

TERJAH

SULIT



**MAJLIS PENGETUA SEKOLAH MALAYSIA (MPSM)
CAWANGAN KELANTAN**

55

**PEPERIKSAAN PERCUBAAN
PENTAKSIRAN TINGKATAN 3 (2015)**

SAINS

Ogos 2015

Masa : Dua Jam

UNTUK KEGUNAAN PEMERIKSA SAHAJA

Sains

**PANDUAN
PENGSKORAN**

| Lihat Sel

PERATURAN PENSKORAN PEPERIKSAAN PERCUBAAN SAINS PT3 TAHUN 2015

NO		PERATURAN PENSKORAN	MARKAH			
1	(a)	<p>Able to name the apparatus</p> <p>Internal calipers / <i>Angkup dalam</i></p> <p>External calipers / <i>Angkup luar</i></p> <p>Beaker / <i>Bikar</i></p> <p>Remarks:</p> <p>Each apparatus – 1 mark</p>	3 marks			
	(b)	<p>Able to match the statement correctly</p> <table border="1"> <tr> <td>Causes mutation of cells and cancer <i>Menyebabkan mutasi sel dan kanser</i></td> </tr> <tr> <td>Irritants the respiratory duct and skin <i>Merengsa salur pernafasan dan kulit</i></td> </tr> <tr> <td>Explodes when exposed to heat <i>Meletup apabila terdedah terhadap haba</i></td> </tr> </table>	Causes mutation of cells and cancer <i>Menyebabkan mutasi sel dan kanser</i>	Irritants the respiratory duct and skin <i>Merengsa salur pernafasan dan kulit</i>	Explodes when exposed to heat <i>Meletup apabila terdedah terhadap haba</i>	3 marks
Causes mutation of cells and cancer <i>Menyebabkan mutasi sel dan kanser</i>						
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Explodes when exposed to heat <i>Meletup apabila terdedah terhadap haba</i>						

TOTAL

6

2	(a)	Able to identify the structure Answer i) nose / hidung ii) smell / bau	2 marks
	(b)	Able to state the function of mucus i) Dissolve the chemical substances/ <i>Melarutkan bahan kimia</i>	1 mark
		Able to explain how does the common cold reduce the sense of smell ii) The presence a lot of mucus will cover the smell reseptor/ <i>Kehadiran mukus yang banyak akan menyelaputi reseptor bau</i>	1 mark
	(c)	Able to arrange the letters in correct box Answer: T, P, S, R Remark : All correct - 2 marks 2 or 3 corrects - 1 mark 1 correct – 0 mark	2 marks
			TOTAL
			6
3	(a)	Able to tick (/) at the correct answer i) (/) monocotyledon / monokotiledon ii) (/) dicotyledon / dikotiledon	2 marks
	(b)	Able to give the example Monokotiledon : Maize plant / Pokok jagung Dikotiledon : Balsam plant / Pokok keembung	2 marks

	(c)	<p>Able to explain the importance of biodiversity</p> <p>Sample answer :</p> <p>P1 – to provide food and oxygen/ <i>Untuk membekalkan makanan dan oksigen</i></p> <p>P2 – To protect habitat of flora and fauna/ <i>Untuk melindungi habitat haiwan dan tumbuhan</i></p> <p>Remarks :</p> <p>Two points – 2 marks</p> <p>One point - 1 mark</p>	2 marks
			TOTAL 6
4	(a)	<p>Able to state the name of gases</p> <p>Answer :</p> <p>Oxygen and carbon dioxide</p>	2 marks
	(b)	<p>Able to explain the characteristic of alveolus</p> <p>Sample answer :</p> <p>P1- Alveolus has moist surface area/ <i>Alveolus mempunyai permukaan yang lembab</i></p> <p>P2 - Only one cell thick/ <i>Hanya setebal satu sel</i></p> <p>Remarks :</p> <p>Two points – 2 marks</p> <p>One point – 1 mark</p>	2 marks
	(c)	<p>Able to tick (/) for the correct statement and cross (X) for the false statement</p> <p>(i) X (ii) /</p>	2 marks
			TOTAL 6

