

Question number	Answer	Notes	Marks
5	<p>at least one from: in relation to driver:</p> <p>MP1. (frequency) does not change;</p> <p>MP2. no (relative) movement between driver and horn;</p> <p>PLUS up to five from: in relation to person at the side of the road:</p> <p>MP3. recognition that the Doppler effect applies;</p> <p>MP4. frequency heard by person at side of the road is different to that heard by driver;</p> <p>MP5. frequency is higher as car approaches;</p> <p>MP6. because wavefronts become closer together;</p> <p>MP7. frequency is lower as car moves away;</p> <p>MP8. because wavefronts become further apart;</p> <p>MP9. speed of sound remains constant;</p> <p>MP10. relevant mention of $v = f \times \lambda$;</p>	<p>allow pitch does not change i.e. driver and car travelling at same speed / distance between car (horn) and driver constant</p> <p>allow pitch as alternative to frequency reject just 'different' allow pitch of sound is higher allow wavelength decreases allow pitch of sound is lower allow wavelength increases</p> <p>must link to a previous MP, not merely quoting the formula</p>	6

Total for Question 5 = 6 marks