

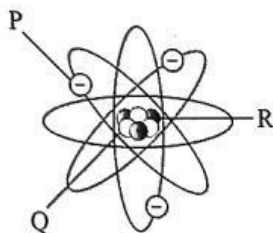
[20 markah / 20 marks]

Jawab semua soalan.

Answer all questions.

1. Rajah di bawah menunjukkan satu struktur atom.

**R** The diagram below shows the structure of an atom.



Antara berikut, yang manakah mewakili P, Q dan R?

Which of the following represent P, Q and R?

|   | P                    | Q                    | R                    |
|---|----------------------|----------------------|----------------------|
| A | Proton<br>Proton     | Elektron<br>Electron | Neutron<br>Neutron   |
| B | Proton<br>Proton     | Neutron<br>Neutron   | Elektron<br>Electron |
| C | Neutron<br>Neutron   | Proton<br>Proton     | Elektron<br>Electron |
| D | Elektron<br>Electron | Neutron<br>Neutron   | Proton<br>Proton     |

2. Apakah unsur-unsur dalam molekul air?

**R** What are the elements in a water molecule?

- A Sulfur dan oksigen / Sulphur and oxygen  
 B Nitrogen dan sulfur / Nitrogen and sulphur  
 C Oksigen dan hidrogen  
 Oxygen and hydrogen  
 D Nitrogen dan hidrogen  
 Nitrogen and hydrogen

3. Rajah di bawah menunjukkan satu contoh sebatian. / The diagram below shows an example of compounds.



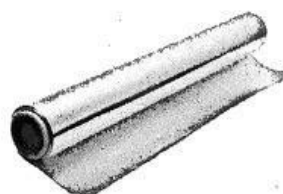
Antara berikut, pernyataan yang manakah benar tentang sebatian?

Which of the following statements is true about compounds?

- A Terdiri daripada satu unsur  
 Consist of one element  
 B Hanya boleh dipisahkan secara kimia  
 Can only be separated chemically  
 C Zink ialah sebatian / Zinc is a compound  
 D Sebatian ialah bahan yang paling ringkas / Compounds are the simplest form of substances

4. Rajah di bawah menunjukkan contoh logam dan bukan logam. / The diagram below shows examples of metals and non-metals.

**R**



Logam / Metal



Bukan logam / Non-metal

Apakah ciri bahan-bahan di atas?

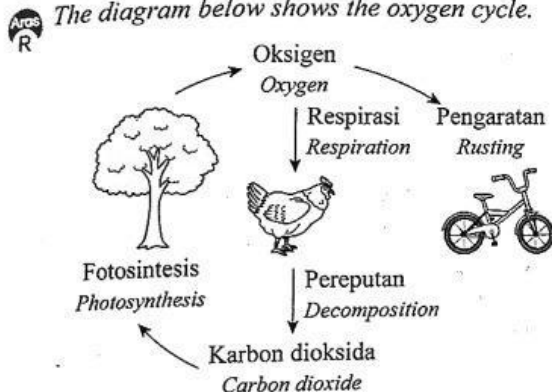
What is the characteristic of the materials above?

|   | Logam<br>Metal                          | Bukan logam<br>Non-metal                 |
|---|-----------------------------------------|------------------------------------------|
| A | Tidak boleh ditempa<br>Non-malleable    | Boleh ditempa<br>Malleable               |
| B | Ketumpatan tinggi<br>High density       | Ketumpatan rendah<br>Low density         |
| C | Takat lebur rendah<br>Low melting point | Takat lebur tinggi<br>High melting point |
| D | Mudah patah<br>Break easily             | Kuat<br>Strong                           |

5. Antara berikut, yang manakah boleh dipisahkan menggunakan kaedah pengapungan? / Which of the following can be separated using the floatation method?

A Air dan pasir / Water and sand  
 B Air dan minyak / Water and oil  
 C Serbuk kopi dan air / Coffee powder and water  
 D Klip kertas dan pasir / Paper clips and sand

6. Rajah di bawah menunjukkan kitar oksigen. The diagram below shows the oxygen cycle.



Antara berikut, yang manakah benar tentang kitar oksigen?

Which of the following is true about the oxygen cycle?

