MDCAT Physics Chapter 6 Waves Online Test

Sr	Questions	Answers Choice
1	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
2	A progressive sound wave is a means of transferring energy. A progressive sound waveof constant frequency is generated in air. The intensity of energy transfer is directlyproportional to another of the wave parameters. Which of the following is correct?	A. Intensity □ (□□□□□□□□□□)² B. Intensity □ (□□□□□□□□□□□□)² C. Intensity □ (□□□□□) ²</sup> D. Intensity □ (□□□□□□□□□□I)²
3	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
4	A church organ consist of open ended pipes ranging from 4m to 4 mm, if the speed ofsound is considered as 400 m/s then the min and max frequency is:	A. 400 Hz and 4 kHz B. 100 Hz and 100 kHz C. 50 Hz and 50kHz D. 400 Hz and 400 kHz
5	Bats navigate and find food by:	A. Ultrasonic B. Echolocation C. Refraction
6	In closed end organ pipe, the frequency of first harmonic is 300 Hz. The frequency ofthird overtone is :	A. 900 Hz B. 1500 Hz C. 2100 Hz D. 600 Hz
7	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
8	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
9	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
10	The fundamental frequency in a stretched string is 10 Hz. To double the frequency, the tension in it must be changed to:	A. T₂ = 2T₁ B. T₂ = 4T₁ C. T₂ = T₁ D. none of these
11	If source and observer are moving towards each other with same speed and aftercrossing they are receding each other then frequency observed by observer:	A. Decreases B. Remains constant C. Increases D. First Increases then decreases
12	A string vibrates in 1 loop has frequency 25 Hz if it moves in 2 loops its frequencywould be:	A. 25 Hz B. 50 Hz C. 12.5 Hz D. 5Hz
13	If a transverse wave has a speed of 10 m/ sec and frequency of 10 cycle/ sec itswavelength is:	A. 1 m B. 10⁻² cm C. 10 m D. 10 cm

14	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
15	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
16	When temperature increases, frequency of organ pipe:	A. Decreases B. Remains the same C. Increases D. Becomes zero
17	When passes from medium to another, deviate from its path is called	A. reflection B. refraction C. diffraction D. transmission
18	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
19	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%
20	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