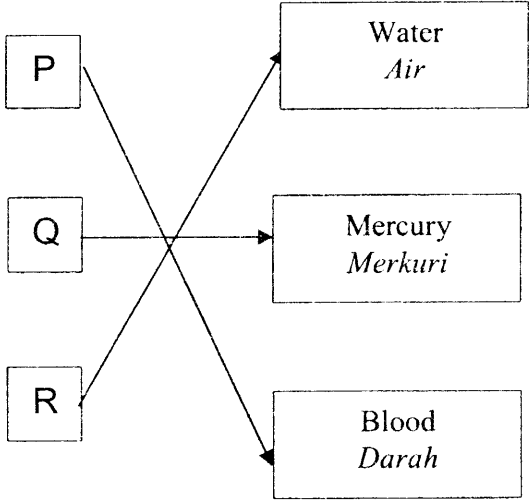


**TRIAL EXAM 2011
MARKING SCHEME
SCIENCE FORM 3
PAPER 1 – OBJECTIVE**

1	B
2	A
3	D
4	A
5	B
6	D
7	C
8	C
9	A
10	C
11	A
12	A
13	C
14	B
15	C
16	C
17	C
18	A
19	B
20	A

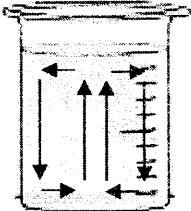
21	D
22	B
23	B
24	C
25	B
26	C
27	A
28	D
29	D
30	B
31	C
32	B
33	D
34	C
35	D
36	B
37	A
38	D
39	C
40	D

MARKING SCHEME PAPER 2 – STRUCTURAL QUESTIONS

No. soalan	Answer	Marks	Total marks
1	a) Able to label		
	P : Mixture/ Campuran	1	3
	Q: Element / Unsur	1	
	R: Compound / Sebatian	1	
	b) Able to match		
		1	3
		1	
		1	
		TOTAL	TOTAL
		6	6

2	a) Able to name the support system		
	- Endoskeleton <i>Rangka dalam</i>	1	1
	b) Able to state support system		
	Sample answer		
	Buoyancy of water//water buoyancy <i>(Daya) keapungan air</i>	1	1
	Accept any suitable answer		
	c) Able to state the function		
	1. Support the body weight <i>Menyokong berat badan</i>		
	2. Enable movement <i>Membolehkan pergerakan</i>	1	
	3. Protect the internal organ <i>Melindungi organ dalaman</i>		2
	4. Give body shape <i>Memberi bentuk badan</i>	1	
	Note -- any 2 answers		
	c) Able to state other type of support system		
	1. Exoskeleton <i>Rangka luar</i>	1	
	2. Hydrostatic skeleton <i>Rangka hidrostatik</i>	1	2
		TOTAL	TOTAL
		6	6

3	a) Able to state what is growth		
	(Growth) is the change in size/ shape/number of cell / body function. (Pertumbuhan) adalah perubahan dari saiz/ bentuk / bilangan sel / fungsi badan	1	1
	b) Able to state the stage		
	P / Infancy P / Bayi Note : do not accept age	1	1
	c) Able to state the stage		
	R / adolescence R / Remaja Note : do not accept age	1	1
	d)(i) Able to name the phase		
	Fertile (phase) (Fasa) subur//fasa kesuburan	1	1
	(ii) Able to state what happen		
	- Ovulation // ovary releases ovum // ovum is released by ovary // ovary ovulate Pengovulan // ovari membebaskan ovum // ovum dibebaskan oleh ovari // ovari mengovulasi	1	1
	(e) Able to circle the date		
	30 August	1	1
		TOTAL	TOTAL
		6	6

4	a)(i) Able to state the method	1	1
	Convection <i>Perolakan</i>		
	(ii) Able to explain the method of heat flow	1	
	Hot water (at the bottom become less dense and) rises up. <i>Air panas (dibawah menjadi kurang tumpat dan) naik</i>		2
	Colder water (at the top is denser and) moves down <i>Air sejuk (di atas lebih tumpat) turun ke bawah</i>	1	
	(iii) Able to draw the convection current in the beaker	1	1
			
