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Science  
Paper 1  
July  
2006  
1 hour



# Set 1

JABATAN PELAJARAN NEGERI PERAK

PENILAIAN MENENGAH RENDAH 2006

Learning To Score

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**SCIENCE**

Paper 1

1 hour

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**DO NOT OPEN THE QUESTION PAPER UNTIL YOU ARE TOLD TO DO SO**

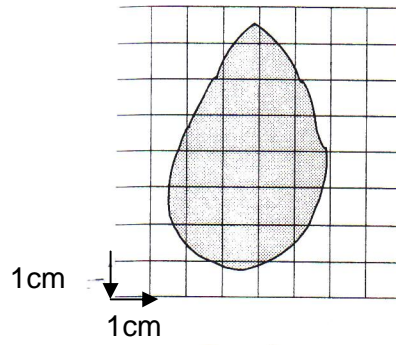
1. This question paper consists of 40 questions.
2. Answer **all** questions.
3. Answer each question by blackening the correct space on the answer sheet.
4. Blacken only one space for each question.
5. If you wish to change your answer, erase the blackened mark that you have made. Then blacken the space for your new answer.
6. The diagrams in the questions provided are not drawn to scale unless stated.
7. You may use a **non-programmable** scientific calculator.

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*This question paper consists 15 printed pages.*

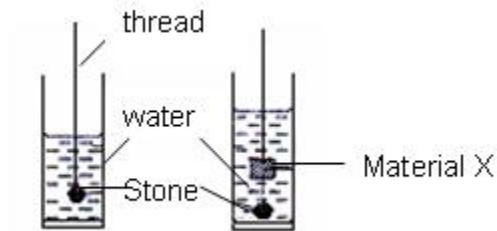
Answer **all** questions

- 1 The figure shows the outline of an irregular shape.



The approximate area of the object is

- A 21 cm<sup>2</sup>
  - B 23 cm<sup>2</sup>
  - C 25 cm<sup>2</sup>
  - D 27 cm<sup>2</sup>
- 2 The figure shows a method to determine the volume of material X.



Material X is probably made of

- A wax
  - B metal
  - C copper
  - D polystyrene
- 3 Which substance contains particles that are arranged in fixed position?
- A Oil
  - B Wood
  - C Alcohol
  - D Hydrogen

- 4 Table above shows the substances and it's densities.

Substances	Density ( g/cm <sup>3</sup> )
Iron	7.80
Wood	0.50
Petrol	0.80
Silver	10.5
Glycerine	1.30

Which substance will float in petrol ?

- A** Iron  
**B** Silver  
**C** Wood  
**D** Glycerine

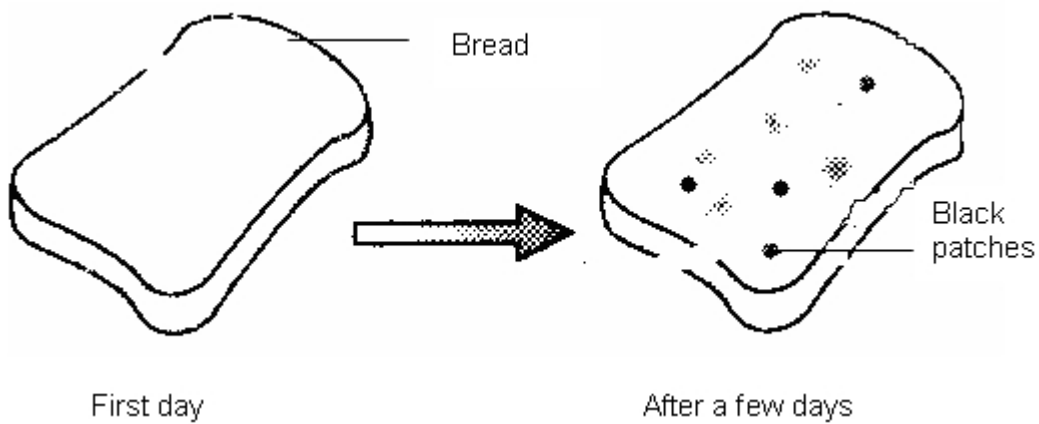
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- |  |
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| <ul style="list-style-type: none"><li>• Dull surface</li><li>• Brittle</li><li>• Poor Heat Conductor</li></ul> |
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Which of the following substance has the above properties?

