

eExam Question Bank

Coursecode:

Choose Coursecode


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<input type="checkbox"/>	Question Type ↓	Question ↑	A ↑	B ↑	C ↑	D ↑	Answer ↑	Remark ↑
<input type="checkbox"/>	FBQ	In an experiment, the function $y = -ax^2 + bx + c$ , where a, b and c are constant, was plotted with y on the vertical axis and x on the horizontal axis. At maximum point on the graph, the tangent to the curve is <input type="text"/> to the x-axis?	parallel	parallel				<input type="button" value="eExam"/>
<input type="checkbox"/>	FBQ	The instrument usually used for measuring the internal diameter of a test-tube in the laboratory is <input type="text"/>	vernier calipers	vernier calipers				<input type="button" value="eExam"/>
<input type="checkbox"/>	FBQ	In the laboratory, the device usually used for measuring the diameter of a piece of wire is called <input type="text"/>	micrometer screw guage	micrometer screw guage				<input type="button" value="eExam"/>
<input type="checkbox"/>	FBQ	The statement "the upthrust experienced by an object that is wholly or partially immersed in a fluid is equal to the weight of the liquid displaced" is the <input type="text"/> principle	Archimedes	Archimedes				<input type="button" value="eExam"/>
<input type="checkbox"/>	FBQ	The maximum displacement of an oscillating from its equilibrium position is referred to as its <input type="text"/>	amplitude	amplitude				<input type="button" value="eExam"/>
<input type="checkbox"/>	FBQ	The inverse of the period of oscillation is the same as its <input type="text"/>	frequency	frequency				<input type="button" value="eExam"/>
<input type="checkbox"/>	FBQ	If n complete oscillations are made in t seconds, then the period T of oscillation is given as T= <input type="text"/> s.	t/n	t/n				<input type="button" value="eExam"/>

<input type="checkbox"/>									
<input type="checkbox"/>	FBQ	In experiments involving oscillations, the number of complete oscillations per unit time is the <input type="text"/> of the oscillation	frequency	frequency					eExam
<input type="checkbox"/>	FBQ	In general, a device used for measuring mass in the laboratory is called <input type="text"/>	balance	balance					eExam
<input type="checkbox"/>	FBQ	In practical physics it is advisable to display your observation data in an all-inclusive table known as <input type="text"/> table	composite	composite					eExam
<input type="checkbox"/>	FBQ	Relative density of a liquid or granular substance not soluble in water can be experimentally determined using an apparatus known as relative density or <input type="text"/> bottle	specific gravity	specific gravity					eExam
<input type="checkbox"/>	FBQ	An experiment was performed to determine the coefficient of friction using the scale pan or slot-weights method. A graph of the tension T in the string connecting the block on a bench and passing over a pulley to a freely hanging pan or slot-weights was plotted against the weight W of the block. The slope $\frac{\Delta T}{\Delta W}$ gives the <input type="text"/>	limiting friction	coefficient of static friction					eExam
<input type="checkbox"/>	FBQ	The coefficient of friction between two surfaces is defined as the ratio of the frictional force to <input type="text"/> to the surfaces	normal reaction	normal reaction					eExam
<input type="checkbox"/>	FBQ	To determine the coefficient of friction between two surfaces we can place a block of material such as wood on an <input type="text"/> and gradually increase its angle until the block just begins to slide	inclined plane	inclined plane					eExam
<input type="checkbox"/>	FBQ	In all experiments involving the method of mixtures (calorimetry), uniform temperature of the mixture is maintained by continually and gently <input type="text"/> it.	stirring	stirring					eExam
<input type="checkbox"/>	FBQ	In an experiment to determine the specific heat of fusion of ice the calorimeter must be <input type="text"/> to prevent loss of heat to the surrounding	lagged	thermally insulated					eExam

