# **ATUL CLASSES**

Test / Exam Name: Ab Student Name:		Standard: 9th	Subject: Science	
		Section:	Roll No.:	
		Questions: 10	0 Time: 01:00 hh:mm Negative Ma	arks: 0 Marks: 100
<b>Q1.</b> The gravitationa unchanged, if th between them v	l force of attraction between t e distance between the objec vill become:	two objects is x. Keeping the m ts is halved, then the magnitu	nasses of the objects de of gravitational force	1 Mark
A $\frac{x}{4}$	<b>B</b> $\frac{\mathbf{x}}{2}$	<b>C</b> 2x	<b>D</b> 4x	
<ul> <li>Q2. When a piece of buoyant force from If the cork is pushed.</li> <li>A Will increase</li> <li>B Will decrease</li> <li>C Will first increase</li> <li>D Will remain to the cord of the cord</li></ul>	cork is put into the water it sto om water. hed more inside the water by as the cork is immersed into e as the cork is immersed into ease and then decrease as the the same as long as the cork is	tarts floating on the surface of applying the force than the be the water. the water. e cork is immersed more into t s inside the water.	water due to the upward uoyant force: he water.	1 Mark
Q3. When a solid blo	ock is fully immersed in water,	the volume of the water displ	aced is:	1 Mark
<ul><li>A Greater than</li><li>C Equal to the</li><li>D Depends uport</li></ul>	the volume ofthe block volume of the block on the manner in which the bl	<b>B</b> Less than the volock is immersed in the liquid	lume of the block	
<b>Q4.</b> The force of buc	yancy is equal to:			1 Mark
<ul><li>A Weight of th</li><li>D None of these</li></ul>	e body <b>B</b> Weight of the	liquid displaced by the body	<b>C</b> Apparent weight of the body	
<ul> <li>Q5. Which one of th</li> <li>A Archimedes'</li> <li>B The buoyant</li> <li>C Ice floats in v</li> <li>D Force acting</li> </ul>	e following statements is true principle can also be applied force depends on the nature water because the density of is on a unit area is called thrust.	: to gases of object immersed in the liqu ce is more than that of water.	id.	1 Mark
Q6. An object is put $\frac{1}{9}$ , $\frac{2}{11}$ and $\frac{3}{7}$ parts d <sub>3</sub> respectively. V 1. d <sub>1</sub> > d <sub>2</sub> > d <sub>1</sub> 2. d <sub>1</sub> > d <sub>2</sub> < d <sub>1</sub> 3. d <sub>1</sub> < d <sub>2</sub> > d <sub>1</sub>	one by one in three liquids ha s of their volumes outside the Which of the following statem 3.	ving different densities. The o liquid surface in liquids of der ent is correct?	bject floats with nsities d, d <sub>2</sub> and	1 Mark

**Q7.** Why does a mug full of water feel lighter inside water:

A Because of Buoyant forceB Because of Gravitational forceC Because of an increase in velocityD Because of its kinetic energy

**Q8.** If suddenly the gravitational force of attraction between earth and satellite revolving around it becomes zero, then the satellite will:

- A Continue to move in its orbit with same velocity
- **B** Move tangential to the original orbit with the same velocity

