FBQ1: Systematic error can be eliminated to an ___.
Answer: *extent*

FBQ2: In an experiment to determine the acceleration due to gravity of a simple pendulum, the measurements needed from the instrument are length of the thread and ____of oscillation of the pendulum bob
Answer: *time*

FBQ3: The S.I unit of acceleration due to gravity, g is __.
Answer: ms-Â²*

FBQ4: The error due to wear and tear of a particular instrument is called____.
Answer: *Back lash error*

FBQ5: Error not due to instrumental problem is _____.
Answer: *Observational error*

FBQ6: _____causes like parallax in reading a voltmeter scale.
Answer: *Faulty observation*

FBQ7: A plotted graph showing a straight line through the origin indicates thatthe two plotted variables are ____ to each otherÂ
Answer: *directly proportional*

FBQ8: To record the observations during an experiment the measured values would be recorded to at least __ decimal places
Answer: *two*

FBQ9: If y is plotted on the vertical axis and x on the horizontal axis in equation y = mx, the slope is m which is the____ value.
Answer: *constant*

FBQ10: ____are due to causes which can be identified.
Answer: *Systematic error*

FBQ11: In the equation y = mx + b, m and b are ____.
Answer: *constants*

FBQ12: When independent measurements are multiplied or divided the___ in error in the result is the square root of the sum of squares of fractional errors in individual quantities.
Answer: *fractional error*

FBQ13: The following values 32, 30, 28, 26 have two significant digits except _____.
Answer: *30*

FBQ14: In recording the observations in an experiment, the calculated values like reciprocal, square, sine of values would be recorded to at least __ decimal places
Answer: *three*

FBQ15: The error in the result is found by determining how much change occurs in the result when the maximum error occurs in the _____.
Answer: *Data*

FBQ16: Data collected can be used to show____ between two physical quantities through graphs.
Answer: *relationship*

FBQ17: Which type of motion is executed by a simple pendulum bob?
Answer: *simple harmonic motion*

FBQ18: ____is defined as when an object moves to and fro in such a way that its acceleration is directly proportional to its displacement and is always directed to its equilibrium position.
Answer: *simple harmonic motion*

FBQ19: Materials that can regain their original shape after the deformation (change in dimensions) are called____.
Answer: *Elastic materials*

FBQ20: An ___is said to perform simple harmonic motion if it moves to and fro in such a way that its acceleration is directly proportional to its displacement and is always directed to its equilibrium position
Answer: *object*

FBQ21: A measurement possessing greater number of significant digits has _____ accuracy
Answer: *Greater*

FBQ22: At _____ position of Simple Harmonic Motion (SHM) the displacement of the body is zero.
Answer: *Equilibrium*

FBQ23: What is the unit of the specific latent heat of fusion of ice?
Answer: *Jkg-1*

FBQ24: If a simple pendulum of mass was displaced such that the bob made 20 oscillations in 45.70 seconds. Calculate the period T of oscillation in second.
Answer: *2.29*

FBQ25: The period of oscillation is the time taken for the body to make ___complete oscillation
Answer: *one*

FBQ26: When a mass is hung on a spring stretches 6 cm, its period of vibration if it is then pulled down a little is _____.
Answer: *0.5s*

FBQ27: A mass (m) is hung at the end of a spiral spring of force constant of 200N/m. If the spring oscillates with a period of 0.45 s when set in motion, the value of its mass is ____.
Answer: *1kg*

FBQ28: ____can be defined as the ratio of the mass of water to the mass of an equal volume of water.
Answer: *Relative density*

FBQ29: Relative density bottle is also called _____ gravity bottle.
Answer: *specific*

FBQ30: If two values have equal unit of measurement, they are therefore said to be ___ Equally_____.
Answer: *precise*

FBQ31: Glass is an example of ____ material
Answer: *Brittle*

FBQ32: The relationship between any two physical quantities can be determined through the use of ___.
Answer: *graph*

FBQ33: Whose law is this â€˜the force on an elastic material is directly proportional to the extension produced provided that the elastic limit is not exceededâ€™
Answer: *Hooke*