<input type="checkbox"/>								
<input type="checkbox"/>	FBQ	The temperature at which, theoretically all thermal motions will cease is called <input type="text"/> temperature	absolute zero	absolute zero				eExam
<input type="checkbox"/>	FBQ	In an experiment to verify Boyle's law, a student plotted P against V. His graph is a <input type="text"/>	hyperbola	hyperbola				eExam
<input type="checkbox"/>	FBQ	In an experiment to determine the surface tension of water by the capillary rise method, the instrument called <input type="text"/> is used to measure the capillary rise	travelling microscope	venier microscope				eExam
<input type="checkbox"/>	FBQ	For a loaded spiral spring, provided the <input type="text"/> of the spring is not exceeded, we write, $F = -kx$ , where the symbols have the usual meaning.	elastic limit	elastic limit				eExam
<input type="checkbox"/>	FBQ	The equation of a simple harmonic oscillator takes the form $a = -\omega^2 x$ . The symbols have their usual. The equivalent of $\omega^2$ in the case of a simple pendulum is <input type="text"/>	g/l	g/l				eExam
<input type="checkbox"/>	FBQ	The motion of a simple harmonic oscillator is such that the acceleration is in <input type="text"/> direction to the displacement from equilibrium position	opposite	opposite				eExam
<input type="checkbox"/>	FBQ	In simple harmonic motion, the restoring force F obeys <input type="text"/> 's law for small displacements from equilibrium position	Hooke	Hooke				eExam
<input type="checkbox"/>	FBQ	To obtain a suitable spread of the plotted points on the graphed paper, a suitable <input type="text"/> must be chosen for each axis of the graph	scale	scale				eExam
<input type="checkbox"/>	FBQ	In a simple pendulum experiment, $T^2$ ( $s^2$ ) is plotted on the vertical axis while <input type="text"/> is plotted on the horizontal axis	l (cm)	l (cm)				eExam
<input type="checkbox"/>	FBQ	A straight line joining most of the plotted points with the rest of the plotted points on either sides of the line is called line of <input type="text"/>	bestfit	bestfit				eExam

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<input type="checkbox"/>	FBQ	The slope of the tangent to a curve which is parallel to the horizontal axis of the graph is <input type="text"/>	zero	0					eExam
<input type="checkbox"/>	FBQ	The slope of a graph is obtained from a suitable <input type="text"/> of slope drawn on the graph	triangle	triangle					eExam
<input type="checkbox"/>	FBQ	A quantity to be measured as <input type="text"/> value is independent of the process of measurement	true	true					eExam
<input type="checkbox"/>	FBQ	An experiment which gives a straight line graph with positive intercepts on both axes of the graph has a An experiment which gives a straight line graph with positive intercepts on both axes of the graph has a <input type="text"/> slope	negative	negative					eExam
<input type="checkbox"/>	FBQ	When writing the results of an experimental observation in terms of significant digits, all non-zero digits are <input type="text"/>	significant	significant					eExam
<input type="checkbox"/>	FBQ	The resulting temperature when 1kg of ice at 0 degrees Celcius is mixed with 9kg of water at 50 degree Celcius is <input type="text"/> to the nearest whole number. The specific capacity of water is 4200J/kg/K, the specific latent heat of fusion of ice is 330 000J/kg	37degrees Celcius	37degrees Celcius					eExam
<input type="checkbox"/>	FBQ	A wooden block is at the verge of sliding freely down a wooden inclined plane when the inclination is 20degrees. The coeficient of limiting friction is <input type="text"/> to 2 decimal places	0.36	0.36					eExam
<input type="checkbox"/>	FBQ	A mass of 150g when hung on a spiral spring stretches it 40cm. Assuming the spring is Hookean, the period of oscillation of the mass when slightly displaced and released is <input type="text"/> to 2 decimal places	1.27s	1.27s					eExam
<input type="checkbox"/>	FBQ	In an experiment, measurements of variables were repeated in order to minimise <input type="text"/>	random error	random error					eExam