- A Pereputan membebaskan gas oksigen ke udara / Decomposition releases oxygen gas to the air  
 B Fotosintesis menggunakan oksigen di udara / Photosynthesis uses oxygen in the air  
 C Respirasi menggunakan oksigen daripada pengaratian / Respiration uses oxygen from rusting  
 D Fotosintesis membebaskan oksigen untuk kegunaan respirasi / Photosynthesis releases oxygen for the use of respiration

7. Maklumat di bawah menerangkan tentang kepentingan gas P.

The information below describes the importance of gas P.

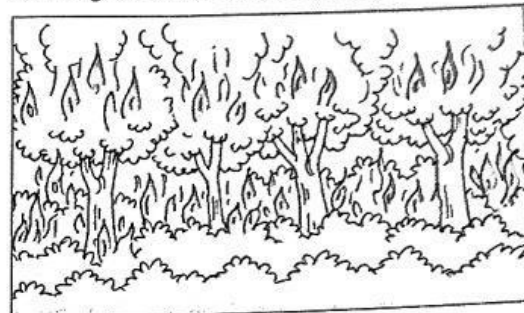
Gas P digunakan untuk mengisi mentol.  
 Gas P is used to fill up light bulbs.

Berdasarkan maklumat di atas, apakah P?  
 Based on the information above, what is P?

- A Oksigen / Oxygen  
 B Nitrogen / Nitrogen  
 C Argon / Argon  
 D Karbon dioksida / Carbon dioxide

8. Rajah di bawah menunjukkan kebakaran hutan.

The diagram below shows a forest fire.



Berdasarkan rajah tersebut, apakah jenis pencemaran yang berlaku?

Based on the diagram, what type of pollution occurs?

- A Air / Water  
 B Udara / Air  
 C Bunyi / Sound  
 D Radioaktif / Radioactive

9. Maklumat di bawah merujuk kepada definisi pembakaran.

The information below refers to the definition of combustion.

Tindak balas yang berlaku apabila suatu bahan dipanaskan dengan kehadiran X  
 A reaction that occurs when a substance is heated in the presence of X

Berdasarkan maklumat di atas, apakah X?  
 Based on the information above, what is X?

- A Habuk / Dust  
 B Oksigen / Oxygen  
 C Nitrogen / Nitrogen  
 D Karbon dioksida / Carbon dioxide

10. Antara berikut, yang manakah boleh mengelakkan gangguan kepada kitar oksigen dan kitar karbon?

Which of the following can prevent interferences in the oxygen cycle and the carbon cycle?

- A Melakukan pembalakan haram  
*Performing illegal logging*
- B Menanam semula pokok / Reforestation
- C Melakukan pembakaran hutan  
*Conducting forest burning*
- D Menggunakan racun serangga secara berleluasa / *Using pesticides excessively*

11. Rajah di bawah menunjukkan sebuah cermin.

 The diagram below shows a mirror.



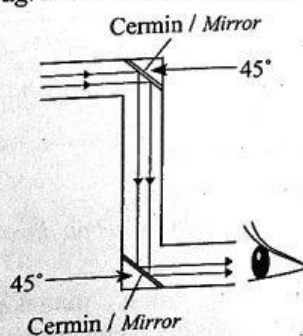
Antara berikut, yang manakah merupakan kegunaan cermin dalam rajah di atas?

*Which of the following is the function of the mirror in the diagram above?*

- A Membantu penari membetulkan pergerakannya semasa latihan  
*Helps a dancer to correct her movements during training*
- B Membesarkan imej bagi memudahkan seseorang untuk bersolek  
*Magnifies the image to help someone apply make up easily*
- C Menjadikan ruang bilik kelihatan luas  
*Makes a room look spacious*
- D Membantu individu memantau keselamatan diri di selekoh jalan yang berbahaya / *Helps an individual to monitor their safety on the dangerous corner of a road*

12. Rajah di bawah menunjukkan satu alat optik.

 The diagram below shows an optical instrument.



Antara berikut, pernyataan yang manakah benar tentang alat di atas? / *Which of the following statements is true about the instrument above?*

- A Alat itu ialah kaleidoskop.  
*The instrument is a kaleidoscope.*
- B Bilangan imej lebih banyak daripada objek. / *The number of images is more than the object.*
- C Alat itu digunakan untuk melihat keadaan di permukaan laut. / *The instrument is used to observe the condition on the sea surface.*
- D Imej objek di dalam alat itu mengalami pantulan berkali-kali. / *The image of the object inside the instrument is reflected repeated times.*

13. Bagaimanakah bayang-bayang terbentuk?

 How are shadows formed?