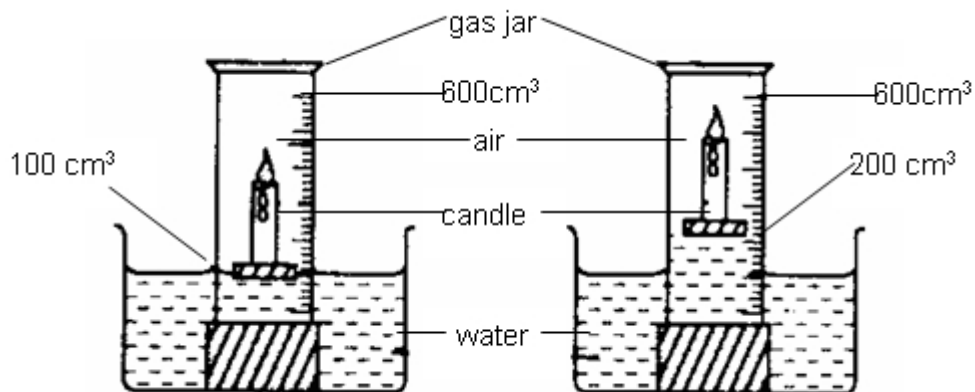
- A** Iron  
**B** Calcium  
**C** Sulphur  
**D** Magnesium

- 6 The figure shows the condition of a slice of bread after a few days.



What can you infer from this observation?

- A Bread contains water
  - B Bread produces fungi
  - C Air contains water vapour
  - D Air contains microorganisms
- 7 The figure shows an experiment to find the percentage of oxygen used by a burning candle.

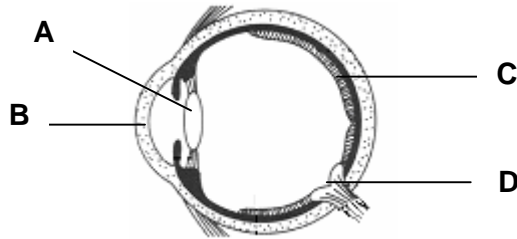


When the candle extinguishes, the percentage of oxygen used is

- A 16.7%
- B 20.0%
- C 40.0%
- D 66.7%

- 8 Which of the following energy sources are non-renewable?
- A Solar
  - B Hydro
  - C Waves
  - D Nuclear
- 9 Which of the following methods of water purification causes water to lose its minerals?
- A Boiling
  - B Filtration
  - C Distillation
  - D Coagulation

- 10 The figure shows the cross section of the human eye.



Which of the labeled is the part that most sensitive to light?

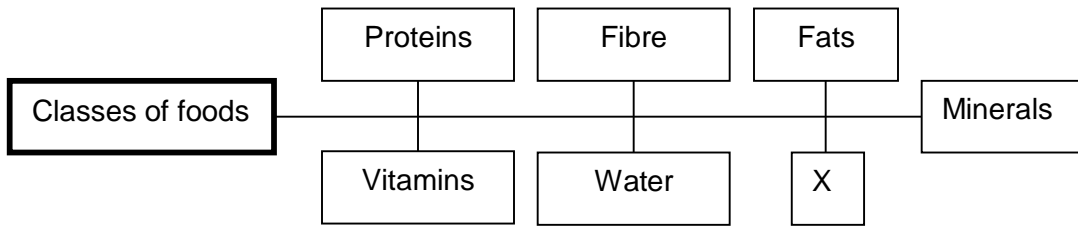
- 11 A student carries out an experiment to study the sensitivity of the finger tips, back of the hand and the elbow. The different parts of the body are touched with one pin and then two pins. The result of the experiment is shown in the following table.

Part of the body	Result	
	Using 1 pin	Using 2 pins
Finger tips	Correct answer	Correct answer
Back of the hand	Wrong answer	Wrong answer
Elbow	Wrong answer	Wrong answer

What is the conclusion for the experiment?