5	(a)	Able to name the types of support system Answer : X : Buttress roots/ Akar banir Y : Tendrils / Sulur paut Z : Prop roots / Akar jangkang	3 marks
	(b)	Able to explain how an aquatic plant adapt in water area Answer : Aquatic plants have air sacs which enable it to float on water <i>Tumbuhan akuatik mempunyai ruang udara untuk membolehkannya terapung di kawasan berair</i> Remarks : air sac / ruang udara – 1 mark float / terapung – 1 mark	2 marks
	(c)	Able to state one example Sample answer : Water hyacinth / Keladi bunting	1 mark
			TOTAL 6
6	(a)	Able to name the system and its function Answer : P1 Urinary system / sistem urinari P2 Remove urea, excess mineral salt and water in the form of urine <i>Menyingkirkan urea, garam mineral berlebihan dan air dalam bentuk urin.</i> Remarks : One point – 1 mark Two points – 2 mark	2 marks
	(b)	Able to explain the effect Sample answer :	

		<p>P1 Kidney failure / <i>Ginjal rosak</i> (1 mark)</p> <p>P2 cannot filter waste product / <i>gagal menapis bahan kumuh</i> (1 mark)</p> <p>Remarks :</p> <p>One point - 1 mark</p> <p>Two point - 2 marks</p>	2 marks
	(c)	<p>Able to state good habits</p> <p>Sample answer :</p> <p>P1 – Drink at least 8 glasses of plain water daily/ <i>Minum air kosong sekurang-kurangnya 8 gelas sehari</i></p> <p>P2 – Reduce food that contain a lot of salt/ <i>Kurangkan makanan yang mengandungi banyak garam</i></p> <p>Remarks :</p> <p>Each point – 1 mark</p>	2 marks
7	(a)	<p>Able to name the resources of Y and Z</p> <p>Answer :</p> <p>Y : Living thing / <i>Hidupan</i></p> <p>Z : soil / <i>Tanah</i></p> <p>Remarks :</p> <p>Each resources – 1 mark</p>	<p>TOTAL</p> <p>6</p>
	(b)	<p>Able to state two another resources for photosynthesis</p> <p>Answer :</p> <p>P1 – Water / <i>Air</i></p> <p>P2 – Air / <i>Udara</i></p> <p>Remarks :</p> <p>Each point – 1 mark</p>	2 marks

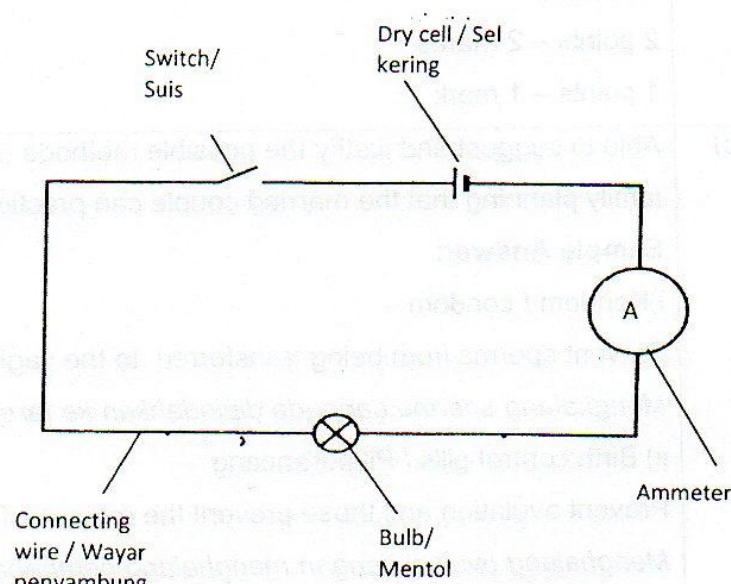
	(c)	<p>Able to give suggestion and explain how to preserve and conserve the resources on earth</p> <p>Sample answer :</p> <p>P1 – Recycle / Kitar semula</p> <p>P2 – reducing waste of natural resource/ <i>Mengurangkan pembaziran sumber alam</i></p> <p>Remarks :</p> <p>Suggestion with explanation – 2 marks</p> <p>Suggestion only – 1 mark</p> <p>Explanation only – 0 mark</p>	2 marks
		TOTAL	6
8	(a)	<p>Able to explain the differences of lever</p> <p>Answer :</p> <p>X : Fulcrum is between load and effort/ <i>Fulcrum berada di antara beban dan daya</i></p> <p>Y : Effort is between fulcrum and load/ <i>Daya berada di antara fulcrum dan beban</i></p> <p>Remarks :</p> <p>Each point – 1 mark</p>	2 marks
	(b)	<p>Able to draw and label a lever system</p> <p>Remarks :</p> <p>Draw and labelled correct diagram – 3 marks</p> <p>Draw and labelled 1-2 correct diagram – 2 marks</p> <p>Draw correctly without label – 1 mark</p>	3 marks

