

## MDCAT Physics Chapter 6 Waves Online Test

Sr	Questions	Answers Choice
1	The wavelength of light observed on the earth, form a moving star is found todecrease by 0.05%. Relative to the earth the star is	A. moving away with a velocity of 1.5 x 10 <sup>5</sup> m/s B. moving away with a velocity of 1.5 x 10 <sup>4</sup> m/s C. coming closer with a velocity of 1.5 x 10 <sup>5</sup> m/s D. <div>coming closer with a velocity of 1.5 x 10<sup>5</sup>m/s</div>
2	A sonometer wire 100 cm in length has a fundamental frequency of 330 Hz. Thevelocity of propagation of waves along the wire is	A. 115m/sec B. 115m/sec C. 660m/sec D. 990m/sec
3	In which of the following, Doppler's effect is not applicable?	A. To find speed of satellite B. To find objects under water C. To find speed of star D. To tune a musical instrument
4	If a transverse wave has a speed of 10 m/ sec and frequency of 10 cycle/ sec itswavelength is:	A. 1 m B. 10 <sup>-2</sup> cm C. 10 m D. 10 cm
5	An organ pipe open at both ends and another organ pipe, closed at one end willresonate with each other, if their lengths are in ration of	A. 1:1 B. 1:4 C. 2:1 D. 1:2
6	The fundamental frequency of a closed organ pope is 50 Hz. The frequency ofsecond over tone is	A. 100hz B. 150hz C. 60hz D. 250hz
7	The frequency of the fundamental mode of open at one organ pipe is 400 Hz. Ifone end of pipe is closed the fundamental frequency will be	A. 800 Hz B. 600 Hz C. 400 Hz D. 200 Hz
8	A 4 m long string fixed at its ends resonate in 4 segments. The wavelength of the waveis:	A. 4m B. 0.5m C. 2m D. 0.25 m
9	A closed organ pipe and an open organ pipe have their first overtones of identicalfrequency. Their respective lengths are in the ratio:	A. 1:2 B. 4:3 C. 2:3 D. 3:5
10	When passes from medium to another, deviate from its path is called	A. reflection B. <div>refraction</div> C. diffraction D. transmission
11	A longitudinal sinusoidal wave has wavelength of 1cm and a period of 2sec. Its wavevelocity is:	A. 50 cm/ sec B. 0.5 cm/ sec C. 5 m/ s D. 0.005 m/ sec
12	When an observer moves towards a stationary source with a speed equal to 1/5 timesof speed of sound, the percentage increase in the frequency of sound is:	A. 20% B. 40% C. 5% D. 10%
13	A listener observes the frequency "f" of stationary source. If it move toward with 3 times of velocity of sound. Then the apparent frequency of the sound will be	A. f B. 3f C. f/2 D. 4f
		A. 3:4

15	A stationary wave is established in a string which vibrates in four segments at afrequency of 120 Hz. Its fundamental frequency is:	A. 15Hz B. 60Hz C. 30Hz D. 430Hz
16	A sonar depth finder in a boat uses sound signals to determine the depth of water. Fourseconds after the sound leaves the boat it returns to the boat because of reflection fromthe bottom. Assume the speed of sound in water is 1,460 meters per second. The depth of the water is, in meters, :	A. 2,200 B. 4,800 C. 4,400 D. 2,920
17	With the propagation of longitudinal waves through a material medium, the quantitiestransferred in the direction of propagation are:	A. Energy, momentum and mass B. Energy and momentum C. Energy and mass D. Energy
18	A particular wavelength received from a galaxy is measured on earth and isfound to be 5% more than that its wave length on earth. Hence galaxy is	A. Moving towards earth B. Going away from earth C. Stationary with respect to earth D. None
19	It is a common characteristic of all types of wave motion that	A. Particles move up and down B. Particles move back and forth C. Energy is transferred without the transport of particles D. A material medium transmits the disturbance
20	Which one is the case when the wavelength is actually changed?	A. When source move relative to observer B. When observer move relative to source C. When observer moves around a stationary source at the center of circle D. When the relative displacement between source and observer is zero