	Note: Accept if student draw only 1 cycle or draw outside the beaker		
	b) Able to explain	1	
	Hot air (in the house) rises and moves out through ventilation hole <i>Udara panas dalam rumah naik dan keluar melalui sisip angin</i>		2
	Cool air from outside (of the house) blows in through the window <i>Udara sejuk dari luar (rumah) masuk ke dalam melalui tingkap.</i>	1	
		TOTAL	TOTAL
		6	6

5	<p>a) Able to give reason</p> <p>- (He) applies a force to move (the box) // use force to move (the box) // the box moves when (it is) pushed</p> <p>- (Dia) mengenakan daya untuk menggerakkan (kotak)// daya digunakan untuk menggerakkan kotak // kotak bergerak apabila ditolak</p> <p>Note : accept as long as the answer shows there is force and distance involved</p> <p>b) Able to calculate work done</p> <p>= 400 N x 2 m</p> <p>= 800 J</p> <p>Note : reward 1 mark for correct transfer of data reward 1 mark for correct answer with correct unit</p> <p>c)(i) Able to mark the correct direction</p> <p style="text-align: center;">←</p> <p>Note : accept if marks outside the box</p> <p>(ii) Able to state suggest the way</p> <p>1. (Put / Use) roller (underneath) (letak/ guna) penggolek (dibawah)</p> <p>2. (Put) the box in the trolley/ wheel (Letak) kotak di atas troli/roda</p> <p>Note : Put oil on the floor is not practical – reject.</p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p>	<p>1</p> <p>2</p> <p>1</p> <p>1</p> <p>1</p>
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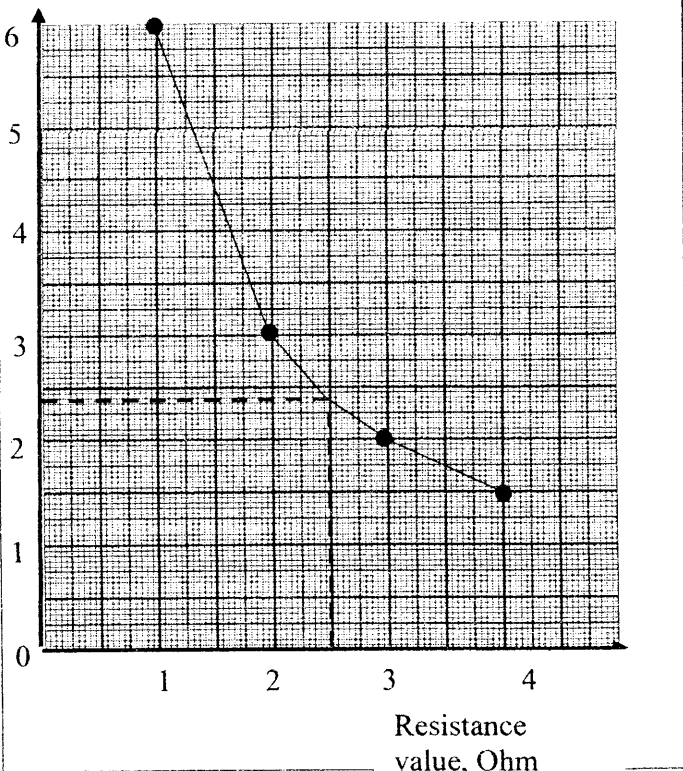
	<p>iii) Able to give reason</p> <p>Sample answer</p> <p>1. Frictional force (between the surfaces) is lessen /lower <i>Daya geseran (antara permukaan) berkurang /menjadi kecil</i></p> <p>2. Reduce the frictional force between the surface <i>Mengurangkan daya geseran antara permukaan</i></p> <p>Note : Reject if answer mention disadvantage of frictional force e.g produces heat, sound, slower the movement.</p> <p>d)(i) Able to state what happen</p> <p>(the man) slip // fall <i>(Orang) tergelincir // jatuh</i></p> <p>Note : reject 'cedera'</p> <p>(ii) Able to give reason</p> <p>- Wet floor reduces/ lower frictional force (between floor and sole of the shoes) <i>Lantai basah mengurangkan/ merendahkan daya geseran (antara lantai dan tapak kasut)</i></p> <p>Note : accept any suitable reason Reject if - no frictional force - frictional force is not mention - slippery/ licin (not scientific explanation)</p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>TOTAL</p> <p>8</p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>TOTAL</p> <p>8</p>
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6	a)(i) Able to state the difference		
	(Plant in pot) B wilt faster (than in A) (<i>Pokok dalam pasu) B lebih cepat layu (daripada A)</i>) Vice versa	1	1
	(ii) Able to give reason		
	1. B has more leaves / more stoma <i>B mempunyai lebih banyak daun / lebih banyak stoma</i> Vice versa	1	1
	2. B loss more water because more leaves/ stoma <i>B kehilangan lebih banyak air kerana mempunyai lebih banyak daun/stoma</i> Vice versa		
	3. Transpiration in B is higher (than A) <i>Transpirasi dalam B lebih tinggi (dalam A)</i> Vice versa		
	Note : any one answer		
	b)(i) Able to name the structure	1	1
	Stoma		
	(ii) Able to explain the activity of stoma.		
	The size of stoma decreased / smaller <i>Saiz stoma berkurangan lebih kecil</i>	1	2
	Less water is lost / tersejat // low rate of transpiration // <i>Kurang air dihilangkan/ tersejat // kadar transpirasi rendah</i>	1	
	c) Able to give factor		
	1. Light intensity <i>Keamatan cahaya</i>		
	2. Temperature (of surrounding) / heat <i>Suhu (sekitar) / haba</i>	1	1

