

Electromagnetic Spectrum – 2019 June

1. 0625/21,22,23/M/J/19/No.23

An eclipse of the Sun happens when the Moon comes between the Earth and the Sun.

Which statement is correct?

- A Infra-red radiation from the Sun disappears before visible light and ultra-violet radiation.
- B Ultra-violet radiation from the Sun disappears before visible light and infra-red radiation.
- C Visible light from the Sun disappears before ultra-violet radiation and infra-red radiation.
- D Infra-red radiation, ultra-violet radiation and visible light from the Sun all disappear at the same moment.

2. 0625/12/F/M/19/No.24

Which statement about microwaves is correct?

- A Microwaves are longitudinal waves.
- B The frequencies of microwaves are greater than the frequencies of visible light.
- C The speed of microwaves in a vacuum is equal to the speed of visible light in a vacuum.
- D The wavelengths of microwaves are smaller than the wavelengths of infra-red.

3. 0625/22/F/M/19/No.25

What is the speed of X-rays in a vacuum and in air?

	in a vacuum	in air
A	$3.0 \times 10^6 \text{ m/s}$	$2.0 \times 10^6 \text{ m/s}$
B	$3.0 \times 10^6 \text{ m/s}$	$3.0 \times 10^6 \text{ m/s}$
C	$3.0 \times 10^8 \text{ m/s}$	$2.0 \times 10^8 \text{ m/s}$
D	$3.0 \times 10^8 \text{ m/s}$	$3.0 \times 10^8 \text{ m/s}$