classify a window that transmits scattered light, so that you only see a fuzzy outline of a person of the other side?
   (a) transparent (b) translucent
   (c) opaque (d) invisible

10. An incident light ray strikes a plane mirror at an angle of 60° (measured with respect to the normal). The angle between the incident and reflected light rays is:
    (a) 15° (b) 30°
    (c) 60° (d) 120°

PART B: MATCH (5 MARKS)

Match the definition from the 1st column to the best term in the 2nd column and place the matching letter in the appropriate space on your answer sheet.

1. Does not produce its own light but reflects it instead.
2. Absorbs UV light and releases it later as visible light.
3. Production of light from a reaction between two chemicals.
4. Electromagnetic waves that we can detect with our eyes.
5. Absorbs UV light and releases it as visible light.

A) bioluminescence
B) chemiluminescence
C) diffuse reflection
D) electromagnetic spectrum
E) fluorescence
F) luminous
G) non-luminous
H) phosphorescence
I) regular reflection
J) visible spectrum