



**BAHAGIAN PENGURUSAN
SEKOLAH BERASRAMA PENUH DAN SEKOLAH KECEMERLANGAN
KEMENTERIAN PELAJARAN MALAYSIA**

**PEPERIKSAAN PERCUBAAN PMR TAHUN 2011
TINGKATAN 3**

55/2

SCIENCE

Peraturan Pemarkahan

Ogos

UNTUK KEGUNAAN PEMERIKSA SAHAJA

AMARAN

Peraturan pemarkahan ini adalah **SULIT** dan Hak Cipta Bahagian Pengurusan Sekolah Berasrama Penuh dan Sekolah Kecemerlangan. Kegunaannya khusus untuk pemeriksa yang berkenaan sahaja. Sebarang maklumat dalam peraturan pemarkahan ini tidak boleh dimaklumkan kepada sesiapa. Peraturan pemarkahan ini tidak boleh dikeluarkan dalam apa-apa bentuk media.

Peraturan pemarkahan ini mengandungi 6 halaman bercetak


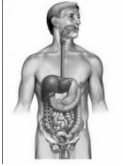

PEPERIKSAAN PERCUBAAN PMR SELARAS SBP 2011

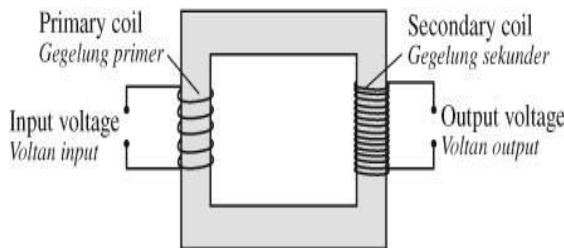
SKEMA PEMARKAHAN SAINS TINGKATAN 3 KERTAS 1

NO SOALAN	TOPIK	KONSTRUK	ARAS	JAWAPAN	STIMULUS
1	Topik 1	PSNR010102	R	C	Diagram 1
2	Topik 2	KSNR010101	R	B	
3	Topik 2	PSNR010201	T	D	Diagram 2
4	Topik 3	PSNR010102	S	C	
5	Topik 4	KSNR010501	S	A	Diagram 3
6	Topik 5	KSNR010201	S	D	Diagram 4
7	Topik 5	KSNR010201	T	B	Diagram 5
8	Topik 6	KSNR020102	R	B	
9	Topik 7	PSNR010102	R	B	Diagram 6
10	Topik 7	KSNR010201	T	D	Diagram 7
11	Topik 8	PSNR010203	R	C	
12	Topik 8	KSNR020102	S	C	
13	Topik 9	KSNR010401	R	A	Diagram 8
14	Topik 10	PSNR010201	R	B	
15	Topik 11	KSNR020102	T	A	Diagram 9
16	Topik 11	PSNR010102	R	D	
17	Topik 11	KSNR010201	S	B	Diagram 10
18	Topik 11	KSNR010401	R	C	
19	Topik 12	KSNR020101	T	B	Diagram 11
20	Topik 12	PSNR010101	R	C	
21	Topik 13	PSNR010202	S	C	
22	Topik 13	KSNR020102	R	A	Diagram 12
23	Topik 14	KSNR010401	R	C	
24	Topik 15	KSNR020102	S	D	Diagram 13
25	Topik 16	KSNR010501	S	C	Diagram 14
26	Topik 17	PSNR010102	R	A	Diagram 15
27	Topik 17	PSNR010102	R	B	Diagram 16
28	Topik 18	PSNR010102	S	D	
29	Topik 19	KSNR010201	R	C	Diagram 17
30	Topik 20	PSNR010102	R	C	Diagram 18
31	Topik 21	KSNR010101	S	C	Diagram 19
32	Topik 22	KSNR020102	R	D	
33	Topik 23	KSNR010201	R	A	Diagram 20
34	Topik 24	KSNR010201	T	B	Diagram 21
35	Topik 24	KSNR010401	S	A	Diagram 22
36	Topik 24	KSNR020101	T	D	Diagram 23
37	Topik 25	KSNR020201	T	B	
38	Topik 25	PSNR010102	R	B	Diagram 24
39	Topik 26	PSNR010201	S	B	Diagram 25
40	Topik 27	PSNR010201	R	A	
JUMLAH		40 soalan	R: 20 S: 12 T: 8		