**D** Move towards the earth

4.  $d_1 < d_2 < d_{3.}$ 

**Q9.** The school bags are generally provided with the broad strips because:

**C** Becomes sationary in its orbit

1 Mark

1 Mark

1/9

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It will spread the force of the	bag over the large area of t	the shoulder of the child produ	ucing less pressure.	
D	iong the students to carry ti	le bags with wide strips.		
It will spread the force of the	bag over the small area of	the shoulder of the child prod	ucing less pressure.	
Q10. Apparent loss of weigh	t of a body when immersed	in a liquid can be explained o	n the basis of:	1 Mar
A Molecular theory	<b>B</b> Electron theory	<b>C</b> Archimedes' principle.	<b>D</b> Bernoulli's principle.	
<b>Q11.</b> An earth-like planet ha its surface will be:	s a radius equal to double t	he earth's radius. The accelera	ation due to gravity on	1 Mai
A g	<b>B</b> $\frac{g}{2}$	$C \frac{g}{4}$	$D g^2$	
Q12. The relative densities of floated in all these liqu submerged under the l	of four liquids P, Q, R and S a ids, one by one. In which lic iquid?	are 1.26, 1.0, 0.84 and 13.6 res quid the object will float with i	pectively. An object is ts maximum volume	1 Mar
ΑΡ	BQ	<b>C</b> R	D S	
Q13. The density of water is statements is incorrect	1000kg/m <sup>3</sup> and the density ?	v of copper is 8900kg/m <sup>3</sup> . Whi	ch of the following	1 Mar
$\mathbf{A} = \frac{\text{The density of a cer}}{\text{The density of the s}}$ $\mathbf{C} = \frac{\text{The weight of a cert}}{\text{The weight of the set}}$	$\frac{\text{tain volume of copper}}{\text{ame volume of water}} = 8.9$ $\frac{\text{ain volume of copper}}{\text{ame volume of water}} = 8.9$	$\mathbf{B} = \frac{\text{The volume of a certain}}{\text{The volume of the sam}}$ $\mathbf{D} = \frac{\text{The mass of a certain v}}{\text{The mass of the same v}}$	$\frac{n \text{ mass of copper}}{n \text{ mass of water}} = 8.9$ $\frac{1}{\text{volume of copper}}{1} = 8.9$	
Q14. The weight of an objec	t:			1 Mar
<b>A</b> Is the quantity of the	ne matter it contains	<b>B</b> Refers to its in	ertia	
<ul><li>C Is the same as its m</li><li>D Is the force with w</li></ul>	ass but is expressed in diffe nich it is attracted towards t	rent unit he earth		
Q15. Write the approximate	weight of a body of mass 5	kg:		1 Mar
<b>A</b> 50N	<b>B</b> 5N	<b>C</b> 0.5N	<b>D</b> 50000N	
<b>Q16.</b> The value of acceleration	on due to gravity:			1 Mar
<ul><li>A Is same on equator</li><li>D Increases from pole</li></ul>	and poles. <b>B</b> Is leas	t on poles. <b>C</b> Is	least on equator.	
Q17. An object is put in thre	e liquids having different de	ensities, one by one. The objec	t floats with $\frac{1}{9}, \frac{2}{11}$	1 Mar
and $\frac{3}{7}$ parts of its volur	ne outside the surface of lic	quids of densities $d_1$ , $d_2$ and $d_3$	respectively. Which	
of the following is the	correct order of the densitie	es of the three liquids ?		
<b>A</b> $d_1 > d_2 > d_3$	<b>B</b> $d_2 > d_3 > d_1$	<b>C</b> $d_1 < d_2 < d_3$	<b>D</b> $d_3 > d_2 > d_1$	

Q18. The mass of a body on earth is 60kg. Its mass on moon will be:

A 360kg B 60kg C 10kg D 1/6 kg

**Q19.** A ball weighing 4kg of density 4000kg m<sup>-3</sup> is completely immersed in water of density103kg m<sup>-3</sup>. What **1 Mark** will be the buoyant force acting on it?

A 100N B 10N C 1600N D 16N

**Q20.** Buoyant force is directed:

A Upwards B Downwards C Sideways D At Il directions

**Q21.** Three spheres have radii 1cm, 2cm and 3cm, respectively. Which sphere exerts maximum pressure on earth?

A First B Second C Third D All equal

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1 Mark

1 Mark

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<b>Q22.</b> The mass of moon is about 0.012 times that of the earth and its diameter is about 0.25 times that of earth. The value of G on the moon will be:				
A Same as that o	n the earth.	<b>B</b> About one-fifth of that	it on the earth.	
<b>C</b> About one-sixtl	h of that on the earth.	<b>D</b> About one-fourth	of that on the earth.	
<b>Q23.</b> Four balls, A, B, C a immersed complet	and D displace 10mL, 24mL, 15r ely. The ball which will undergo	nL and 12mL of a liquid r the maximum apparent	espectively, when loss in weight will be:	1 Mark
<b>A</b> A	<b>B</b> B	<b>c</b> c	<b>D</b>	
Q24. The universal Law	of Gravitation explained:			1 Mark
A The tides due t	o moon and the sun.	<b>B</b> The force that bi	nds us to the earth.	
<b>C</b> The motion of t	the planets around the sun.	<b>D</b> All of t	ne above.	
<b>Q25.</b> Which scientist are	e related to gravitation ?			1 Mark
A Newton	<b>B</b> je purkinje	<b>C</b> Galileo	D Haeckel	
<b>Q26.</b> Why is relative der	nsity calculated with respect to	the density of water part	icularly at 4°C?	1 Mark
<ul><li>A Because water</li><li>C Water starts tu</li></ul>	displays Archimedes principle a rning into ice at 4°C	nt 4°C <b>B</b> Water ha <b>D</b> All of the a	s the highest density at 4°C bove	
<b>Q27.</b> Which of the follow	wing has highest relative density	/:		1 Mark
A Water	<b>B</b> Oil	C Mercury	<b>D</b> Glass	
<b>Q28.</b> If the weight of an object in air and a dense liquid are $W_a$ and $W_l$ respectively, then upthrust:				
A W <sub>a</sub> - W <sub>l</sub>	$\mathbf{B} \ \mathbf{U} = \mathbf{W}_{\mathbf{I}} + \mathbf{W}_{\mathbf{a}}$	$\mathbf{C} = \mathbf{W}_{I} - \mathbf{W}_{a}$	<b>D</b> $U = 2W_1$	
Q29. A boy is whirling a	stone tied with a string in a hor	izontal circular path as s	nown in the following	1 Mark



