M M A HIGHER SECONDARY SCHOOL-PAPPANADU
PLUS ONE PHYSICS VOLUME-2 (QUESTION BANK)

UNIT - 6: GRAVITATION

SHORT ANSWER QUESTIONS (BOOK BACK):

1. State Kepler's three laws. (Pg-2,3)
2. State Newton's Universal law of gravitation. (Pg-4)
3. Will the angular momentum of a planet be conserved?Justify your answer. (Pg-6)
4. Define the gravitational field. Give its unit. (Pg-10)
5. What is meant by superposition of gravitational field? (Pg-12)
6. Define gravitational potential energy. (Pg-14)
7. Is potential energy the property of a single object? Justify. (Pg-*)

   (* Potential energy is a property of a system rational than of a single object due to its physical position. Because gravitational potential energy depends on relative position. So, a reference level at which to set the potential energy equal to zero.)

8. Define gravitational potential. (Pg-16)
9. What is the difference between gravitational potential and gravitational potential energy?
 (Pg-14,16)
10. What is meant by escape speed in the case of the Earth? (Pg-22)
11. Why is the energy of a satellite (or any other planet) negative? (Pg-26)
12. What are geostationary and polar satellites? (Pg-26,27)
13. Define weight. (Pg-27)
14. Why is there no lunar eclipse and solar eclipse every month? (Pg-37)
15. How will you prove that Earth itself is spinning? (Pg-38)

ADDITIONAL QUESTIONS:(SHORT ANSWER):

1. What is Geocentric theory? (Pg-2)
2. What is Heliocentric theory? (Pg-2)
3. Derive the equation for gravitational constant.(Pg-9)
4. Differentiate Contact forces and Non-contact force.(Pg-10)
5. Water falls from the top of a hill to the ground. Why?(Pg-17)
6. Define acceleration due to gravity.(Pg-18)
7. Define Time period of a satellite. (Pg-24)
8. Write a note on weightlessness? (Pg-29)
9. The astronauts in space ships experience weightlessness. Why? (Pg-29)
10. What is called "retrograde motion" of planets. (Pg-31)
11. What is called epicycle.(Pg-31)
12. Why do we have seasons on Earth?(Pg-37)
13. Write a note on Recent developments of astronomy and gravitation.(Pg-39)

LONG ANSWER QUESTIONS (BOOK BACK):

1. Discuss the important features of the law of gravitation. (Pg-5,6)
2. Explain how Newton arrived at his law of gravitation from Kepler's third law or Newton's inverse square law? (Pg-6)
3. Explain how Newton verified his law of gravitation.(Pg-*)
4. Derive the expression for gravitational potential energy. (Pg-13)
5. Prove that at points near the surface of the Earth, the gravitational potential energy of the object is U=mgh.(Pg-15)
6. Explain in detail the idea of weightlessness using lift as an example.(Pg-29)
7. Derive an expression for escape speed.(Pg-22,23)
8. Explain the variation of g with latitude. (Pg-21)
9. Explain the variation of g with altitude. (Pg-19)
10. Explain the variation of g with depth from the Earth's surface. (Pg-20)
11. Derive the time period of satellite orbiting the Earth.(Pg-24)
12.Derive an expression for energy of satellite.(Pg-25)
13.Explain in detail the geostationary and polar satellites.(Pg-26,27)
14.Explain how geocentric theory is replaced by heliocentric theory using the idea of retrograde motion of planets.(Pg-30)
15.Explain in detail the Eratosthenes method of finding the radius of Earth.(Pg-34)
16.Describe the measurement of Earth's shadow (umbra) radius during total lunar eclipse. (Pg-35,36,37)

ADDITIONAL QUESTIONS:(LONG ANSWER):

1. Derive an expression for orbital velocity of satellite. (Pg-24)
2. Explain apparent weight in elevator.with examples.(Pg-28)

UNIT –7: PROPERTIES OF MATTER

SHORT ANSWER QUESTIONS (BOOK BACK):