	(c)	<p>Able to explain the benefit of lever</p> <p>Sample answer :</p> <p>Lever help to make our work easier and faster/ <i>Tuas membolehkan kita melakukan kerja dengan mudah dan cepat</i></p>	1 mark
			TOTAL 6
9	(a)	<p>Able to state the function of the gap</p> <p>Answer :</p> <p>To allow the tracks to expand during hot day/ <i>Untuk memberi ruang landasan mengembang ketika hari panas</i></p>	1 mark
	(b)	<p>Able to predict what happen to the tracks and moving train</p> <p>Answer :</p> <p>P1 –The track will bend/ <i>Landasan akan membengkok</i></p> <p>P2 – The train will be derailed/ <i>Keretapi akan tergelincir</i></p> <p>Remarks :</p> <p>Each point - 1 mark</p>	2 marks
	(c)	<p>Able to explain how to remove the tight metal cap by using the expansion and contraction principle of matter</p> <p>Sample answer :</p> <p>P1 – Dip the cap of the bottle in the hot water/ <i>Tudung botol direndam dalam air panas</i></p> <p>P2 – The particles get energy and move far apart/ <i>Zarah-zarah memperoleh tenaga dan bergerak jauh</i></p> <p>P3 –The cap expands/ <i>Tudung botol mengembang</i></p>	3 marks

		<p>Remarks :</p> <p>An action with two explanations – 3 marks</p> <p>An action with one explanation – 2 marks</p> <p>An action without explanation – 1 mark</p> <p>Explanation only – 0 mark</p>	<p>TOTAL</p> <p>6</p>
10	(a)	<p>Able to give two examples of phenomena on the surface of the sun</p> <p>Answer :</p> <p>1 Sun spot / Tompok matahari</p> <p>2 Solar flare / Nyala suria</p> <p>Remarks :</p> <p>Each point - 1 mark</p>	2 marks
	(b)	<p>Able to describe the process occurs at core of the sun</p> <p>Answer :</p> <p>P1 – Nuclear reaction / tindak balas nuklear</p> <p>P2 – Hydrogen atoms fused to form helium / <i>Atom hidrogen bergabung membentuk helium</i></p> <p>P3 – Produce heat and light energy / <i>Membebaskan tenaga haba dan cahaya</i></p> <p>Remarks :</p> <p>Each point – 1 mark</p>	3 marks
	(c)	<p>Able to give the importance of the sun</p> <p>Sample answer :</p> <p>Provide heat and light energy to the living things/ <i>Membekalkan tenaga haba dan cahaya kepada hidupan</i></p>	<p>1 mark</p> <p>TOTAL</p> <p>6</p>

11	(a)	<p>Able to describe the in vitro fertilization process to produce "test-tube babies" / Perihalkan proses persenyawaan In Vitro untuk mehasilkan "bayi tabung uji"</p> <p>Answer :</p> <ul style="list-style-type: none">i)Ovum and sperm remove from the body <i>Ovum dan sperma dikeluarkan daripada badan</i>ii)Ovum are fertilised with sperm in culture petri dishes <i>Ovum disenyawakan dengan sperma di dalam piring petri kultur</i>iii) The culture petri dishes are incubated for several days for the fertilised ovum/egg to develop <i>Piring petri kultur dieram untuk beberapa hari supaya ovum/telur yang telah disenyawakan berkembang.</i>iv)The embryo is then inserted into the woman's where implantation takes place. <i>Embrio kemudian dimasukkan ke dalam uterus perempuan dan proses penempelan berlaku</i> <p>Remarks :</p> <ul style="list-style-type: none">4 point – 4 marks3 points – 3 marks2 points – 2 marks1 points – 1 mark	4 marks
	(b)	<p>Able to suggest the alternative method can overcome the sterility couple to get the babies</p> <p>Sample Answer :</p> <ul style="list-style-type: none">i)Hormone treatment is used to increase sperm and egg production. <i>Rawatan hormon untuk meningkatkan bilangan sperma atau penghasilan telur.</i>ii)Taking nutritious food which is rich in vitamin E and mineral.	2 marks