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<input type="checkbox"/>	FBQ	The simple pendulum experiment is used to determine an inaccessible height $H$ using the relation $T = \pi \sqrt{\frac{(H-h)}{g}}$ , where $h$ is the height of the bob from the floor. The inaccessible height is obtainable from the <input type="text"/> of the graph of $T^2$ plotted against $h$	intercept	intercept					eExam
<input type="checkbox"/>	FBQ	The displacement $s$ of a trolley as a function of time is given as $s = 0.63t \pm 0.02$ for $t = 1.71 \pm 0.10$ . The error $\Delta v$ in the measurement of velocity $v$ is <input type="text"/> to 2 decimal places.	0.02	0.02					eExam
<input type="checkbox"/>	FBQ	The precision index for the set of data 3.69, 3.67, 3.68, 3.69, 3.68, 3.69, 3.66, 3.67 is <input type="text"/> to 3 decimal places	0.003	0.003					eExam
<input type="checkbox"/>	FBQ	Errors that might result in measured values which are consistently too high or too low are called <input type="text"/> errors	systematic	systematic					eExam
<input type="checkbox"/>	FBQ	The sum of the measurements 2.11m, 2.1546m and 2.125m may be rounded off as <input type="text"/>	6.39m	6.39 m					eExam
<input type="checkbox"/>	FBQ	The product of two measurements 1.23cm and 2.3cm should be rounded off as <input type="text"/> .	2.8 cm	2.8cm					eExam
<input type="checkbox"/>	FBQ	In recording measured values, a digit is significant if and only if it affects the <input type="text"/> of the measurement	relative error	relative error					eExam
<input type="checkbox"/>	FBQ	A number $N$ is written as $N = A \times 10^p$ , where $A$ is a number between 1 and 10 and $p$ is an integer. In this form $N$ is said to be expressed in <input type="text"/>	scientific notation	standard form					eExam
<input type="checkbox"/>	FBQ	<input type="text"/> is the more accurate between the measurements 40.0 cm and 8.0 cm of length	40.0 cm	40.0cm					eExam
<input type="checkbox"/>	FBQ	A smaller measurement is more <input type="text"/> for the same accuracy	precise	precise					eExam

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<input type="checkbox"/>	FBQ	The maximum possible error in the measurement of length using the metre scale is <input type="text"/> .	0.05 cm	0.05cm					eExam
<input type="checkbox"/>	FBQ	The current $I$ passing through a silicon diode is related to potential difference $V$ across it by $I = I_0 \exp(eV/2kT)$ , where $I_0$ is a constant, $e$ the electronic charge, $k$ the Boltzmann's constant and $T$ the absolute temperature. $\ln I$ was experimentally plotted against $V$ at a given value of $T$ . The slope of the graph is <input type="text"/> .	$e/2kT$	$e/2kT$					eExam
<input type="checkbox"/>	FBQ	In an experiment to verify Boyle's law the $P$ (pressure) was plotted against <input type="text"/> of the volume $V$ to obtain a linear graph that passes through the origin	$1/V$	$1/V$					eExam
<input type="checkbox"/>	FBQ	The equation $x = at^b$ is suggested for the variation of two quantities $x$ and $t$ where $a$ and $b$ are constants. The corresponding equation of a straight line graph that may be plotted from experimental values of $x$ and $t$ is <input type="text"/> .	$\log x = \log a + b \log t$	$\log x = b \log t + \log a$					eExam
<input type="checkbox"/>	FBQ	In an experiment to determine the value of $g$ using simple pendulum, $T^2$ was plotted on the ordinate (vertical axis) and $l$ on the abscissa (horizontal axis), where $T$ and $l$ are the period and length of the pendulum respectively. The value of $g$ was determined to be $9.72 \text{ ms}^{-2}$ . The value of the slope $s$ to 2 decimal places was <input type="text"/> . Take $\pi = 22/7$	4.06	4.06					eExam
<input type="checkbox"/>	FBQ	In an experiment, the function $y = -ax^2 + bx + c$ , where $a$ , $b$ and $c$ are constant, was plotted with $y$ on the vertical axis and $x$ on the horizontal axis. At maximum point on the graph, the tangent to the curve is <input type="text"/> to the $x$ -axis?	parallel	parallel					
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<input type="checkbox"/>	FBQ	The resulting temperature when 1kg of ice at 0 degrees Celcius is mixed with 9kg of water at 50 degrees Celcius is <input type="text"/> to the nearest whole number. The specific capacity of water is 4200J/kg/K, the specific latent heat of fusion of ice is 330 000J/kg	37degrees Celcius	37degrees Celcius			
<input type="checkbox"/>	FBQ	A wooden block is at the verge of sliding freely down a wooden inclined plane when the inclination is 20degrees. The coefficient of limiting friction is <input type="text"/> to 2 decimal places	0.36	0.36			
<input type="checkbox"/>	FBQ	A mass of 150g when hung on a spiral spring stretches it 40cm. Assuming the spring is Hookean, the period of oscillation of the mass when slightly displaced and released is <input type="text"/> to 2 decimal places	1.27s	1.27s			
<input type="checkbox"/>	FBQ	In an experiment, measurements of variables were repeated in order to minimise <input type="text"/>	random error	random error			
<input type="checkbox"/>	FBQ	The simple pendulum experiment is used to determine an inaccessible height H using the relation $T = 2\pi\sqrt{\frac{(H-h)}{g}}$ , where h is the height of the bob from the floor. The inaccessible height is obtainable from the <input type="text"/> of the graph of $T^2$ plotted against h	intercept	intercept			