be:

If the string breaks the stone:

**A** Will move along a straight line towards the centre of the circular path.

**B** Will move along a straight line the tangential to the circular path.

**C** Will move along a straight line perpendicular to the circular path away from the boy.

**D** Will continue to move in the circular path.

Q30. If the mass of a body is M on the surfrace of the earth, then its mass on the surface of the moon will

**C** M + 6

**D** Zero

1 Mark

Α	M	BM

6

- **Q31.** Any solid will float in water if its relative density is:
  - A Greater than unity **B** Equal to unity **C** Less than unity **D** Infinite
- **Q32.** Newton universal law of gravitation applies to:

A Small bodies onlyB Planets onlyC Both small and big bodiesD Only valid for solar system

Q33. The weight of an object at the centre of the earth of radius R is:

A Zero. B R times the weight at the surface of the earth. C Infinite. D  $\frac{1}{R^2}$  times the weight at the surface of the earth.

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Q34.	The correct equation to	show relation between G	i and g is:		
	<b>A</b> G = Mm/d <sup>2</sup>	<b>B</b> G = Mm/R <sup>2</sup>	<b>C</b> G = G Mm/d <sup>2</sup>	<b>D</b> G = Gm/R <sup>2</sup>	1 Mark
Q35.	he upward force exerted	d by a liquid on an object	is called?		1 Mark
	A Upward force	<b>B</b> Top force	C Buoyant force	<b>D</b> Fluid force	
Q36.	An apple falls from a tre $F_1$ is the magnitude of t exerted by the apple on	e because of the gravitati he force exerted by the ea the earth, then:	ional attraction between the $\epsilon$ arth on the apple and $F_2$ is the	earth and the apple. If e magnitude of the force	1 Mark
	<ul> <li><b>A</b> F<sub>1</sub> is very much grea</li> <li><b>D</b> F<sub>1</sub> is only a little grea</li> </ul>	ter than $F_2$ <b>B</b> $F_2$ is ve ater than $F_2$	ry much greater than $F_1$	<b>C</b> $F_1$ and $F_2$ are equal	
Q37.	Which of the following	physical quantities has no	unit:		1 Mark
	A Relative density	<b>B</b> Density	C Pressure	<b>D</b> Thrust	
Q38.	Archimedes' principle st	tates that the buoyant for	ce applied to an object:		1 Mark
	<ul> <li>A Is greater the weigh</li> <li>B Is equal to the weigh</li> <li>C Is less than the weigh</li> </ul>	t of the fluid the object di nt of the fluid the object c ht of the fluid the object o	splaces lisplaces displaces <b>D</b> Is zer	0	
Q39.	When an object moves earth only, the object is	with a constant accelerati said to have:	on, under the influence of for	rce of gravitation of the	1 Mark
	A Free fall	<b>B</b> Accelerated fall	<b>C</b> Projectile motion	<b>D</b> Constant velocity	
Q40.	Gravitational force betw changing distance betw	veen two objects is 10N. If een them, then the gravit	f masses of both objects are c ational force would become:	loubled without	1 Mark
	<b>A</b> 2.5N	<b>B</b> 20N	<b>C</b> 40N	<b>D</b> 10N	
Q41.	Choose the correct defi	nition of Universal law of	gravitation:		1 Mark
	Α				
	Every object in the universe the distance between the <b>B</b>	erse attracts every other one and inversely proportion of the second s	object with a force which is pr tional to their masses.	oportional to the product of	
	Every object in the Univ square of the distance b C	erse attracts every other other between them and propor	object with a force which is in tional to the product of their	versely proportional to the masses.	
	Every object in the universal and inversely proportion <b>D</b> Optaion A or C	erse attracts every other on a second s	object with a force which is pr nce between them.	oportional to their masses	
Q42.	A rectangular wooden b This wooden block is ke the correct statement a	block has length, breadth a pt on ground in three diff bout the pressure exerted	and height of 50 cm, 25cm an erent ways, turn by turn. Whi I by this block on the ground?	d 10cm, respectively. ch of the following is	1 Mark
	A The maximum press	sure is exerted when the lo	ength and breadth form the b	ase.	