- A The receptors in the finger tips are closely arranged.
- B The back of the hand and the elbow do not have receptors.
- C The fat layer in the finger tips is lesser than that in the back of the hand and the elbow.
- D The receptors in the finger tips are more sensitive than that in the back of the hand and the elbow..

12 The figure shows that X is one of the classes of food.



What is the main function of X?

- A Maintains good health
- B Supplies most of the energy to do works
- C Keeps us warm and protects our organs
- D Needs for growth and repairs damage tissues

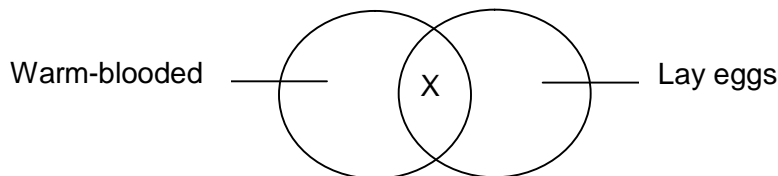
13 A student carries out an experiment as shown in the procedures.

Step 1 : Add 5 drops of ethanol to the sample of food.  
 Step 2 : Shake the mixture.  
 Step 3 : Add an equal amount of water to the mixture.  
 Step 4 : Shake the mixture and allow it to stand for about 2 minutes.  
 Step 5 : Observe any changes after 2 minutes.

Which type of food is tested by the student?

- A Oils
- B Starch
- C Proteins
- D Glucose

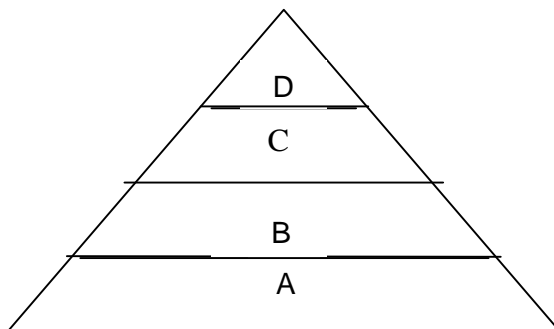
14 The circles in the figure show two characteristics of an animal.



X represents the animal which has both characteristics. What is X?

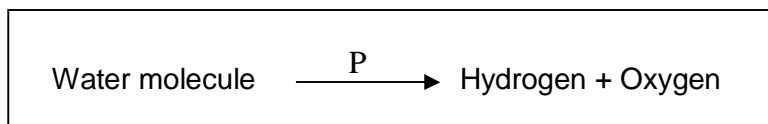
- A A cat
- B A frog
- C A pigeon
- D A crocodile

- 15 The figure shows a pyramid number.



Which of the following A, B, C or D has the highest energy content?

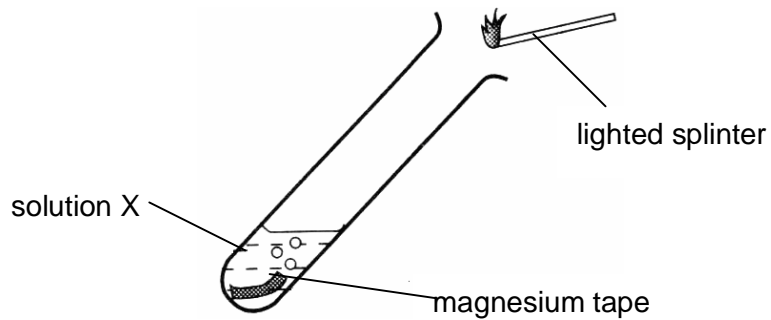
- 16 The equation shows how a water molecule can be broken down into its components.



Which of the following represents process P?

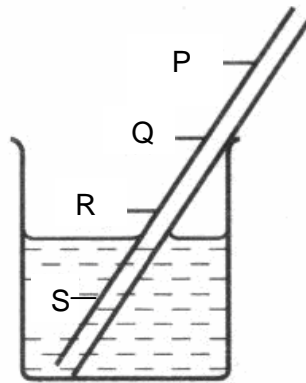
- A Melting
- B Filtration
- C Distillation
- D Electrolysis

- 17 The gas released in the following figure makes a 'pop' sound when tested with a lighted splinter.



Which of the following may be the pH value of solution X?

