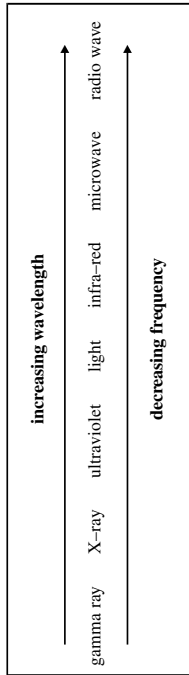


Radiation & Life - Homework 3

1. The diagram shows the waves that make up the electromagnetic spectrum.



- (a) In going from light to radio waves, describe how:
- (i) the wavelength changes;..... (2)
- (ii) the frequency changes. (2)
- (b) Which TWO waves in the spectrum are most harmful to humans?
- 1..... (2)
- 2..... (2)
- (c) Choose ONE of the waves shown in the diagram. Name ONE use for the wave that you choose and describe how it is used.

Wave.....

Use.....

Description of use.....

.....

.....

(3)
(Total 7 marks)

2. The diagram shows the electromagnetic spectrum.

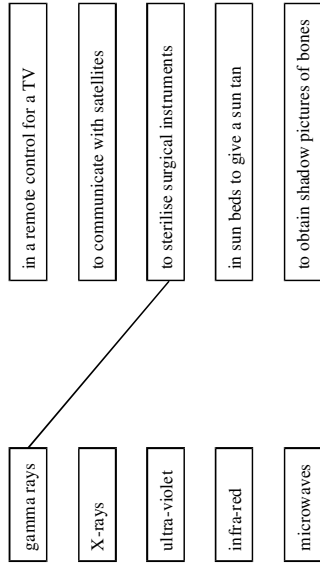


- (a) Write the name of the missing radiation on the diagram. (1)

- (b) Name one use for this radiation.
-

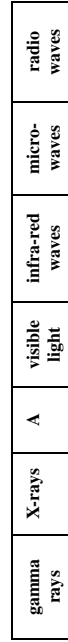
(1)
(Total 2 marks)

3. The boxes on the left show types of electromagnetic radiation. The boxes on the right show some uses of electromagnetic radiation. Draw one line from each type of radiation to its use. The first has been done for you.



(3)
(Total 3 marks)

4. Part of the electromagnetic spectrum is shown below.

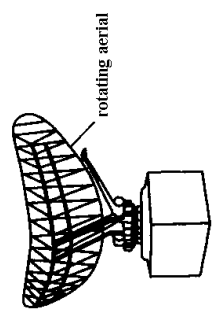


- (a) Name part A of the electromagnetic spectrum. (1)
- (b) Which part of the electromagnetic spectrum has the shortest wavelength? (1)
- (c) All electromagnetic waves travel at the same speed in a vacuum. If the frequency decreases, what happens to the wavelength? (1)

(d) Microwaves can be used to cook food.
Which other part of the electromagnetic spectrum can be used to cook food?
.....

(1)

(e) Radar uses pulses of microwaves to detect aeroplanes.



Explain how microwaves can be used to find the position of an aeroplane in the sky.

.....
.....
.....
.....
.....
.....
.....
.....
.....

(3)
(Total 7 marks)

Total = / 17

- 15-17 A
- 13-14 B
- 10-12 C
- 8-9 D
- 5-7 E

To improve I need to focus on

- 1.
- 2.