- **B** The maximum pressure is exerted when length and height form the base.
- **C** The maximum pressure is exerted when breadth and height form the base.
- **D** The minimum pressure is exerted when length and height form the base.

**Q43.** If earth comes closer to sun by  $\frac{3}{4}$  th of the present distance, then the year of earth consists of how

1 Mark

1 Mark

#### many days?



A 45.625 days B 25.625 days C 50.625 days D 60.625 days

### **Q44.** The value of acceleration due to gravity of earth:

A is the same on equator and poles. B is the least on poles. C is the least on equator.

**D** Increases from pole to equator.

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<b>Q45.</b> The law of gravitation	on gives the gravitational for	rce between:		1 Mark
<ul><li>A The earth and a</li><li>D Any two charged</li></ul>	point mass only. <b>B</b> The ea d bodies only.	arth and the sun only. <b>C</b>	Any two bodies having some mass.	
<b>Q46.</b> A boy is whirling a s	tone tied with a string in an	horizontal circular path. I	f the string breaks, the stone:	1 Mark
<ul> <li>A Will continue to</li> <li>B Will move along</li> <li>C Will move along</li> <li>D Will move along</li> </ul>	move in the circular path. a straight line towards the a straight line tangential to a straight line perpendicula	centre of the circular path the circular path. ar to the circular path awa	ı. ıy from the boy.	
Q47. Which among the fo	ollowing is not the property	of weight:		1 Mark
A It is the force of C It is variable and	gravity acting on a body I changes with the change ir	<b>B</b> It is measur n acceleration due to grav	ed by a spring balance ity <b>D</b> Its S.I unit is kg	
Q48. What is known as th	nrust:			1 Mark
<ul><li>A Force orthogona</li><li>D None of these</li></ul>	al to an area <b>B</b> Force	acting along an area	<b>C</b> Any force	
Q49. The universal law of	f gravitation was postulated	by:		1 Mark
A Copernicus	<b>B</b> Newton	<b>C</b> Galileo	<b>D</b> Archimedes	
<b>Q50.</b> What will be the we	eight of a person on earth, w	vho weights 9N on the mo	pon?	1 Mark
<b>A</b> 3N	<b>B</b> 15N	<b>C</b> 45N	<b>D</b> 54N	
Q51. Specific gravity of the	ne body is numerically equa	l to of the body	:	1 Mark
<ul><li>A Apparent weigh</li><li>D Thermal capacit</li></ul>	t in water <b>B</b> Densit Y	ty	C Relative density	
Q52. A force of 50N is ap	plied on a nail of area 0.001	. cm <sup>2</sup> .Then the thrust appl	ied is:	1 Mark
<b>A</b> 50N	<b>B</b> 100N	<b>C</b> 0.05N	<b>D</b> 10N	
<b>Q53.</b> When a body is take	en from the earth to the mo	on:		1 Mark
<ul><li>A Its weight increa</li><li>D It becomes com</li></ul>	ases <b>B</b> Its weight pletely weightless	decreases C It	s weight remains unchanged	
Q54. The force around the Sun.	e is responsible for providin	ng the necessary centripet	al force to planets moving	1 Mark
A Electrical	<b>B</b> Gravitational	C Magnetic	<b>D</b> None	
<b>Q55.</b> Four students A, B, Everest and Shimla.	C and D find the acceleratio The acceleration due to gra	n due to gravity at the top wity is the least:	o of Ooty, Nainital, Mount	1 Mark
<b>A</b> At Ooty since it <b>C</b> At Nainital as on	is the highest. Ily latitude has the effect an	<b>B</b> At Mount Everest and not height of the peak.	as it is the highest. <b>D</b> At Shimla as it is the coldest	

