

Electromagnetic spectrum – 2022 Nov O Level 5054

1. Nov/2022/Paper_12/No.26

Many devices produce electromagnetic waves when operating.

Which device produces electromagnetic waves of the highest frequency?

- A mobile phone
- B sunbed
- C television controller
- D toaster

2. Nov/2022/Paper_21/No.4

X-rays are transverse waves that are part of a spectrum of waves.

(a) State the name of the spectrum of waves that includes X-rays.

..... [1]

(b) (i) Explain what is meant by 'frequency'.

.....
.....
..... [2]

(ii) State the name of the waves in this spectrum that have the greatest frequency.

..... [1]

(c) X-rays are used in hospitals to produce an image of broken bones.

(i) Explain how this is done. You may draw a diagram if you wish.

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..... [3]

(ii) Explain why X-rays are **not** used for pre-natal scanning.

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..... [1]

[Total: 8]