GREENLAWNS HIGH SCHOOL
TERMINAL EXAMINATION YEAR 2017-2018

SUBJECT : PHYSICS   CLASS : VIII

TIME : 1 ½ HOURS   MARKS : 80

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Note:-

   i)   The first ten minutes are meant for reading this question paper. The time given at the head of the paper is the time allotted for writing this paper.

   ii)   Section A is compulsory. Attempt all questions from this section.

   iii)   In Section B, attempt any 4 questions out of 5.

   iv)   All answers to be written on the answer booklet. Show the working and calculation wherever required. (ON THE SAME PAGE)

Section A (40 Marks)

Q.I A) Match the column and rewrite the pairs: (3)

Column A		Column B	
i)	Centi	a)	10^{-6}
ii)	Micro	b)	10^{-2}
iii)	Nano	c)	10^{-9}
iv)	Mega	d)	10^{6}
v)	Giga	e)	10^{-6}
vi)	Kilo	f)	10^{3}
		g)	10^{9}

B) Name the following:-

   i) The maximum displacement of the particle of the medium on either side.   (1)

   ii) The process of comparing a given physical quantity with a known standard quantity of the same nature.   (1)

   iii) Two system of units used.   (1)

   iv) The unit of distance which is the mean distance between Earth and Sun.   (1)

   v) Returning back of light in the same medium after striking a surface.   (1)

   vi) Bodies which emit light by themselves.   (1)

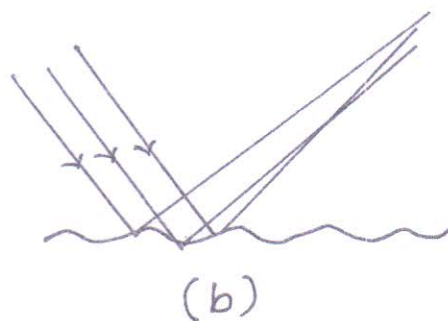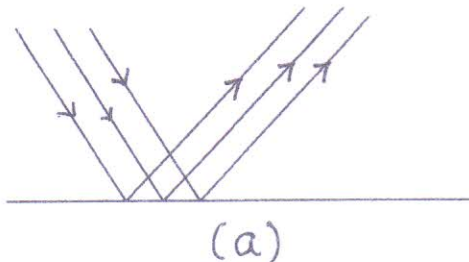   vii) Change from vapour state to liquid state on removal of heat.   (1)

Q.II A) Distinguish between:- (2 points each)   (6)

   1) Mass and weight

   2) Evaporation and boiling

   3) Liquids and gases

B) Define:-   (4)

   i) Vaporization

   ii) Wavelength

   iii) Fusion

   iv) Pitch

Q.III A) **Answer the following questions with the help of the figure.**

(a)   (b)

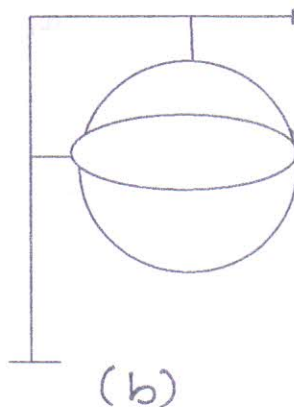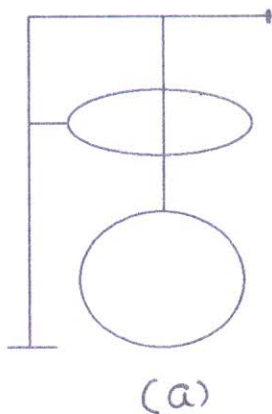i)   Why is phenomenon (b) taking place.   (1)
ii) Define the phenomenon (a) and (b).   (2)
iii) Name one surface from which (a) is possible.   (1)
iv) State two laws of reflection.   (2)

B) **Give the least count of**:   (4)
i)   Metre rule - _____
ii) Vernier Calliper - _____
iii) Micrometer Screw Gauge - _____
iv) Stop Watch - _____

Q.IV A) **Answer the following questions with the help of metal ball and ring diagram given below**:-

(a)   (b)

i)   What do you observe in diagram (b). Why?   (2)
ii) What conclusion can be drawn from the above two diagrams?   (1)

B) i) What is superficial expansion.   (1)
   ii) Name any 2 factors on which superficial expansion's increase depends.   (2)

C)   **Give Reasons**:-
   i)   Small gaps are left between two rails of a railway track.   (1)
   ii) Food cooks faster in a pressure cooker.   (1)
   iii) Doctors advise to put strips of wet cloth on the forehead of a person with high fever.(1)
   iv) The membrane of the tabla is stretched by the means of strings.   (1)

Section B (40 Marks)
(Attempt any 4 questions out of 5)

Q.V A) What is monotone? Name a device that produces such a sound. (2)

B) Describe 3 factors that affect the rate of evaporation. (3)

C) Name 3 properties which decide the state of a substance. (3)

D) Two waves travelling in the same direction having the same pitch, have their amplitudes in the ratio 1:2. What will be the ratio of their (2)

    i)   Loudness   ii)   Pitch

Q.VI A) Why does the loudness of a plucked wire increase when mounted on a wooden board? (1)

B) Fill in the blanks by choosing the correct option:- (2)

    i) Boiling occurs at _____ temperatures. (all/fixed)

    ii) The unit of loudness is _____ (decibel/hertz)

    iii) Sound travels fastest in _____ and slowest in _____ (solids, liquids, gases)

C) Calculate the density of a solid having mass of 64 g and volume of 100 cm^3. (2)

D) Name 4 factors on which loudness of sound depends. (2)

E) What do you understand by the term: (2)

    i) Quality

    ii) Pitch

F) Define light year. (1)

Q.VII A) What is the safe limit for humans to hear sound? (1)

B) Calculate the volume of a cuboid whose length = 10 cm, breadth = 20 cm and height = 5 cm. (2)

C) State any 3 factors based on which a good unit can be chosen. (3)

D) Decide if 2400 is going to be a leap year or not? (show your calculations) (1)

E) Give the equation to show the relation between loudness and amplitude. (1)

F) What are fundamental and derived quantities. Give an example to support your answer. (2)

Q.VIII A) Give any 2 characteristics of molecules. (2)

B) What is lateral inversion. Write the laterally inverted image of the word "GREENLAWNS". (3)

C) How is a lower note obtained in case of a flute? (2)

D) Write an equation showing the relation between frequency and time? (1)

E) What is a thermostat? Where is it used? (2)

Q.IX A) Define coefficient of linear expansion? Also state its unit. (2)

B) Why is invar used to make pendulum clocks? (1)

C) What do you understand by total internal energy? Give its S.I unit. (2)

D) Give any two effects produced by heat? (2)

E) What is anomalous expansion of water. (2)

F) Give the level above which sound becomes noise for a normal listener. (1)

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