## A Only solidsB Only liquidsC All fluidsD All the above

**Q57.** Distance between the centres of two stars is 10a. The masses of these stars are M and 16M and their radii are a and 2a respectively. A body of mass m is fired straight from the surface of the larger star towards the smaller star. The minimum initial speed for the body to reach the surface of smaller star

С

D



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$\frac{2}{2}$	<u>3</u>	5GM	2 5GM 3	GM	
3 1	a 2 <b>1</b>	8a 3	$\beta \sqrt{a}$ 2	N a	
Q58.	Communication satellite	es move in 44400km arou	nd the earth. Assume that t	he only force acting on it	1 Mark
	is that due to the earth,	then what is acceleration	of such a satellite? (Take, r	nass of earth = $6 \times$	
	10 <sup>24</sup> kg).				
	<b>A</b> 0.3m/ s <sup>2</sup>	<b>B</b> 0.2m/ s <sup>2</sup>	<b>C</b> 0.4m/ s <sup>2</sup>	<b>D</b> 0.5m/ s <sup>2</sup>	
Q59.	The total force exerted	by a body perpendicular t	o a surface is called.		1 Mark
	A Pressure	<b>B</b> Thrust	C Impulse	<b>D</b> Collision	
Q60.	The gravitational attract	ion between the two bod	ies increases when their ma	asses are:	1 Mark
	A Reduced and distan	ce is reduced	B Increased and dista	nce is reduced	
	<b>C</b> Reduced and distant	ce is increased	<b>D</b> Increased and dista	nce is increased	
Q61.	The force of gravitation	exists:			1 Mark
	A Only at the surface of	of the earth <b>B</b> Every	where in the universe	<b>C</b> Only inside the earth	
	<b>D</b> Only at the surface of	of the moon			
002	A tank Em is high filled.	with water and then is fill	ad to the ten with all of dow	with 0.05 g/am <sup>3</sup> Those	1 DAoula
Q62.	A tank 5m is nigh filled w	with water and then is hill to those liquids is:	ed to the top with oil of den	isity 0.85g/ cm <sup>2</sup> . Then	
	bottom of the tank, due			2	
	A 1.85dyne/ cm <sup>2</sup>	<b>B</b> 89.25dyne/ cm <sup>2</sup>	<b>C</b> 462.5dyne/ cm <sup>2</sup>	<b>D</b> 500dyne/ cm <sup>2</sup>	
063.	Thrust is a guantity:				1 Mark
Q00.	A Mastar	D. Caslar		D. Coult cou	2 1001
	A vector	B Scalar	C Both A and B	<b>D</b> Can't say	
Q64.	In the relation F = G Mn	n/ do, the quantity G:			1 Mark
	A Depends on the valu	ue of g at the place of obs	ervation.		
	<b>B</b> Is used only when the	ne earth is one of the two	masses. <b>C</b> Is greatest	at the surface of the earth.	
	<b>D</b> Is universal constant	t of nature.			
065.	Which of the following i	s involved in buoyancy:			1 Mark
4001		<b>D</b> Liquide	C Casas	<b>D</b> Dath D and C	2
	A Solias	<b>B</b> Liquias	<b>C</b> Gases	D Both B and C	
Q66.	Moon is revolving in a c	ircular orbit with a unifor	m velocity V0. If the gravitat	tional force	1 Mark
	suddenly disappears, th	e moon will.			
	A Continue to move ir	the same orbit	<b>B</b> Move with a velocity V0 t	angentially to the orbit	
	<b>C</b> Fall down freely		<b>D</b> Ultimately comes to	o rest	
Q67.	The force that keeps the	e body in a circular path a	nd is acting towards the cer	iter is called?	1 Mark
	A Central force	<b>B</b> Frictional Force	<b>C</b> Centripetal Force	<b>D</b> A and C	
0.00				int 2	
Q68.	which among the follow	ving is a wrong differentia	tion between mass and we	gnt ?	1 Mark

A Mass is amount of matter in a body whereas weight is the measure of force acting on body.