FBQ34: If the graph of force F is plotted against the extension e, we shall obtain a ___ graph showing that Hooke's law is obeyed.
Answer: *linear*

FBQ35: A mass of 40kg hung on an elastic spring of length 37.2cm extends to 42.0cm. The force constant of the spring take g as 10msÂ¯Â² is ____.
Answer: *83.33 NmÂ¯Â¹*

Multiple Choice Questions (MCQs):
MCQ1: Which of the following measurement done with meter rule is more precise?
Answer: 17.9 cm

MCQ2: Relative error is ___
Answer: the difference between possible error and the total measurement

MCQ3: The two types of variables that can be measured are ____.
Answer: X and Y variables

MCQ4: If two values have equal unit of measurement, they are therefore said to be ____
Answer: equally precise

MCQ5: The value of acceleration due to gravity depends on one of these:
Answer: velocity

MCQ6: The period of the body performing simple harmonic motion is 2s. If the amplitude of the motion is 3.5 cm, calculate the maximum speed (Ï€=22/7).
Answer: 20.4 cm/s

MCQ7: Which of the following is the best equation of a non-linear graph?
Answer: y=ax+bx

MCQ8: Â If the graph produced is a straight line, then the relationship is described as____
Answer: Linear

MCQ9: Graphs showing how two physical measurements are related can be represented in which form?
Answer: Variable

MCQ10: If y=mx + b, and y is plotted against x; what type of graph will be obtained?
Answer: horizontal graph

MCQ11: Relative error can be defined as____
Answer: product of the possible error to the total measurement

MCQ12: A measurement possessing greater number of significant digits has ___
Answer: less relative accuracy

MCQ13: The time taken for a given event is 7.4s and the possible error is 0.05cm, what is the relative error?
Answer: 0.003

MCQ14: Consider the following pair of measurements 40.0cm or 8.0cm. Which one is more accurate?
Answer: 8.0cm

MCQ15: the following physical quantities are fundament quantities except
Answer: Density

MCQ16: Which of the following is correct about types of graph?
Answer: linear graph

MCQ17: Multiplication and division rule states that the product or quotient of two measurements should be rounded off ___
Answer: to contain less significant digits as the measurement having fewer numbers of significant digits

MCQ18: In measurement report, the non-zero digits are___
Answer: not significance

MCQ19: If x is equal to 1 in the equation y = mx, what will be the value of y?
Answer: y = 0

MCQ20: consider the equation T= 2Ï€âˆš(l/g) if T is plotted against Ï€,the graph obtains will be_____Â
Answer: linear graph

MCQ21: Which of these statements about measurement is correct?
Answer: All measurements are not exact

MCQ22: Multiply the following figures: 5.2865, 3.8 and 19.62 and round off the result to more accurate value
Answer: 394.14

MCQ23: Divide 9.5362 by 3.2 round off the result to more accurate value
Answer: 3.21

MCQ24: Scientific measurements are expressed by using ____
Answer: rules

MCQ25: The major errors in measuring instrument are
Answer: zero error

MCQ26: Human errors are based on;
Answer: judgement and precision

MCQ27: The possible error in measurement is due to
Answer: imprecision in measuring devices

MCQ28: Precision is a function of _____
Answer: relative error only

MCQ29: The temperature of two places are recorded to be 30.56C and 32.22C we can say that they are___
Answer: equally precise

MCQ30: A digit is significant if and only if ___
Answer: it affects the possible error

MCQ31: Which of the following pair of quantities have identical S I unit?I . Force and surface tensionII. Surface tension and spring constant III. Torque and spring constant IV. Youngâ€™s modulus and pressure
Answer: II only

MCQ32: The inverse of the slope of graph of extension against tension in the spring represents _____.
Answer: reciprocal of the spring constant

MCQ33: If m and b are constants in the graph of y = mx + b. The value of the constant

b represents ___.
Answer: intercept on the graph

MCQ34: The following are sources of error in a measuring instrument except ___
Answer: they arise due to changes in environment

MCQ35: One of the following is not a systematic error.
Answer: errors in judgement of an observer