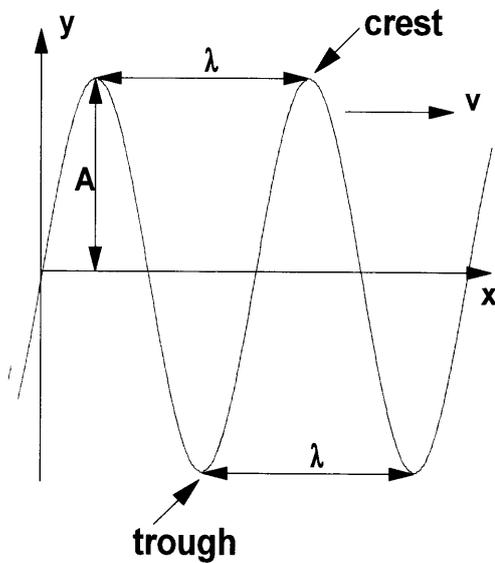


## YEAR 11 PHYSICS – QUICK QUIZ 1

(Answers appear on the last page)

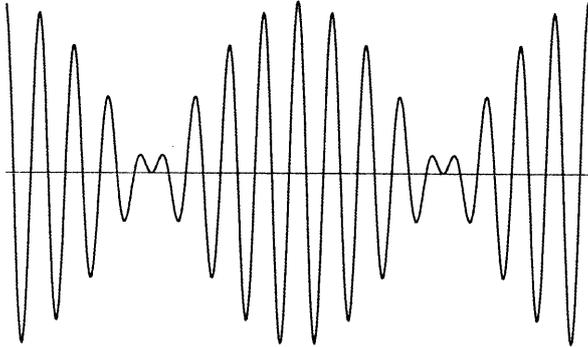
1. The Big Bang can best be described as:
  - A. the creation of matter from nothing
  - B. the creation of energy from nothing
  - C. the explosion of space at the beginning of time
  - D. the explosion of radiation and matter into space
  
2. In the following diagram:



the symbols  $\lambda$  and A stand for:

- A. Wavelength and half the amplitude
- B. Wavelength and amplitude
- C. Wavelength and intensity
- D. Frequency and amplitude

3. Study the diagram below showing a waveform.



Such a waveform is typical of :

- A. An echo
  - B. An electromagnetic wave
  - C. A beat
  - D. A diffraction pattern
4. An alpha particle moves into the space between two oppositely charged plates. Due to the electric field present, the alpha particle will experience a force:
- A. Towards the positive plate
  - B. Towards the negative plate
  - C. Sideways out of the field
  - D. In the opposite direction to its motion

5. The scientist who predicted the expansion of the universe from Einstein's Theory of General Relativity was:
- A. Ariella Stavros
  - B. Albert Einstein
  - C. Edwin Hubble
  - D. Alexander Friedmann
6. Of the following stars, the one that would have the highest luminosity would be:
- A. supergiant
  - B. red giant
  - C. brown dwarf
  - D. white dwarf
7. The energy source for a main sequence star is:
- A. Hydrogen fusion
  - B. Hydrogen fission
  - C. Helium fusion
  - D. Helium fission
8. Sunspots are:
- A. Areas of the sun of lower temperature and higher magnetic field
  - B. Areas of the sun of higher temperature and lower magnetic field
  - C. Areas of the sun of lower temperature and higher electric field
  - D. Areas of the sun of higher temperature and lower electric field

9. In a collision between two cars, air bags can reduce injuries. This is due to their ability to:
- A. Increase the time it takes for the change of momentum of the passengers to occur.
  - B. Decrease the time it takes for the change of momentum of the passengers to occur.
  - C. Increase the change of momentum experienced by the passengers.
  - D. Decrease the change of momentum experienced by the passengers.
10. In an electric circuit an ammeter should:
- A. Have a low resistance and be connected in series
  - B. Have a high resistance and be connected in series
  - C. Have a low resistance and be connected in parallel
  - D. Have a high resistance and be connected in parallel
11. If the velocity of an object changes, we can be certain that:
- A. A single force acted on the object
  - B. A net external force acted on the object
  - C. The momentum of the object has been conserved
  - D. The direction of the object must have changed
12. A 1 metre length of copper wire has a total resistance of  $0.01\Omega$ . The resistance of a 2 metre length of copper wire of equal cross-sectional area at the same temperature would most likely be:
- A.  $0.005\Omega$
  - B.  $0.01\Omega$
  - C.  $0.02\Omega$
  - D.  $2\Omega$

ANSWERS:

1. C

2. B

3. C

4. B

5. D

6. A

7. A

8. A

9. A

10. A

11. B

12. C