1.Define stress and strain. (Pg-52,53)
2.State Hooke's law of elasticity.(Pg-54)
3.Define Poisson's ratio.(Pg-58)
4.Explain elasticity using intermolecular forces.(Pg-51)
5. Which one of these is more elastic, steel or rubber? Why.(Pg-60)
6. A spring balance shows wrong readings after using for a long time. Why?(Pg-*)
7. What is the effect of temperature on elasticity?(Pg-*)
8. Write down the expression for the elastic potential energy of a stretched wire.(Pg-59)
9. State Pascal's law in fluids.(Pg-60)
10. State Archimedes principle.(Pg-64)
11. What do you mean by upthrust or buoyancy?(Pg-64)
12. State the law of floatation.(Pg-64)
13. Define coefficient of viscosity of a liquid.(Pg-66)
14. Distinguish between streamlined flow and turbulent flow.(Pg-67)
15.What is Reynold's number? Give its significance.(Pg-68)
16.Define terminal velocity.(Pg-69)
17.Write down the expression for the Stoke's force and explain the symbols involved in it.(Pg-70)
18.State Bernoulli's theorem.(Pg-83)

19.What are the energies possessed by a liquid? Write down their equations.(Pg-82,83)

20.Two streamlines cannot cross each other. Why?(Pg-*)

21. Define surface tension of a liquid. Mention its S.I unit and dimension.(Pg-74,75)

22.How is surface tension related to surface energy?(Pg-75)

23.Define angle of contact for a given pair of solid and liquid.(Pg-76)

24.Distinguish between cohesive and adhesive forces.(Pg-72)

25.What are the factors affecting the surface tension of a liquid?(Pg-73,74)

26. What happens to the pressure inside a soap bubble when air is blown into it?(Pg-*)

(*Pressure is greater inside the small build.)

27. What do you mean by capillarity or capillary action?(Pg-79)

28. A drop of oil placed on the surface of water spreads out. But a drop of water place on oil contracts to a spherical shape. Why?(Pg-*)

29. State the principle and usage of Venturimeter.(Pg-85)

ADDITIONAL QUESTIONS:(SHORT ANSWER)

1. How to you differentiate solid,liquid and gas?(Pg-50)

2.Define elasticity.(Pg-51)

3. Define plasticity.(Pg-51)

4. Define longitudinal stress and explain its types.(Pg-52)

5. Define volume stress.(Pg-53)

6. Define longitudinal strain and explain its types.(Pg-53)

7. Define volume strain.(Pg-53)

8. Define elastic limit.(Pg-53)

9. Define compressibility.(Pg-56)

10. Write the applications of elasticity.(Pg-59)

11. Define density and Relative density or specific gravity.(Pg-60)

12. Write a note on hydrostatic paradox.(Pg-62)

13. Give example of floating bodies.(Pg-65)

14. Define viscosity.(Pg-65)

15. Define tube of flow.(Pg-67)

16. Define critical velocity.(Pg-67)

17. State law of similarity.(Pg-68)

18. larger raindrops fall with greater speed as compared to the smaller raindrops. Why?(Pg-70)

19. why gas bubbles rise up in soda water.(Pg-70)

20. Write the Practical applications of Stoke's law.(Pg-70)

21. Write the applications of viscosity.(Pg-71)

22. Give the examples for surface tension.(Pg-72)

23. Write the Practical applications of capillarity.(Pg-80)

24. Write the applications of surface tension.(Pg-81)

25. A spider web is much stronger than what we think. why?(Pg-86)

LONG ANSWER QUESTIONS (BOOK BACK):

1. State Hooke's law and verify it with the help of an experiment.(Pg-54)

2. Explain the different types of modulus of elasticity.(Pg-55,56,57)

3. Derive an expression for the elastic energy stored per unit volume of a wire.(Pg-59)

4. Derive an equation for the total pressure at a depth 'h' below the liquid surface.(Pg-61,63)

5. State and prove Pascal's law in fluids.(Pg-63)

6. State and prove Archimedes principle.(Pg-64)

7. Derive the expression for the terminal velocity of a sphere moving in a high viscous fluid using stokes force.(Pg-69)

8. Derive Poiseuille's formula for the volume of a liquid flowing per second through a pipe under streamlined flow.(Pg-7!)

