

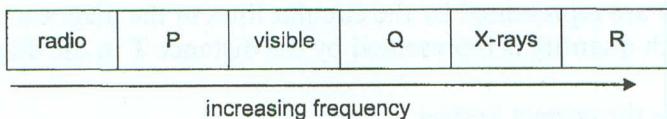
Topic 12 Electromagnetic Spectrum

PAPER 1

MULTIPLE-CHOICE QUESTIONS

For each question, there are four possible answers. Choose the one you consider correct and record your choice (A, B, C or D) in the brackets provided.

1. The diagram shows some components of the electromagnetic spectrum.



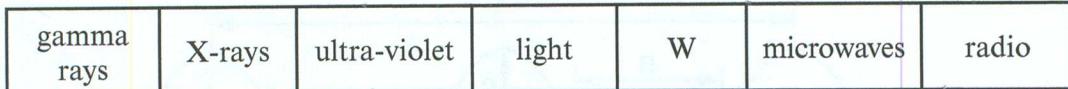
What are P, Q and R?

(2014/P1/Q14)

	P	Q	R
A	gamma rays	ultra-violet	infra-red
B	microwaves	infra-red	gamma rays
C	microwaves	ultra-violet	gamma rays
D	ultra-violet	infra-red	microwaves

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2. The diagram represents the electromagnetic spectrum.



Which row shows the properties of wave W?

(2016/P1/Q14)

	type of wave	comparison of speed in a vacuum
A	longitudinal	travels at the same speed as microwaves
B	longitudinal	travels faster than light
C	transverse	travels at the same speed as light
D	transverse	travels faster than microwaves

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3. Which row describes the properties of electromagnetic waves?

(2017/P1/Q15)

	type of wave	speed in a vacuum
A	longitudinal	constant
B	longitudinal	variable
C	transverse	constant
D	transverse	variable

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4. Visible light and gamma rays are both waves.

Which row is correct?

(2018/P1/Q14)

	visible light	gamma rays
A	longitudinal	longitudinal
B	longitudinal	transverse
C	transverse	longitudinal
D	transverse	transverse

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5. Which row describes properties of electromagnetic waves?

(2019/P1/Q14)

	transverse wave	travel through a vacuum	travel through air
A	no	yes	no
B	no	no	yes
C	yes	no	no
D	yes	yes	yes

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PAPER 2**STRUCTURED QUESTIONS****Section A***Answer the following questions.*

1. The list shows some of the components found in the electromagnetic spectrum.

infra-red light radio ultra-violet X-ray

Use only components from the list to answer the following questions.

(a) Name the component used in a remote control to change the channels on a television. [1]

(b) Name the component with the shortest wavelength. [1]

(c) Name the component that is found in sunlight and is mainly responsible for causing sunburn. [1]

(2018/P2/A1)

Section B*Answer the following questions.*

1. Some of the energy from the Sun is in the form of visible light.

Visible light is part of the electromagnetic spectrum.

Name two other components of this spectrum. [1]

(2015/P2/B7aii)