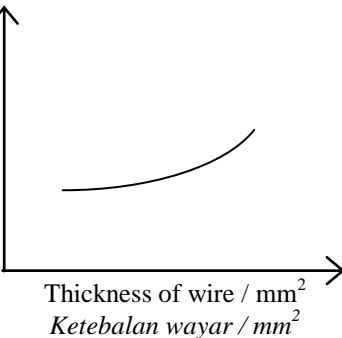
PEPERIKSAAN PERCUBAAN PMR SELARAS SBP 2011

SKEMA PEMARKAHAN SAINS TINGKATAN 3 KERTAS 2

Question Soalan	Mark Scheme Skema Pemarkahan	Marks Markah	
1 (a)	R: cardiac cells S: epithelial cells T: muscle cells	1 1 1	3
(b)	<p>System of human body</p>    <p>Function</p> <p>Supports and protects the inner organs of the body. <i>Menyokong dan melindungi organ dalaman badan.</i></p> <p>Absorbs oxygen and gets rid of carbon dioxide and water vapour from the body. <i>Menyerap oksigen dan menyingkirkan karbon dioksida dan wap air dari badan.</i></p> <p>Breaks up food into simpler form so that it is more easily absorbed by the body. <i>Memecahkan makanan kepada bentuk yang ringkas supaya mudah diserap oleh badan.</i></p>	1 1 1	3
		TOTAL	6
2 (a)	Silver // Platinum	1	1
(b)	Copper, Aluminium, Iron, Magnesium * 4 corrects = 2 marks * 3 corrects = 1 mark * 1 – 2 corrects = no mark	2	2
(c)	<div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; padding: 5px; margin: 0 10px;">iron</div> <div style="margin: 0 10px;">+ sulphur sulfur</div> <div style="margin: 0 10px;"> $\xrightarrow[\text{haba}]{\text{heat}}$ </div> <div style="border: 1px solid black; padding: 5px; margin: 0 10px;">Iron sulphide</div> </div> <p>* 1 correct answer = 1 mark</p>	2	2
(d)	Magnesium → Aluminium → Zinc → Iron → Copper // Magnesium, Aluminium, Zinc, Iron, Copper *all corrects= 1 mark * any one answer	1	1
		TOTAL	6

Question Soalan	Mark Scheme Skema Pemarkahan	Marks Markah					
3 (a)	Yam plant : cell turgidity Rose plant : prickles // woody tissues // woody stem (do not accept woody plant or thorn) Elodea : water buoyancy // air sack * all corrects= 1 mark * any one answer	1	1				
(b)	Both the yam plant and the leech depend on the water / fluid pressure in their body (cells) to obtain support * 1 mark for water pressure * 1 mark for explanation	1 1	1				
(c)	Prickles	1	1				
(d) (i)	It will wilt // cannot stand up-right // it will collapse * any one answer	1	1				
(ii)	Have small leaves // air sacs * any one 1 answer	1	1				
		TOTAL	6				
4 (a)	Device for changing the voltage of an alternating current // Increase or decrease the voltage of an alternating current * any one answer	1	1				
(b)	Step-up (transformer)	1	1				
(c)		1 1	2				
(d)	<table><tr><td>Step-up transformer <i>Transformer injak naik</i></td><td>i. crease the input voltage/ ii. utput voltage is higher than the input voltage/ iii. umber of turns in the primary coil less than secondary coil/ iv. umber of turns in the secondary coil more than primary coil</td></tr><tr><td>Step-down transformer <i>Transformer injak turun</i></td><td>i. ecrease the input voltage/ ii. utput voltage is lower than the input voltage/</td></tr></table>	Step-up transformer <i>Transformer injak naik</i>	i. crease the input voltage/ ii. utput voltage is higher than the input voltage/ iii. umber of turns in the primary coil less than secondary coil/ iv. umber of turns in the secondary coil more than primary coil	Step-down transformer <i>Transformer injak turun</i>	i. ecrease the input voltage/ ii. utput voltage is lower than the input voltage/	1 1	2
Step-up transformer <i>Transformer injak naik</i>	i. crease the input voltage/ ii. utput voltage is higher than the input voltage/ iii. umber of turns in the primary coil less than secondary coil/ iv. umber of turns in the secondary coil more than primary coil						
Step-down transformer <i>Transformer injak turun</i>	i. ecrease the input voltage/ ii. utput voltage is lower than the input voltage/						