9. Obtain an expression for the excess of pressure inside a i) liquid drop ii) liquid bubble iii) air bubble.(Pg-77,78)

10.What is capillarity? Obtain an expression for the surface tension of a liquid by capillary rise method.(Pg-79&80)

11.Obtain an equation of continuity for a flow of fluid on the basis of conservation of mass. (Pg-82)

12.State and prove Bernoulli's theorem for a flow of incompressible, non-viscous, and streamlined flow of fluid.(Pg-83,84)

13.Describe the construction and working of venturimeter and obtain an equation for the volume of liquid flowing per second through a wider entry of the tube.(Pg-85,86)

ADDITIONAL QUESTIONS:(LONG ANSWER):

1. Derive the equation for Stoke's law.(Pg-70)

2. Explain Pressure, kinetic and potential energy of liquids.(Pg-82,83)

3. Explain Applications of Bernoulli's Theorem.(Pg-84,85)

UNIT - 8: HEAT AND THERMODYNAMICS

SHORT ANSWER QUESTIONS (BOOK BACK):

1. An object contains more heat' - is it a right statement? If not why?(Pg-96)

2. Obtain an ideal gas law from Boyle's and Charles' law.(Pg-98)

3. Define one mole.(Pg-98)

4. Define specific heat capacity and give its unit.(Pg-100)

5. Define molar specific heat capacity. (Pg-101)

6. What is a thermal expansion?(Pg-102)

7. Give the expressions for linear, area and volume thermal expansions.(Pg-103)

8. Define latent heat capacity. Give its unit. (Pg-105)

9. State Stefan-Boltzmann law. (Pg-111)

10. What is Wien's law? (Pg-111)

11. Define thermal conductivity. Give its unit. (Pg-107)

12. What is black body(Pg-*)

13. What is a thermodynamic system? Give examples. (Pg-113)

14. What are the different types of thermodynamic systems?(Pg-113)

15. What is meant by 'thermal equilibrium'? (Pg-113)

16. What is mean by state variable? Give example.(Pg-114)

17. What are intensive and extensive variables? Give examples. (Pg-114)

18. What is an equation of state? Give an example. (Pg-114)

19. State Zeroth law of thermodynamics. (Pg-115)

20. Define the internal energy of the system. (Pg-116)

21. Are internal energy and heat energy the same? Explain. (Pg-117) Note

22. Define one calorie. (Pg-118)

23. Did joule converted mechanical energy to heat energy? Explain. (Pg-118)

24. State the first law of thermodynamics. (Pg-119)

25. Can we measure the temperature of the object by touching it? (Pg-116) Activity

26. Give the sign convention for Q and W(Pg-119)

27. Define the quasi-static process. (Pg-120)

28. Give the expression for work done by the gas.(Pg-121)

29. What is PV diagram? (Pg-122)

30. Explain why the specific heat capacity at constant pressure is greater than the specific heat capacity at constant volume(Pg-123)

31. Give the equation of state for an isothermal process.(Pg-125)

32. Give an expression for work done in an isothermal process.(Pg-126)

33. Express the change in internal energy in terms of molar specific heat capacity.(Pg-123,124)

34. Apply first law for (a) an isothermal (b) adiabatic (c) isobaric processes.(Pg-125/128/133)

35. Give the equation of state for an adiabatic process.(Pg-129)

36. Give an equation state for an isochoric process.(Pg-135)

37. If the piston of a container is pushed fast inward. Will the ideal gas equation be valid in the intermediate stage? If not, why?(Pg-120*)

38. Draw the PV diagram for   a. Isothermal process.(Pg-125)   b. Adiabatic process.(Pg-129)
                        c. Isobaric process.(Pg-132)   d. Isochoric process.(Pg-135)

39. What is a cyclic process? (Pg-138)

40. What is meant by a reversible and irreversible processes?(Pg-141)

41. State Clausius form of the second law of thermodynamics.(Pg-141)

42. State Kelvin-Planck statement of second law of thermodynamics.(Pg-144)

43. Define heat engine.(Pg-142)

44. What are processes involves in a Carnot engine?(Pg-146)

45. Can the given heat energy be completely converted to work in a cyclic process? If not, when can the heat can completely converted to work?(Pg-144) Note

46. State the second law of thermodynamics in terms of entropy.(Pg-150)

47. Why does heat flow from a hot object to a cold object?(Pg-150)

48. Define the coefficient of performance.(Pg-151)

ADDITIONAL QUESTIONS:(SHORT ANSWER)

