

### BAHAGIAN A SECTION A

Jawab semua soalan.  
Answer all questions.

- 1 Antara padanan berikut, yang manakah benar?  
Which of the following matches is correct?

|   | Bahan berasid<br>Acidic substance   | Bahan beralkali<br>Alkaline substance |
|---|-------------------------------------|---------------------------------------|
| A | Sabun mandi<br>Soap                 | Bateri kereta<br>Car battery          |
| B | Detergen<br>Detergent               | Perapi rambut<br>Hair conditioner     |
| C | Jeruk<br>Pickles                    | Sos tomato<br>Tomato ketchup          |
| D | Minuman bergas<br>Carbonated drinks | Sabun mandi<br>Soap                   |

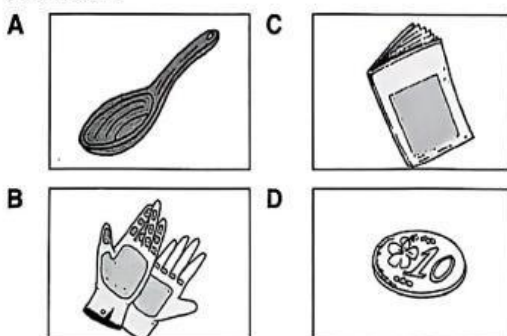
- 2 Antara berikut, yang manakah bukan sumber tenaga?  
Which of the following is not an energy source?

- A Matahari  
The Sun  
B Ombak  
Wave  
C Biojisim  
Biomass  
D Gunung berapi  
Volcano

- 3 Apakah daya yang dihasilkan apabila sesuatu objek menyentuh sesuatu permukaan?  
What is the force produced when an object is in contact with a surface?

- A Daya normal  
Normal force  
B Daya geseran  
Frictional force  
C Daya apungan  
Buoyant force  
D Daya graviti  
Gravitational force

- 4 Antara objek berikut, yang manakah merupakan konduktor haba yang baik?  
Which of the following objects is a good heat conductor?



- 5 Padanan yang manakah betul tentang perbezaan antara suhu dengan haba?  
Which comparison between heat and temperature is correct?

|   | Suhu<br>Temperature                                                                                                                      | Haba<br>Heat                                                                                                   |
|---|------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| A | Merupakan sejenis tenaga<br>A type of energy                                                                                             | Bukan sejenis tenaga<br>Not a type of energy                                                                   |
| B | Digunakan untuk mengukur darjah kepanasan sesuatu objek<br>Used to measure the degree of hotness of an object                            | Digunakan untuk mengukur darjah kesejukan sesuatu objek<br>Used to measure the degree of coldness of an object |
| C | Diukur dalam unit Joule<br>Measured in unit Joule                                                                                        | Diukur dalam unit Kelvin<br>Measured in unit Kelvin                                                            |
| D | Dipengaruhi oleh darjah pergerakan zarah-zarah di dalam sesuatu bahan<br>Affected by the degree of movement of the particles in a matter | Dipengaruhi oleh jenis bahan<br>Affected by type of material                                                   |

- 6 Bintang yang bersaiz sangat besar dikenali sebagai  
The very large size star is known as

- A bintang kerdil putih  
white dwarf star  
B bintang neutron  
neutron star  
C bintang raksasa merah  
red giant star  
D bintang super raksasa  
supergiant star

- 7 \_\_\_\_\_ ialah suatu ruang supermasif yang tidak membenarkan sebarang jirim terlepas darinya.

\_\_\_\_\_ is a supermassive space that does not allow any matter to escape from it.

- A Supernova  
Supernova  
B Nebula  
Nebulae  
C Lohong hitam  
Black hole  
D Neutron  
Neutron

- 8 Maklumat di bawah menunjukkan nilai pH beberapa jenis bahan.  
The information below shows the pH value of few substances.

| Bahan<br>Substance                  | pH   |
|-------------------------------------|------|
| Larutan ammonia<br>Ammonia solution | 11   |
| Peluntur<br>Bleach                  | 12.6 |
| Serbuk penaik<br>Baking powder      | 9    |
| Air laut<br>Sea water               | 8    |

Susunan bahan-bahan di atas mengikut kekuatan menaik kealkalian yang manakah betul?