	<p>Pengambilan makanan berkhasiat yang kaya dengan vitamin E dan mineral.</p> <p>Remarks :</p> <p>2 points – 2 marks</p> <p>1 points – 1 mark</p>	
(c)	<p>Able to suggest and justify the possible methods of family planning that the married couple can practice</p> <p>Sample Answer:</p> <p>i) Kondom / condom – Prevent sperms from being transferred to the vagina <i>Menghalang sperma daripada dipindahkan ke faraj</i></p> <p>ii) Birth control pills / Pil perancang - Prevent ovulation and those prevent the release of ova <i>Menghalang ovulasi dengan menghalang pembebasan ovum</i></p> <p>iii) Spermicides / Spermisid – Kills sperm enter the vagina / <i>Membunuh sperma masuk ke faraj</i></p> <p>iv) IUD – Prevent implantation of zygote / <i>Menghalang penempelan zigot</i></p> <p>v) Rhythm method / Kaedah beritma Involves refraining from copulation during the fertile phase of the menstrual cycle <i>Mengelakkan persetubuhan semasa fasa subur mengikut kitar haid</i></p> <p>Remarks :</p> <p>2 method with 2 explanation completely – 4 marks</p> <p>2 method with 1 explanation -3 marks</p> <p>2 method without explanation -2 marks</p> <p>1 method without explanation-1 mark</p>	<p>4 marks</p> <p>TOTAL</p> <p>10</p>

12	(a) (i) Able to draw the diagram of series circuit using the given components.  Remarks : Draw all symbol of components and label correctly = 2 marks Draw all symbols only = 1 mark	2 marks
	(ii) Able to state the advantage and disadvantage for series circuit. Advantage : <ul style="list-style-type: none"> - Only one switch is needed to control all the components. Disadvantage : <ul style="list-style-type: none"> - Failure of any of the components in the circuit will break the path for the current flow. Kelebihan : <ul style="list-style-type: none"> - Hanya satu suis diperlukan untuk mengawal semua komponen. 	2 marks

	<p><i>Kekelahan :</i></p> <ul style="list-style-type: none"> - Kerosakan mana-mana komponen di dalam litar akan memutuskan jaluan untuk arus mengalir. 													
(b)	<p>(i) Able to complete the diagram.</p> <table border="1"> <tbody> <tr> <td>Ammeter reading (A) / Bacaan ammeter (A)</td> <td>0.2</td> <td>0.4</td> <td>0.6</td> <td>0.8</td> <td>1.0</td> </tr> <tr> <td>Voltmeter reading (V) / Bacaan voltmeter (V)</td> <td>0.8</td> <td>1.6</td> <td>2.4</td> <td>3.2</td> <td>4.0</td> </tr> </tbody> </table> <p>Remarks :</p> <p>All correct = 2 marks</p> <p>2-4 correct = 1 mark</p> <p>0-1 correct = 0 mark</p>	Ammeter reading (A) / Bacaan ammeter (A)	0.2	0.4	0.6	0.8	1.0	Voltmeter reading (V) / Bacaan voltmeter (V)	0.8	1.6	2.4	3.2	4.0	2 marks
Ammeter reading (A) / Bacaan ammeter (A)	0.2	0.4	0.6	0.8	1.0									
Voltmeter reading (V) / Bacaan voltmeter (V)	0.8	1.6	2.4	3.2	4.0									
	<p>(ii) Able to plot a graph of voltage against current using the data in the diagram.</p> <p style="text-align: center;">Voltage / V</p> <p style="text-align: center;">Current / A</p> <p>Remarks :</p> <p>Draw a graph correctly = 1 mark</p> <p>Plot all points correctly = 1 mark</p>	2 marks												