1. Define Temperature.Give its SI unit. .(Pg-97)

2. Define heat capacity. .(Pg-100)

3. What is Triple point triple point of a substance . (Pg-105)

4. What is meant by Steady state. (Pg-108)

5. During the day, sun rays warm up the land more quickly than sea water. Why?(Pg-108)

6. State Prevost theory of heat exchange. (Pg-111)

7. Define emissivity of surface. (Pg-111)

8. Define Specific heat capacity at constant pressure.(Pg-123)

9. Define Specific heat capacity at constant volume.(Pg-123)

10. State Carnot theorem. (Pg-148)

11. Define Greenhouse effect.(Pg-152)

12. Define global warming.(Pg-152)

13. In hot summer, we use earthern pots to drink cold water. The pot reduces the temperature of water inside it. Does the earthern pot act as a refrigerator?(Pg-153)

LONG ANSWER QUESTIONS (BOOK BACK):

1. 1. Explain the meaning of heat and work with suitable examples.(Pg-95,96,97)

2. Discuss the ideal gas laws.(Pg-97,98)

3. Explain in detail the thermal expansion.(Pg-102,103,104)

4. Describe the anomalous expansion of water. How is it helpful in our lives?(Pg-104)

5. Explain Calorimetry and derive an expression for final temperature when two thermodynamic systems are mixed.(Pg-106)

6. Discuss various modes of heat transfer.(Pg-107,108,109)

7. Explain in detail Newton's law of cooling.(Pg-109,110)

8. Explain Wien's law and why our eyes are sensitive only to visible rays?

9. Discuss the   a. thermal equilibrium(Pg-113)   b. mechanical equilibrium(Pg-114)
                c. Chemical equilibrium(Pg-114)   d. thermodynamic equilibrium.(Pg-114)

10. Explain Joule's Experiment of the mechanical equivalent of heat.(Pg-117)

11. Derive the expression for the work done in a volume change in a thermodynamic system. (Pg-121)

12. Derive Mayer's relation for an ideal gas.(Pg-124)

13. Explain in detail the isothermal process.(Pg-124,125,126)

14. Derive the work done in an isothermal process.(Pg-126)

15. Explain in detail an adiabatic process.(Pg-128,129)

16. Derive the work done in an adiabatic process.(Pg-130,131)

17. Explain the isobaric process and derive the work done in this process.(Pg-132,133)

18. Explain in detail the isochoric process.(Pg-134,135)

19. What are the limitations of the first law of thermodynamics?(Pg-149)

20. Explain the heat engine and obtain its efficiency.(Pg-142,143)

21. Explain in detail Carnot heat engine.(Pg-144,145,146,147)

22. Derive the expression for Carnot engine efficiency.(Pg-148)

23. Explain the second law of thermodynamics in terms of entropy.(Pg-149,150)

24. Explain in detail the working of a refrigerator.(Pg-150)

ADDITIONAL QUESTIONS:(LONG ANSWER)

1. Explain example for zeroth law of thermodynamics.(Pg-115,116)

2. Explain PV diagram for a cyclic process.(Pg-138,139)

UNIT - 9: KINETIC THEORY OF GASES
SHORT ANSWER QUESTIONS (BOOK BACK):

1. What is the microscopic origin of pressure? (Pg-165)

2. What is the microscopic origin of temperature? (Pg-168)

3. Why moon has no atmosphere? (Pg-170)

4. Define rms speed, average speed and most probable speed of a gas molecule. (Pg-169,171)

5. What is the relation between the average kinetic energy and pressure?(Pg-168)

56 Define the term degrees of freedom. (Pg-173)

7. State the law of equipartition of energy. (Pg-175)

8. Define mean free path and write down its expression. (Pg-177,178)

9. Deduce Charles' law based on kinetic theory. (Pg-169)

10. Deduce Boyle's law based on kinetic theory. (Pg-169)

11. Deduce Avogadro's law based on kinetic theory. (Pg-169)

12. List the factors affecting the mean free path. (Pg-178)

13. What is the reason for Brownian motion? (Pg-179)

ADDITIONAL QUESTIONS:(SHORT ANSWER)

1. Why No hydrogen in Earth's atmosphere.(Pg-170)

2. Define Brownian motion. (Pg-179)

3. List the factors affecting the Brownian motion? (Pg-179)

LONG ANSWER QUESTIONS (BOOK BACK):