	<p>3. Moving air / <i>wind</i> <i>Udara bergerak / angin</i></p> <p>4. Humidity of air <i>Kelembapan udara</i></p> <p>Any one factor</p>		
	<p>(d) Able to give importance of transpiration</p> <p>1. Transport water and mineral salt up <i>Mengangkut air dan garam mineral ke Atas</i></p> <p>2. Remove / excrete excess water <i>Menyingkirkan / mengumuhkan air berlebihan</i></p> <p>3. Cool the plant <i>Menyejukkan tumbuhan</i></p> <p>4. Help to make cell turgid / maintain turgidity of cell <i>Membantu sel menjadi segar // mengekalkan kesegahan sel</i></p>	1	1
	<p>(c) Able to explain</p> <p>Roots can absorb water in the soil (to replace the water loss due to transpiration)// wet soil contain/ supply water (for roots to absorb) <i>Akar boleh menyerap air dalam tanah (untuk menggantikan air yang terhilang melalui transpirasi) // tanah basah mengandungi air (yang boleh diserap akar.)</i></p>	1	1
	<p>Accept any suitable answer Reject - to prevent wilting (redundant)</p>	TOTAL	TOTAL
		8	8

7	a)(i) Able to state the difference in the position		
	P : Floats (in water) <i>Terapung/ timbul (dalam air)</i>	1	2
	Q : Sinks (in water) <i>Tenggelam (dalam air</i>	1	
	a)(ii) Able to classify		
	Less dense than water – P Denser than water - Q and R	1	2
	a)(iii) Able to state the inference	1	
	(An) object (will) float because it is less dense than water // (an) object (will) sink because it is denser than water <i>(Suatu) objek (akan) terapung kerana ia kurang tumpat daripada air // (suatu) objek (akan) tenggelam kerana ia lebih tumpat daripada air.</i>	1	1
	a)(iv) Able to state the relationship		
	When/ If density of an object is higher than density of water, the object sinks	1	1
	Vice versa <i>Apabila / Jika ketumpatan objek lebih tinggi daripada ketumpatan air, maka ia akan tenggelam.</i> <i>Atau sebaliknya.</i>		
	(b) Able to predict		
	Cork - floats <i>Gabus - terapung/ timbul</i>	1	2
	Wood - sinks <i>Kayu - tenggelam</i>	1	
		TOTAL	TOTAL
		8	8

