



Padalsalai's Telegram Groups!

(தலைப்பிற்கு கீழே உள்ள லிங்கை கிளிக் செய்து குழுவில் இணையவும்!)

- Padalsalai's NEWS - Group
https://t.me/joinchat/NIfCqVRBNj9hhV4wu6_NqA
- Padalsalai's Channel - Group
<https://t.me/padasalaichannel>
- Lesson Plan - Group
<https://t.me/joinchat/NIfCqVWwo5iL-21gpzrXLw>
- 12th Standard - Group
https://t.me/Padalsalai_12th
- 11th Standard - Group
https://t.me/Padalsalai_11th
- 10th Standard - Group
https://t.me/Padalsalai_10th
- 9th Standard - Group
https://t.me/Padalsalai_9th
- 6th to 8th Standard - Group
https://t.me/Padalsalai_6to8
- 1st to 5th Standard - Group
https://t.me/Padalsalai_1to5
- TET - Group
https://t.me/Padalsalai_TET
- PGTRB - Group
https://t.me/Padalsalai_PGTRB
- TNPSC - Group
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ILAHU ORIENTAL ARABIC HIGH SCHOOL - COMBUM10TH SCIENCE UNIT 5. ACOUSTICSMARKS: 25TIME: 1HRPART-ICHOOSE THE CORRECT ANSWER 5X1=5

- ① The frequency, which is audible to human ear is (a) 50 KHZ (b) 20 KHZ (c) 15000 KHZ (d) 10000 KHZ
- ② If a sound waves travels with a frequency of 1.25×10^4 HZ at 344 ms^{-1} , the wavelength will be (a) 27.52 m (b) 275.2 m (c) 0.02752 m (d) 2.752 m
- ③ What is the minimum distance needed for an echo? (a) 18.2 m (b) 17.2 m (c) 16.2 m (d) 1.72 m
- ④ Which one of the following is correct to be the velocity of sound? (a) $V_s < V_L < V_G$ (b) $V_G > V_L > V_s$ (c) $V_s > V_L > V_G$ (d) $V_G > V_L > V_s$
- ⑤ A source producing a sound of frequency 90 HZ is approaching a stationary listener with a speed equal to $(\frac{1}{10})$ of the speed of sound. What will be the frequency heard by the listener? (a) 90 HZ (b) 100 HZ (c) 80 HZ (d) 110 HZ

PART - II5x4 = 20ANSWER ANY FIVE QUESTIONS:(Q.NO:12 is compulsory)⑥ (a) Define : "Doppler effect"

(b) Mention two cases which there is no Doppler effect in sound?

(c) Write the Applications of Doppler effect.

⑦ Explain briefly: what are factors that affect the speed of sound in gases?

⑧ (i) what is an echo?

(ii) State two conditions necessary for hearing an echo.

(iii) what are the medical applications of echo?

⑨ (i) Match the following:

No: Name of the medium	Speed of Sound (in m s^{-1})
1 Copper	1533
2 Water	331
3 Sea water	5010
4 Air at 0°C	1493

(ii) Explain why, the ceiling of concert halls are curved.

- (10) (i) what is mean by reflection of sound?
(ii) Write the laws of reflection of sound.
(iii) Explain the reflection at the boundary of a rarer medium.
- (11) (i) Explain the reflection at the boundary of a denser medium.
(ii) Differentiate : Sound and light waves.
- (12) (i) At what temperature will be the velocity of sound in air be double the velocity of sound in air at 0°C ?
(ii) Two Observers are stationed in two boats 4.5 km apart. A sound signal sent by one, under water, reaches the other after 3 seconds. what is the speed of the sound in the water?

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