- A Cahaya bergerak lurus.  
*Light travels in a straight line.*
- B Cahaya menembusi objek legap.  
*Light penetrates opaque objects.*
- C Cahaya dihalang oleh objek legap.  
*Light is blocked by opaque objects.*
- D Cahaya disebar. / *Light is dispersed.*

14. Rajah di bawah menunjukkan satu kon keselamatan.

 The diagram below shows a safety cone.

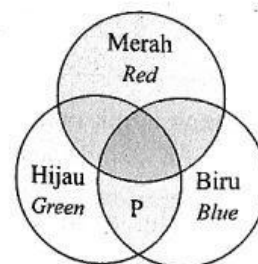


Apakah sifat cahaya yang diaplikasikan dalam rajah di atas? / *What is the property of light applied in the diagram above?*

- A Pantulan / *Reflection*
- B Pembiasan / *Refraction*
- C Penyerakan / *Scattering*
- D Penyebaran / *Dispersion*

15. Rajah di bawah menunjukkan penambahan cahaya. / *The diagram below shows the addition of light.*





Apakah P? / What is P?

- A Kuning / Yellow
- B Sian / Cyan
- C Magenta / Magenta
- D Putih / White

16. Rajah di bawah menunjukkan satu komponen dalam sistem Bumi.

AROS  
R

The diagram below shows a component in the Earth system.



Berdasarkan rajah di atas, apakah sistem Bumi tersebut?

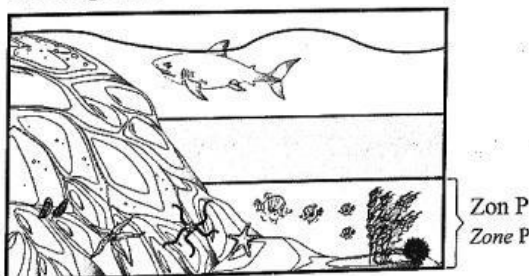
Based on the diagram above, what is the component in the Earth system?

- A Biosfera / Biosphere
- B Geosfera / Geosphere
- C Atmosfera / Atmosphere
- D Hidrosfera / Hydrosphere

17. Rajah di bawah menunjukkan stratifikasi dalam lautan.

AROS  
R

The diagram below shows the ocean stratification.



Berdasarkan rajah di atas, pernyataan yang manakah benar tentang zon P?

Based on the diagram above, which statement is correct about zone P?

- A Mempunyai sedikit cahaya  
Has little light
- B Sesuai untuk habitat tumbuhan  
Suitable as a habitat for plants
- C Habitat untuk haiwan laut yang besar  
Habitat for large marine animals
- D Kebanyakan haiwan mempunyai badan yang berkilau  
Most animals have shimmering bodies

18. Antara berikut, yang manakah terbentuk daripada mampatan bahan-bahan enapan yang dibawa oleh sungai, glasier dan angin?  
Which of the following is formed by compression of deposited materials carried by the rivers, glaciers and wind?

- A Batuan igneus / Igneous rocks
- B Batuan sedimen / Sedimentary rocks
- C Batuan metamorfik / Metamorphic rocks
- D Batuan granit / Granite rocks

19. Pernyataan berikut ialah tentang proses utama Bumi.

AROS  
R

The following statement is about the main processes of the Earth.

Proses utama Bumi ialah eksogen dan endogen.

The main processes of the Earth are exogenic and endogenic.

Berdasarkan pernyataan di atas, yang manakah proses endogen?

Based on the statement above, which is an endogenic process?

- A Luluhawa / Weathering
- B Hakisan / Erosion
- C Aktiviti magma / Magma activity
- D Angkutan dan penganapan  
Transport and sedimentation

20. Pernyataan di bawah merujuk kepada mineral ekonomi di Bumi.

AROS  
R

The statement below refers to the economic minerals in the Earth.

Terdapat tiga jenis mineral ekonomi di Bumi iaitu mineral logam, mineral bukan logam dan mineral nadir.

There are three types of economic minerals in the Earth which are metallic minerals, non-metallic minerals and rare earth minerals.

Antara berikut, yang manakah mineral bukan logam?

Which of the following is a non-metallic mineral?

- A Emas / Gold
- B Bijih besi / Iron ore
- C Bijih timah / Tin ore
- D Arang batu / Coal