		<p>(iii) Able to calculate value of resistance using the information from the table.</p> <p>$R = \frac{V}{I}$</p> <p>Current = $\frac{0.8}{0.2}$ = 4 ohm</p>	2 marks
13	(a)	<p>(i) Able to explain how electrical energy is produced in a hydroelectric generator.</p> <p>Answer : P1 – Water is held in a large reservoir. / Air ditakung dalam suatu takungan yang besar P2 – Running water falls from the dam through a tunnel to spin the turbine. / Air yang bergerak jatuh dari empangan melalui satu terowong untuk memutarkan turbin. P3 – The turbine is attached to generators to produce electricity. / Turbin disambungkan kepada penjana untuk menghasilkan elektrik.</p>	3 marks
		<p>(ii) Able to write the energy changes.</p> <p>Answer : Potential energy → Kinetic energy → Electrical energy Tenaga keupayaan → Tenaga kinetik → Tenaga elektrik</p>	1 mark
	(b)	<p>(i) Able to state type of transformer</p> <p>Answer : Step-down transformer / Transformer injak turun</p>	1 mark

	<p>(ii) Able to complete the diagram below and explain the usage of Q.</p> <p>Answer :</p> <ul style="list-style-type: none"> - Number of turns of primary coil is more than that of secondary coil / Bilangan lilitan pada gegelung primer lebih daripada lilitan pada gegelung sekunder. <p>Remarks :</p> <p>Correct label diagram = 2 marks</p> <p>One explanation = 1 mark</p>	3 marks
	<p>(iii) Able to explain why the national grid network is used in the transmission and distribution of electricity.</p> <p>Answer :</p> <p>P1 – Any area requiring additional electrical energy can be supplied by an additional power station / Sebarang kawasan yang memerlukan tenaga elektrik tambahan boleh dibekalkan oleh stesen jana kuasa.</p> <p>P2 – Some power station can be closed when the demand of electrical energy is low / Sesetengah stesen jana kuasa boleh ditutup apabila keperluan tenaga elektrik berkurang.</p> <p>Remarks :</p> <p>Each point – 1 mark</p>	2 marks
14	(a) Able to state the balance diet	TOTAL 10

	A balance diet contain the seven classes of food in the right amount / <i>Gizi seimbang adalah makanan yang mengandungi ketujuh-tujuh kelas makanan dalam kuantiti yang sesuai.</i>	1 mark
(b)	Able to explain the function of R in the food pyramid / The function of R @ Protein is build a new cells that replace old or damaged cell / needed for growth and development <i>Fungsi R @ Protein adalah membina tisu-tisu baharu / membaiki tisu-tisu yang rosak / diperlukan untuk pertumbuhan dan perkembangan</i>	1 mark
(c)	Able to explain the two negative effects that may suffer in the future if the consuming healthy food if not following the food pyramid P1-They may get diabetis and heart diseases due to consumption of foods containing high sugar and fatty foods / <i>Mereka bakal menghidapi penyakit diabetis dan sakit jantung akibat pengambilan makanan yang mengandungi gula yang tinggi dan berlemak.</i> P2-They may suffer from osteoporosis because they do not eat foods high in calcium such as milk, green vegetables and nuts / <i>Mereka bakal mengalami penyakit osteoporosis akibat kurang mengambil makanan yang tinggi kalsium seperti susu, sayur hijau dan kekacang.</i> Remarks : Each point – 1 mark	2 marks
(d)	Able to suggest how we can overcome the obesity / i)Regular exercise / <i>kerap bersenam</i> ii)Reduce consumption of fatty food / <i>Mengurangkan pengambilan makanan berlemak</i>	3 marks

	<p>iii) Reduce consumption of carbohydrates / sugary food <i>Mengurangkan pengambilan karbohidrat / makanan bergula</i></p> <p>iv) Increase consumption of fruit and vegetables / <i>Meningkatkan pengambilan buah-buahan dan sayur-sayuran</i></p> <p>Remarks : Each point – 1 mark</p>	
(e)	<p>Able to decide the opinion and justify the opinion with supported evidences. P1-Agree / Setuju</p> <p>P2-Strawberries contain vitamin C which works to fight diseases and has the ability to increase the body's resistance to diseases / <i>Strawberi mengandungi vitamin C yang berfungsi untuk melawan penyakit dan berkeupayaan meningkatkan daya tahan tubuh terhadap penyakit</i></p> <p>P3-Strawberries contain folic acid (vitamin B9) which can lower the blood cholesterol levels and reduce the risk of heart attacks / <i>Strawberi mengandungi asid folik (vitamin B9) yang boleh menurunkan kadar kolesterol dalam darah dan mengurangkan risiko mendapat penyakit serangan jantung</i></p> <p>Remarks : Each point – 1 mark</p>	<p>3 marks</p> <p>TOTAL</p> <p>10</p>