MDCAT Physics Chapter 6 Waves Online Test

Sr	Questions	Answers Choice
1	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
2	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
3	The maximum wavelength of a transverse wave that can be set up in a string of length Lis	A. L B. 2L C. V D. 4L
4	When temperature increases, frequency of organ pipe:	A. Decreases B. Remains the same C. Increases D. Becomes zero
5	A closed organ pipe and an open organ pipe have their first overtone identical infrequency. Their lengths are in ratio	A. 3:4 B. 1:2 C. 2:3 D. 3:5
6	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
7	The frequency of an open pipe is f. if one end is closed then its fundamental frequencywill be:	A. f/2 B. 3f/4 C. f D. 2f
8	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
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	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
11	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 10⁵m/s B. moving away with a velocity of 1.5 x 10⁴m/s C. coming closer with a velocity of 1.5 x 10⁵m/s D. coming closer with a velocity of 1.5 x 10⁴m/s
12	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
13	If the tension in a string stretched between two fixed points is made four times, the frequency of the fundamental harmonic will become:	A. Two times B. Three times C. Four times D. Six times
14	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

15	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
16	Wavelength of the wave is the distance between the particles of the medium having adifference of:	A. Zero B. n C. 2n D. □2
17	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
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	When passes from medium to another, deviate from its path is called	A. reflection B. refraction C. diffraction D. transmission
20	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%