1. Write down the postulates of kinetic theory of gases. (Pg-164)

2. Derive the expression of pressure exerted by the gas on the walls of the container. (Pg-165)

3. Explain in detail the kinetic interpretation of temperature. (Pg-167)

4. Describe the total degrees of freedom for monoatomic molecule, diatomic molecule and triatomic molecule. (Pg-174)

5. Derive the ratio of two specific heat capacities of monoatomic, diatomic and triatomic molecules (Pg-176,177)

6. Explain in detail the Maxwell Boltzmann distribution function.(Pg-172)

7. Derive the expression for mean free path of the gas.(Pg-177)

8. Describe the Brownian motion. (Pg-179)

ADDITIONAL QUESTIONS:(LONG ANSWER)

1. State and explain equipartition of energy.(Pg-175,176)

UNIT -10: OSCILLATION

SHORT ANSWER QUESTIONS (BOOK BACK):

1. What is meant by periodic and non periodic motion?. Give any two examples, for each motion.(Pg-189)

2. What is meant by force constant of a spring?(Pg-190)

3. Define time period of simple harmonic motion.(Pg-196)

4. Define frequency of simple harmonic motion.(Pg-196)

5. What is an epoch?(Pg-196)

6. Write short notes on two springs connected in series.(Pg-203,204)

7. Write short notes on two springs connected in parallel.(Pg-205,206)

8. Write down the time period of simple pendulum.(Pg-208)

9. State the laws of simple pendulum?(Pg-208,209)

10. Write down the equation of time period for linear harmonic oscillator. (Pg-196)

11. What is meant by free oscillation?.(Pg-213)

12. Explain damped oscillation. Give an example. (Pg-213)

13. Define forced oscillation. Give an example. (Pg-214)

14. What is meant by maintained oscillation?. Give an example. (Pg-214)

15. Explain resonance. Give an example. (Pg-214)

ADDITIONAL QUESTIONS: (SHORT ANSWER)

1. Define Oscillatory motion. Give example.(Pg-189)

2. Define simple harmonic motion (SHM). (Pg-190)

3. Define restoring force.(Pg-191)

4. Define angular frequency of simple harmonic motion.(Pg-196)

5. What is an phase?(Pg-196)

6. What is angle of epoch?(Pg-196)

7. Write a note on Phase difference.(Pg-196,197)

8. What is called flexibility constant or compliance.(Pg-204)

9. Soldiers are not allowed to march on a hanging bridge. Why? (Pg-215)

LONG ANSWER QUESTIONS (BOOK BACK):

1. What is meant by simple harmonic oscillation?. Give examples and explain why every simple harmonic motion is a periodic motion whereas the converse need not be true.(189,190)

2. Describe Simple Harmonic Motion as a projection of uniform circular motion.(Pg-191)

3. What is meant by angular harmonic oscillation?. Compute the time period of angular harmonic oscillation.(Pg-198,199)

4. Write down the difference between simple harmonic motion and angular simple harmonic motion. (Pg-199)

5. Discuss the simple pendulum in detail.(Pg-207,208)

6. Explain the horizontal oscillations of a spring.(Pg-200,201)

7. Describe the vertical oscillations of a spring.(Pg-201,202)

8. Write short notes on the oscillations of liquid column in U-tube. (Pg-210)

9. Discuss in detail the energy in simple harmonic motion.(Pg-210,211,212)

10. Explain in detail the four different types of oscillations. (Pg-213)

ADDITIONAL QUESTIONS: :(LONG ANSWER)

1. Explain Displacement, velocity, acceleration and its graphical representation - SHM. (Pg-193,194,195)

2. If the spring is cut in to two pieces, what is the spring constant of that two species? (Pg-206)

3. Derive an expression for Pendulum length due to effect of temperature. (Pg-209)

UNIT -11: WAVES

SHORT ANSWER QUESTIONS (BOOK BACK):

1. What is meant by waves?. (Pg-224)

2. Write down the types of waves. (Pg-227)

3. What are transverse waves?. Give one example. (Pg-227)

4. What are longitudinal waves?. Give one example. (Pg-227)

5. Define wavelength. (Pg-228)

6. Write down the relation between frequency, wavelength and velocity of a wave. (Pg-230)

7. What is meant by interference of waves? (Pg-249)

8. What is meant by the beats and beat frequency?. (Pg-252)

9. Define intensity of sound and loudness of sound. (Pg-260)

10. Define Doppler Effect. (Pg-267)

11. Explain red shift and blue shift in Doppler Effect. (Pg-***)

12. What is meant by end correction in resonance air column apparatus? (Pg-265)

13. Sketch the function y = x + a. Explain your sketch.(Pg-***)

14. Write down the factors affecting velocity of sound in gases. (Pg-237,238)

15. What is meant by an echo? Explain. (Pg-242)

ADDITIONAL QUESTIONS :(SHORT ANSWER)