<input type="checkbox"/>							
<input type="checkbox"/>	FBQ	The displacement $s$ of a trolley as a function of time is given as $s = 0.63t \pm 0.02$ for $t = 1.71 \pm 0.10$ . The error $\Delta v$ in the measurement of velocity $v$ is <input type="text"/> to 2 decimal places.	0.02	0.02			
<input type="checkbox"/>	FBQ	The precision index for the set of data 3.69, 3.67, 3.68, 3.69, 3.68, 3.69, 3.66, 3.67 is <input type="text"/> to 3 decimal places	0.003	0.003			
<input type="checkbox"/>	FBQ	Errors that might result in measured values which are consistently too high or too low are called <input type="text"/> errors	systematic	systematic			
<input type="checkbox"/>	FBQ	The sum of the measurements 2.11m, 2.1546m and 2.125m may be rounded off as <input type="text"/>	6.39m	6.39 m			
<input type="checkbox"/>	FBQ	The product of two measurements 1.23cm and 2.3cm should be rounded off as <input type="text"/> .	2.8 cm	2.8cm			
<input type="checkbox"/>	FBQ	In recording measured values, a digit is significant if and only if it affects the <input type="text"/> of the measurement	relative error	relative error			
<input type="checkbox"/>	FBQ	A number $N$ is written as $N = A \times 10^p$ , where $A$ is a number between 1 and 10 and $p$ is an integer. In this form $N$ is said to be expressed in <input type="text"/>	scientific notation	standard form			
<input type="checkbox"/>	FBQ	<input type="text"/> is the more accurate between the measurements 40.0 cm and 8.0 cm of length	40.0 cm	40.0cm			
<input type="checkbox"/>	FBQ	A smaller measurement is more <input type="text"/> for the same accuracy	precise	precise			
<input type="checkbox"/>	FBQ	The maximum possible error in the measurement of length using the metre scale is <input type="text"/> .	0.05 cm	0.05cm			



<input type="checkbox"/>							
<input type="checkbox"/>	FBQ	The current $I$ passing through a silicon diode is related to potential difference $V$ across it by $I = I_0 \exp(eV/2kT)$ , where $I_0$ is a constant, $e$ the electronic charge, $k$ the Boltzmann's constant and $T$ the absolute temperature. $\ln I$ was experimentally plotted against $V$ at a given value of $T$ . The slope of the graph is <input type="text"/> .	$e/2kT$	$e/2kT$			
<input type="checkbox"/>	FBQ	In an experiment to verify Boyle's law the $P$ (pressure) was plotted against <input type="text"/> of the volume $V$ to obtain a linear graph that passes through the origin	$1/V$	$1/V$			
<input type="checkbox"/>	FBQ	The equation $x = at^b$ is suggested for the variation of two quantities $x$ and $t$ where $a$ and $b$ are constants. The corresponding equation of a straight line graph that may be plotted from experimental values of $x$ and $t$ is <input type="text"/> .	$\log x = \log a + b \log t$	$\log x = b \log t + \log a$			
<input type="checkbox"/>	FBQ	In an experiment to determine the value of $g$ using simple pendulum, $T^2$ was plotted on the ordinate (vertical axis) and $l$ on the abscissa (horizontal axis), where $T$ and $l$ are the period and length of the pendulum respectively. The value of $g$ was determined to be $9.72 \text{ ms}^{-2}$ . The value of the slope $s$ to 2 decimal places was <input type="text"/> . Take $\pi = 22/7$	4.06	4.06			

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