**B** Si unit of mass is kg whereas SI unit of weight is newton.

**C** Mass has both magnitude and direction whereas weight has only direction.

**D** Mass can easily be measured by beam balance whereas weight can be measured by spring balance.

**Q69.** Which of the following statement is true:

**A** G is same at all places on the surface of earth. **B** G has its maximum value at the equator.

**C** G is less at the earth's surface than at a height above it or a depth below it.

**D** G is greater at the poles than at the equator.

**Q70.** The S.I. units of thrust is same as that of:

A Force/Area B Force x Area C Force D None of these

**Q71.** The force of attraction between two unit point masses separated by a unit distance is called:

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<ul><li>A Gravitational potential</li><li>D Universal gravitational con</li></ul>	<b>B</b> Acceleration due stant	to gravity <b>C</b> Gravit	ational field	
<b>Q72.</b> From the following 3 soli	ids of the same shape and	l same volume which one h	as the highest inertia:	1 Mark
A Steel	B Wood	<b>C</b> Aluminium	<b>D</b> None of the above	
<b>Q73.</b> Does the force of gravita	tion exist between two as	stronauts in space:		1 Mark
<ul><li>A Yes, always</li><li>D Only on a planet</li></ul>	<b>B</b> Never	<b>C</b> Only un	der special circumstances	
Q74. Two objects of different	masses falling freely near	the surface of the moon w	ould:	1 Mark
A Have same velocities	at any instant.	<b>B</b> Have different a	accelerations.	
<b>C</b> Experience forces of	same magnitude.	<b>D</b> Undergo a chang	e in their inertia.	
Q75. Weight is:				1 Mark
<ul><li>A Measured by spring I</li><li>D A scalar quantity</li></ul>	balance <b>B</b> Measure	ed by beam balance 🛛 🤇	C Measured in kg	
Q76. The upward force acting	on the body immersed in	a fluid is called:		1 Mark
A Equilibrium force	<b>B</b> Buoyant force	<b>C</b> True weight	<b>D</b> Net force	
<b>Q77.</b> Which of the following is	s true for relative density?			1 Mark
<ul><li>A It is a ratio of density</li><li>C Relative density wate</li></ul>	of an object to that of w er is 1	aterB It hasD All of the above	no unit	
<b>Q78.</b> Two particles are placed unchanged, the mass of them will become:	at some distance from ea each of the two particles	ich other. If, keeping the dis is doubled, the value of gra	tance between them vitational force between	1 Mark
A $\frac{1}{4}$ times	<b>B</b> $\frac{1}{2}$ times	<b>C</b> 4 times	<b>D</b> 2 times	
<b>Q79.</b> A body is floating in wate body?	er with $\frac{2}{3}$ of its volume be	low the surface of water. W	/hat is the density of	1 Mark
<b>A</b> 666.7kg/m <sup>3</sup>	<b>B</b> 777.6kg/ m <sup>3</sup>	<b>C</b> 656.7kg/m <sup>3</sup>	<b>D</b> 876.6kg/ m <sup>3</sup>	
<b>Q80.</b> Any solid will sink in wat	er, if its relative density is	:		1 Mark
A less than unity	<b>B</b> Equal to unity	<b>C</b> Greater than unity	D zero	
<b>Q81.</b> The gravitational force b	etween two bodies is:			1 Mark
<ul><li>A Repulsive at large dis</li><li>D Repulsive at short dis</li></ul>	stances <b>B</b> Attractive	e at all places <b>C</b> Att	ractive at short distances	
<b>Q82.</b> Law of gravitation gives t	the gravitational force bet	ween:		1 Mark
A The earth and a poin	t mass only. <b>B</b> The ear	th and Sun only. <b>C</b> Any ty	wo bodies having some mass.	

#### **D** Two charged bodies only.

**Q83.** The value of g on moon in 1/6 th of the value of g on earth. A man can jump 1.5m high on the earth. He can jump on the moon up to a height of:

 A 9m
 B 7.5m
 C 6m
 D 4.5m

 Q84. what is the value of g ?
 A 8.9m/s<sup>-2</sup>
 B 9.3m/s<sup>-2</sup>
 C 9.8m/s<sup>-2</sup>
 D 8.66m/s<sup>-11</sup>

**Q85.** An object having mass equal to 350g occupies 200cm<sup>3</sup> of the space. When this object is thrown into a river what will be the condition of this object there? (Density of water = 1g/ cm<sup>3</sup>)

A It will float on the surface of water.B It will float fully submerged in the liquid.D It will float partially submerged in the liquid.