1.Discuss about the formation of waves on stretched string?(Pg-225)

2.Mention the important properties which medium should posses for propagation of waves. (Pg-226)

3.What are the characteristics of wave motion.(Pg-226)

4.Write the difference between transverse and longitudinal waves.(Pg-228)

5.Define frequency and time period.(Pg-229)

6. Give the relation between velocity (v), angular velocity (ω) and wave number (k). (Pg-230)

7. Define wave number. (Pg-230)

8. Define wave velocity. (Pg-230)

9. Define wave vector. (Pg-230)

10.Define amplitude of the wave . (Pg-231)

11.Define reflection and refraction of sound. (Pg-239)

12.State laws of reflection of sound. (Pg-240)

13. Define specular reflection. (Pg-240)

14.What is persistence of hearing? (Pg-242)

15.Define Supersonic speed. (Pg-243)

16. Define Mach number. (Pg-243)

17. What is progressive wave (or) travelling wave? (Pg-243)

18. Give the relation between phase difference and path difference. (Pg-251)

19. What are called stationary waves? (Pg-254)

20. Give the properties of stationary waves. (Pg-225)

21. Give the applications of Doppler Effect. (Pg-270)

22. Define inverse square law of sound intensity. (Pg-260)

23. Write a note on SONAR. (Pg-242)

24. State Weber-Fechner's law. (Pg-261)

LONG ANSWER QUESTIONS (BOOK BACK):

1. Discuss how ripples are formed in still water.(Pg-225)

2. Briefly explain the difference between travelling waves and standing waves.(Pg-256)

3. Show that the velocity of a travelling wave produced in a string is v=√T/μ.(Pg-232)

4. Describe Newton's formula for velocity of sound waves in air and also discuss the Laplace's correction.(Pg-236,237)

5. Write short notes on reflection of sound waves from plane and curved surfaces.(Pg-240,241)

6. Briefly explain the concept of superposition principle. (Pg-247,248)

7. Explain how the interference of waves is formed.(Pg-249,250)

8. Describe the formation of beats.(Pg-253)

9. What are stationary waves?. Explain the formation of stationary waves and also write down the characteristics of stationary waves.(Pg-254,255,256)

10. Discuss the law of transverse vibrations in stretched strings.(Pg-259)

11. Explain the concepts of fundamental frequency, harmonics and overtones in detail.(Pg-258)

12. What is a sonometer?. Give its construction and working. Explain how to determine the frequency of tuning fork using sonometer. (Pg-256,257)

13. Write short notes on intensity and loudness.(Pg-259,260,261)

14. Explain how overtones are produced in a

(a) Closed organ pipe(Pg-261,262,263)   (b) Open organ pipe(Pg-263,264)

15. How will you determine the velocity of sound using resonance air column apparatus? (Pg-265)

16. What is meant by Doppler effect?. (Pg-267-269)

Discuss the following cases

(1) Source in motion and Observer at rest

(a) Source moves towards observer   (b) Source moves away from the observer

(2) Observer in motion and Source at rest.

(a) Observer moves towards Source   (b) Observer resides away from the Source

(3) Both are in motion

(a) Source and Observer approach each other (b) Source and Observer resides from each other

(c) Source chases Observer   (d) Observer chases Source

ADDITIONAL QUESTIONS: :(LONG ANSWER)

1.Explain formation of waves in a tuning fork.(Pg-226)

2.Explain mechanical wave motion and it's types.(Pg-227)

3.Derive an expression for Velocity of longitudinal waves in an elastic medium.(Pg-233,234)

4.Explain Factors affecting speed of sound in gases.(Pg-237)

5.Explain applications of reflection of sound waves. (Pg-241)

6.Discuss the Classification of sound waves.(Pg-243)

7.Write the important Characteristics of progressive waves.(Pg-243)

8.Explain Graphical representation of the wave.(Pg-245,246)

9.Explain Particle velocity and wave velocity.(Pg-246,247)

10.Derive the relation between intensity and loudness.(Pg-260,261)

PREPARED BY: M.Tamizharasan.M.Sc.,B.Ed.,

PGT in PHYSICS,

M M A HR SEC SCHOOL- PAPPANADU,
THANJAVUR DT.