Which arrangement of the substances above according to the increasing strength of alkali is correct?

- A Peluntur, serbuk penaik, air laut, larutan ammonia  
Bleach, baking powder, sea water, ammonia solution
- B Peluntur, larutan ammonia, serbuk penaik, air laut  
Bleach, ammonia solution, baking powder, sea water
- C Air laut, serbuk penaik, larutan ammonia, peluntur  
Sea water, baking powder, ammonia solution, bleach
- D Air laut, larutan ammonia, serbuk penaik, peluntur  
Sea water, ammonia solution, baking powder, bleach

- 9 Antara objek berikut, yang manakah menggunakan konsep elektromagnet?  
Which of the following objects uses the concept of electromagnet?

- A Sel kering  
Dry cell
- B Kad kredit  
Credit card
- C Pemanas elektrik  
Electric heater
- D Stetoskop  
Stethoscope

- 10 Permukaan yang \_\_\_\_\_ dan \_\_\_\_\_ dapat memantulkan bunyi dengan baik.  
\_\_\_\_\_ and \_\_\_\_\_ surfaces are good reflector of sound.

- A keras; kasar  
hard; rough
- B keras; licin  
hard; smooth
- C lembut; kasar  
soft; rough
- D lembut; licin  
soft; smooth

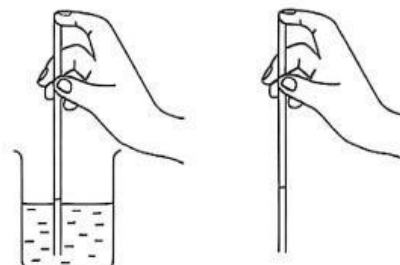
- 11 Apakah alat yang dapat membantu mengatasi had pendengaran manusia?

What is the device that can help to overcome the human limitations of hearing?

- A Radio  
Radio
- B Periskop  
Periscope
- C Stetoskop  
Stethoscope
- D Kanta pembesar  
Magnifying glass

- 12 Samantha melakukan penyiasatan seperti yang ditunjukkan dalam rajah di bawah. Apabila dia mengangkat penyedut minuman, didapati air di dalam penyedut minuman tidak keluar.

Samantha conducted an investigation as shown in the diagram below. When she lifted the straw, the water in the straw did not flow out.



Bagaimanakah situasi itu boleh berlaku?

How the situation occurs?

- A Air di dalam penyedut minuman tersangkut pada dinding penyedut minuman  
Water in the straw stuck at the wall of the straw
- B Air di dalam penyedut minuman membeku  
Water in the straw is frozen
- C Tekanan udara yang tinggi di dalam penyedut minuman menolak air di dalam penyedut minuman  
The high air pressure in the straw pushes the water in the straw
- D Tekanan atmosfera di bawah penyedut minuman menyeimbangkan tekanan udara di dalam penyedut minuman  
The atmospheric pressure below the straw balance up the air pressure in the straw

- 13 Tarikan graviti sesuatu planet dipengaruhi oleh \_\_\_\_\_ planet itu.

Gravitational pull of a planet is affected by the \_\_\_\_\_ of the planet.

- A saiz  
size
- B ketumpatan  
density
- C suhu  
temperature
- D kelajuan  
speed

- 14 Antara ciri-ciri berikut, yang manakah boleh digunakan untuk mengelaskan bintang?

Which of the following characteristics can be used to classify stars?

- I Warna  
Colour
- II Ketebalan  
Thickness
- III Jarak  
Distance
- IV Kecerahan  
Brightness
- A I, II dan III  
I, II and III
- B I, II dan IV  
I, II and IV
- C I, III dan IV  
I, III and IV
- D II, III dan IV  
II, III and IV