8	<p>a)(i) Able to state the difference</p> <p>1. Bulb in 8.1(b) is brighter than in 8.1(a) <i>Mentol dalam 8.1(b) lebih cerah/terang daripada dalam 8.1(a)</i></p> <p>Vice versa</p> <p>2. Bulb in 8.1(b) bright, bulb in 8.1(a) dim <i>Mentol dalam 8.1(b) cerah/ terang, mentol 8.1(a) malap/kurang terang/kurang cerah</i></p> <p>3. Bulb in 8.1(b) dim but bulb in 8.1(a) dimmer <i>Mentol dalam 8.1(b)malap tetapi mentol dalam 8.1(b) lebih malap/semakin malap</i></p> <p>(ii) Able to state inference</p> <p>The bulb is brighter because the resistance (in the circuit) is less/lower // The bulb is dimmer because the resistance (in the circuit) is more/higher <i>Mentol lebih terang/cerah kerana rintangan (dalam litar) kurang/rendah// Mentol kurang terang/cerah kerana rintangan (dalam litar) tinggi</i></p> <p>(iii) Able to state the hypothesis</p> <p>-The higher / more the resistance (in the circuit) the dimmer the bulb <i>Semakin tinggi/banyak rintangan (dalam litar) semakin malap nyalaan mentol</i></p> <p>- If / When the resistance (in the circuit) is higher / more, so the bulb is dimmer <i>Jika / apabila rintangan (dalam litar) meningkat/ bertambah maka nyalaan mentol semakin malap.</i></p> <p>Vice versa</p> <p>- The higher the resistance (in the circuit) the lower the current.</p>	1	1
	<p>The bulb is brighter because the resistance (in the circuit) is less/lower // The bulb is dimmer because the resistance (in the circuit) is more/higher <i>Mentol lebih terang/cerah kerana rintangan (dalam litar) kurang/rendah// Mentol kurang terang/cerah kerana rintangan (dalam litar) tinggi</i></p>	1	1
	<p>(iii) Able to state the hypothesis</p> <p>-The higher / more the resistance (in the circuit) the dimmer the bulb <i>Semakin tinggi/banyak rintangan (dalam litar) semakin malap nyalaan mentol</i></p> <p>- If / When the resistance (in the circuit) is higher / more, so the bulb is dimmer <i>Jika / apabila rintangan (dalam litar) meningkat/ bertambah maka nyalaan mentol semakin malap.</i></p> <p>Vice versa</p> <p>- The higher the resistance (in the circuit) the lower the current.</p>	1	1

	<p><i>Semakin tinggi/banyak rintangan (dalam litar) semakin rendah/kecil arus.</i></p> <p>(b)(i) Able to state the variables</p> <p>Manipulated variable - Value of resistance <i>Nilai rintangan</i></p> <p>Responding variable - reading of ammeter // ammeter reading// value of current <i>Bacaan ammeter//</i> <i>Nilai arus</i></p> <p>(ii) Able to record the time</p> <p>$A_2 - 3.0 \text{ A}$</p> <p>$A_3 - 2.0 \text{ A}$</p> <p>c) Able to draw a graph</p> 	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p>	<p>2</p> <p>2</p>
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	Correct and smooth line - award 1 mark Correct reading - award 1 mark	1	2
	d) Able to define operationally The current flow is shown by the reading of ammeter <i>Arus mengalir ditunjukkan oleh bacaan ammeter</i>	1	1
	e) Able to predict the ammeter reading 2.4 A \pm 0.1 A Note: Dotted line on the graph shows how student get the reading	1	1
	f) Able to make a conclusion When the resistance in the circuit is higher / more the current is lower // the higher the resistance the lower the current (flow in the circuit) <i>Jika rintangan (dalam litar) tinggi/ bertambah arus semakin rendah/kecil // semakin tinggi rintangan semakin rendah/kecil arus (mengalir dalam litar).</i> Vice versa	1	1
		TOTAL 12	TOTAL 12