Question Soalan	Mark Scheme Skema Pemarkahan		Marks Markah	
		iii. umber of turns in the primary coil more than secondary coil/ iv. umber of turns in the secondary coil less than primary coil		
	*any one answer *must compare with the same characteristic			
			TOTAL	6
5	(a)	(i) Small intestine	1	1
		(ii) Increase the temperature of distilled water to body temperature // 37° C	1	1
		(iii) Absorption of food occurs in boiling tube M but not in boiling tube L	1	1
	(b)	Starch has been digested // break down into glucose (by amylase)	1	1
	(c)	(i) Villi // villus	1	1
		(ii) (The inner surface) of the small intestine is highly folded // has millions of tiny finger-like projection	1	1
		(iii) The villi will increase the surface area of the small intestine	1	1
			TOTAL	7
6	(a)	First (class lever) // 1st (class lever) * any one answer	1	1
	(b)	(i) Move the hand towards the end of the tool //	1	1
		(ii) Increase the distance of force from pivot	1	1
		(iii) Clockwise movement * do not accept 'down'	1	1
		(iv) Loosening and tightening the nut	1	1
	(c)	(i) $350 \text{ N} \times 25 \text{ cm} = \text{Force} \times 70 \text{ cm}$ $\text{Force} = \frac{350 \text{ N} \times 25 \text{ cm}}{70 \text{ cm}}$ $= 125 \text{ N}$	1	2
		(ii) Use less effort to carry heavy load // Effort applied always less than load * any one answer	1	1
			TOTAL	8
7	(a)	(i) P: 5 R: 15	1	2
		(ii) The time taken for the thumbtack J to fall is faster for copper rod than iron rod * vice versa	1	1
		(iii) The higher the metal heat conductivity, the less the time taken for the thumbtack to fall	1	1
	(b)	Manipulated variables : Types of road	1	2
		Responding variables : Time taken for the thumbtack to fall	1	
	(c)	(i) The time taken for the thumbtack to fall for copper rod is less	1	1

Question Soalan	Mark Scheme Skema Pemarkahan	Marks Markah	
(ii)	than iron road because copper conduct heat better than iron * <i>do not accept 'depends on' or 'influence by'</i> * <i>must have observation + reason</i> More than 24s (accept any number between 25s to 60s)	1	1
		TOTAL	8
8 (a) (i)	The amount of steam produce is more in situation P than in situation Q	1	1
(ii)	The thicker the cable, the more steam produced	1	1
(iii)	The amount of steam produced is more because the cable is thick	1	1
(b) (i)	0.62 A	1	1
(ii)	<p>Ammeter reading/ A Bacaan ammeter / A</p>  <p>Thickness of wire / mm² Ketebalan wayar / mm²</p> <p><i>Data transfer</i> <i>All points are connected with clean line</i></p>	1 1	2
(iii)	The more the thickness of the wire, the more the readings of ammeter * <i>do not accept if students answer using 'current' as RV</i>	1	1
(iv)	Responding : Ammeter reading // current Manipulated : Thickness of the wire	1 1	2
(c) (i)	Resistance is the thickness of the wire	1	1
(ii)	High Resistance : J, M Low Resistance : K, L	1 1	2
		TOTAL	12

END OF QUESTION PAPER