Physics (New Book) - 9th Class Physics English Medium Short Question Preparations

Q1. Describe relation between heat capacity and quantity of substance

Ans 1: Relation: Heat Capacity mass
Larger is the quantity of a substance larger will be its heat capacity

Ans 2: Example: Heat capacity of 1kg water is 4200jkg then heat capacity of 5kg water is 21000jkg

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Q2. Write two uses of conductors.

Ans 1: Uses of conductors: Good conductors are used when quick transfer of heat is required through a body Cookers, cooking plate, boiler, radiators and condensers of refrigerators, etc are made of metals such as aluminum and coper for the better conduction
Metal boxes are used to make ice and ice cream

Ans 2: Uses of non-conductors: Insulators or non-conductors are used in home utensils such as handles of sauce-pans hot plates spoons etc they are made up of wood or plastic
Air is one of the bad conductors or best insulator That is why cavity walls i.e. two walls those are separated by an air space and double glazed windows keep the houses warm in winter and cool in summer

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Q3. Mechanical energy converts into heat energy give its example

Ans 1: Mechanical energy converts into heat energy
Example: Rub your hands together quickly You will feel them warm You have used r muscular energy in rubbing hands as a result heat is produced

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Q4. What is thermometer?

Ans 1: A device which is used to measure the temperature of a body is called thermometer.

Q5. Why do we need to measure extremely small interval of time.

Ans 1: In physics most of the physical quantities are related to time like speed. velocity, acceleration etc. So to measure a quantity with great precision we need to measure extremly small interval of time.

Q6. Writer down rules to find the significant digits.

Ans 1: Rule to find the significant digits: Digits other than zero are always significant. i.e 27 has 2 significant digits and 275 has 3 significant digits
Zero between significant digits are also significant .e.g. 2705 has 4 significant digits.
Zeros after decimal point are significant. e.g 275.00 has 5 significant digits.

Q7. Define Energy

Ans 1: Energy Ability of a body to do work is called energy

Ans 2: Unit: It has two basic types It SI unit is Joule

Q8. In a right angled triangle length of base is 4cm and its perpendicular is 3cm.

Ans 1: length of its hypotenuse, cos , sin, tan,

Q9. What is orbital speed of a low orbit satellite

Ans 1: A satellite revolving around very close to the Earth, has speed V nearly 8kms

Q10. Define rate of flow of heat?

Ans 1: The amount of heat that flows in unit time is called rate of flow heat. Rate of flow of heat = Q/t Unit: Its unit is Js-1

Q11. Write the bigger units of power

Ans 1: Bigger Units bigger units of power: Bigger of power are kilowatt (kw), megawatt (MW) horse power The relation between them is as follow

Q12. What is state of neutral equilibrium

Ans 1: Neutral Equilibrium: If a body remains in its new position when disturbed from its previous position then body is said to be in neutral equilibrium

Ans 2: Note In neutral equilibrium centre of gravity of body keeps its height.

Q13. Define uniform speed.

Ans 1: A body has uniform speed if it covers equal distance in equal intervals of time however the short interval may be .

Q14. Define inertia. Describe two of inertia.

Ans 1: Inertia of a body is its property due to which it resists any change in its state of rest on motion.
Example 1:
Take a glass cover it with a piece of cardboard. Now kick the card horizontally with a Jerk of your finger. The coin does not move with the cardbeardwith the inertia and falls in to the glass
Example 2:

Cut a strip of paper, place it on the table. Stack a few coins at its on end. Stack a few coins at its an end pull out the paperstrip under the coins with a jerk we will succeed in pulling out the paper strip under the stacked coinwithout letting them to fall.

Q15. What would be shape of speed-time graph of a body moving with variable speed.

Ans 1: Shape of a speed-time graph of an object moving with variable speed will always be a curve. It would never be a straight line.

Q16. Define scientific notation. Describe. it with examples.

Ans 1: Scientific Notation: In scientific notation a number is expressed as some power of ten multiplied by a number between 1 to 10 A simple but scientific way to write large or small numbers is to express them is some power of ten.
The Moon is 384000000 metres away from the Earth. Distance of the moon form the Earth can also be expressed as 3.84*10m.
This form of expressing a number is called the standard form or scientific notation. This saves writing down or interpreting large numbers of zeros.

Q17. Writer two disadvantages and two disadvantages of friction.

Ans 1: Advantages of friction: It cannot not written if there would be no friction between paper and pencil
Friction enables us to walk on ground We cannot run on a slippery ground because it offers very little friction.

Ans 2: Disadvantages of friction: Friction is undesirable when moving with high speeds because it opposes the motion and thus limits the speed of moving objects
Most of our useful energy is lost as heat and sound due to the friction between various moving parts of machines.

Q18. Define conduction with example.

Ans 1: Conduction: The mode of transfer of heat by vibrating atoms and free electrons in solids from hot to cold parts of a body is called conduction heat. Example: All metals are good conductors of heat.

Q19. What is digital stopwatch.

Ans 1: Mechanical stopwatch: A mechanical stopwatch can measure a time interval up to minimum 0.1 second
A mechanical stopwatch shows reading through needles
During measuring reading may be a human error in reading
The least count of mechanical stopwatch is 0.1 second

Ans 2: Digital Stopwatch: Digital stopwatch is commonly used in laboratories can measure a time interval as small as second or 0.01
A digital stopwatch shows reading through digits
During measuring reading may not be a human error in reading
The least count of digital stopwatch is 1/100 or 0.01

Q20.

What si significant figures.

Ans 1:

In any measurient the accurately known digits and the first doubtful digit are known as significant figures.