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Q86.	Mass is a	quantity and weight i	s a quantity:			
	A Scalar, vecto	r <b>B</b> Vector, so	alar <b>C</b> Tensor, so	calar	<b>D</b> Vector, vector	1 Mark
Q87.	The earth and th moon with a for	ne moon are attracted to ce that is:	each other by gravitationa	al force. The ea	arth attracts the	1 Mark
	A More than the	nat exerted by the moor	n. <b>B</b> Same as	s that exerted	by the moon.	
	<b>C</b> Less than tha	at exerted by the moon.	<b>D</b> Not related	l to that exerte	d by the moon.	
Q88.	The value of qua	antity 'G' in the law of gr	avitation:			1 Mark
	A Depends on	mass of earth only	B Depends	on radius of ea	arth only	
	<b>C</b> Depends on	both mass and radius of	earth <b>D</b> Is independ	dent of mass a	nd radius of the earth	
Q89.	The atmosphere	consisting of a large nu	mber of gases is held to the	e earth by:		1 Mark
	A Winds.	B Clouds.	<b>C</b> Earths ma	agnetic field.	<b>D</b> Gravity.	
Q90.	The force of attr	action between two uni	t point masses separated b	y a unit distan	ce is called:	1 Mark
	A Gravitational D Universal gra	l potential. <b>B</b> Act avitational constant.	celeration due to gravity.	<b>C</b> Gravita	ational field strength.	
Q91.	If the weight of a	a body is 6N on the moc	n, what will it be on the ea	arth:		1 Mark
	<b>A</b> 6N	<b>B</b> 36N	<b>C</b> 12N		<b>D</b> 1N	
Q92.	Suman has two o ground earlier th	equal masses. He drops nan the other by altering	them from the same heigh g the:	t. He can make	e one to reach the	1 Mark
	A Density.	<b>B</b> Surface a	rea. <b>C</b> Volume.		<b>D</b> Cannot be altered.	
Q93.	The force of grav	vitation between two bo	dies does not depend upo	n:		1 Mark
	<ul><li>A The separation</li><li>D The sum of t</li></ul>	on between them I heir masses	<b>3</b> The gravitational constan	nt <b>C</b> The p	product of their masses	
Q94.	Which off the fo	llowing statement is cor	rect about acceleration due	e to gravity:		1 Mark
	A Value of g va	ries from place to place	. <b>B</b> G is mo	re at equator t	han at pole.	
	<b>C</b> G is equal at	equator and pole.	<b>D</b> G is less at the	e equator than	at the pole.	
Q95.	What is the relat	tion between thrust and	pressure?			1 Mark
	A Pressure dire C No relation	ectly proportional to thr	ust <b>B</b> Pressure i <b>D</b> None	ndirectly prop	ortional to thrust	
Q96.	An object is put	in three liquids having d	ifferent densities, one by o	one. The object	floats with $\frac{1}{9}$ , $\frac{2}{11}$	1 Mark
	and $\frac{1}{7}$ parts of it	s volume outside the su	rface of liquids of densities	$\mathbf{s}  \mathbf{d_1},  \mathbf{d_2} \text{ and } \mathbf{d_3}$	respectively. Which	
	of the following	is the correct order of t	ne densities of three liquids	s?		
	<b>A</b> $d_1 > d_2 > d_3$	<b>B</b> $d_2 > d_3 >$	$d_1$ <b>C</b> $d_1 < d_2 <$	d <sub>3</sub>	<b>D</b> $d_3 > d_2 > d_1$	

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**Q97.** According to one of the Kepler's laws of planetary motion:

**A** 
$$r^2 \propto T^3$$
 **B**  $r \propto T^2$  **C**  $r^3 \propto T^2$  **D**  $r^3 \propto \frac{1}{T^2}$ 

**Q98.** The SI unit of thrust is:

A N B dyne C kgwt D N<sup>m-2</sup>

Q99. The gravitational force between two objects is F. If masses of both objects are halved without<br/>changing distance between them, then the gravitational force would become:A  $\frac{F}{4}$ B  $\frac{F}{2}$ C FD 2F

**Q100.** Two objects of different masses falling freely near the surface of moon would:

A Have same velocities at any instant. B Have different accelerations.

**C** Experience forces of same magnitude.

**D** Undergo a change in their inertia.