

- 25** A man standing next to a stationary train hears sound of frequency 400 Hz emitted from the train's horn. The train then moves directly away from the man and sounds its horn when it has a speed of 50 m s^{-1} . The speed of sound in the air is 340 m s^{-1} .

What is the difference in frequency of the sound heard by the man on the two occasions?

- A** 51 Hz **B** 69 Hz **C** 350 Hz **D** 470 Hz

- 26** Which list of regions of the electromagnetic spectrum is in order of increasing wavelength from left to right?

- A** gamma-ray → ultraviolet → infrared
B infrared → microwave → ultraviolet
C microwave → X-ray → infrared
D X-ray → ultraviolet → gamma-ray

- 27** The principle of superposition states that a certain quantity is added when two or more waves meet at a point.

What is this quantity?

- A** amplitude
B displacement
C intensity
D wavelength