

## NAT I Computer Science Physics

| Sr | Questions                                                                                                              | Answers Choice                                                                                                                                                                                                                                       |
|----|------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | For production of beats the two sources must have                                                                      | A. Different frequencies and same amplitude<br><b>B. Different frequencies</b><br>C. Different frequencies same amplitude and same phase<br>D. Different frequencies and same phase.                                                                 |
| 2  | The temperature at which the speed of sound becomes double as was at 27°C is                                           | A. 273°C<br>B. 0°C<br><b>C. 927°C</b><br>D. 1027°C                                                                                                                                                                                                   |
| 3  | Two sources of sound are said to be coherent if                                                                        | A. They produce sounds of equal intensity<br>B. They produce sounds of equal frequency<br>C. They produce sound waves vibrating with the same phase<br><b>D. They produce sound waves with zero or constant phase difference all instant of time</b> |
| 4  | When sound waves travel from air to water which of these remains constant?                                             | A. Velocity<br><b>B. Frequency</b><br>C. Wavelength<br>D. All the above                                                                                                                                                                              |
| 5  | In a simple harmonic motion the kinetic energy (KE) and the potential energy (PE), are such that throughout the motion | A. KE remains constant<br>B. PE remains constant<br>C. KE/PE is constant<br><b>D. KE + PE remains constant</b>                                                                                                                                       |
| 6  | A pendulum clock set to give correct time in Karachi is taken to Quetta it would give correct time if                  | A. The mass of the pendulum is increased<br>B. The mass of the pendulum is decreased<br>C. The length of the pendulum os increased<br><b>D. The length of the pendulum is decreased</b>                                                              |
| 7  | In a simple harmonic motion (SHM) which of the following does not hold?                                                | A. The force on the particle is maximum at the ends<br>B. The acceleration is minimum at the mean position<br><b>C. The potential energy is maximum at the mean position</b><br>D. The kinetic energy is maximum at the mean position.               |
| 8  | To make the frequency double of na oscillator we have to                                                               | A. Double the mass<br>B. Half the mass<br>C. Quadruple the mass<br><b>D. Reduce the mass to one-fourth</b>                                                                                                                                           |
| 9  | When the displacement is half of the amplitude the ratio of potential energy to the total energy is                    | A. 1/2<br><b>B. 1/4</b><br>C. 1<br>D. 1/8                                                                                                                                                                                                            |
| 10 | The time period of a simple pendulum is 2 seconds if its length is increased by 4 times then its period becomes        | A. 16 s<br>B. 12 s<br>C. 8 s<br><b>D. 4 s</b>                                                                                                                                                                                                        |