- A 1
  - B 7
  - C 8
  - D 14
- 18 The figure shows a drinking straw in a glass of water.



Where could a hole be made to enable the water to be sucked up ?

- A P
- B Q
- C R
- D S



19 Which of the following instruments uses air pressure to function?

- I Dropper
- II Spraying pump
- III Rubber suckers

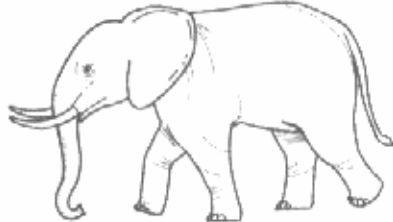
- A I and II only
- B I and III only
- C II and III only
- D I, II and III

20 Which of the following cases is a force acting on an object?

- I A car coming to a stop.
- II A girl moving down a slide.
- III An apple falling to the ground.

- A I and II only.
- B I and III only.
- C II and III only.
- D I, II and III.

21 The figure shows the biggest animal on land.



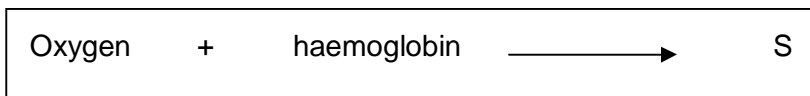
Which of the following support system related to the animal?

- A Exoskeleton
- B Endoskeleton
- C Water buoyancy
- D Hydrostatic skeleton

22 The position of the point of equilibrium of an object depends on

- A its shape
- B its weight
- C its volume
- D the force of gravity

- 23 An object with a low centre of gravity will
- A be heavy
  - B be more stable
  - C have a large volume
  - D have a large surface area
- 24 A lever consists of the following parts
- I Load
  - II Effort
  - III Fulcrum
- A I and II only.
  - B I and III only.
  - C II and III only.
  - D I, II and III.
- 25 We should use a third class lever if we want to design a machine because
- A We want to lift a heavy load with a small force.
  - B We want to save energy when working the machine.
  - C We want to lower the cost of constructing the machine.
  - D We want the movement of the load to be more than the movement of the effort.
- 26 The equation shows a process that take place in the blood capillaries.



What is S?

- A oxygen dioxide
  - B oxyhaemoglobin
  - C oxygenated blood
  - D deoxygenated blood
- 27 Which of the following statements about inhalation is **true**?
- A the volume of the thoracic cavity decrease
  - B the rib cage moves downwards and inwards
  - C the diaphragm contracts and moves downwards
  - D the air pressure in the lungs is greater than the air pressure outside the body

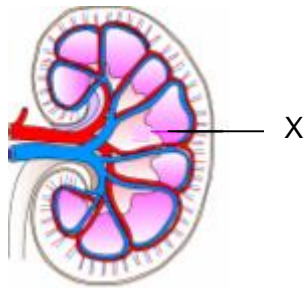
- 28 The figure shows a component in the human blood.



The function of the component is

- A help the blood to clot
  - B transport oxygen to the cells of the body
  - C help the body fight off diseases and resist infection
  - D transport substances needed by cells and removes waste products from cells
- 29 The excretion of carbon dioxide helps to
- A maintain our blood pressure
  - B control our body temperature
  - C control the acidity of our body
  - D maintain our body salt content

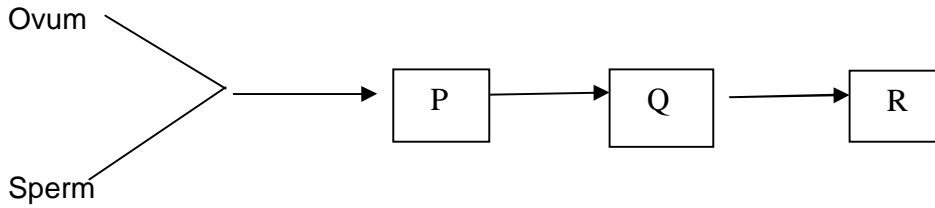
- 30 The figure shows the structure of the kidney.



What is the function of X?

- A To collect urine
- B To produce urea
- C To filter waste products
- D To channel urine to the outside of the body

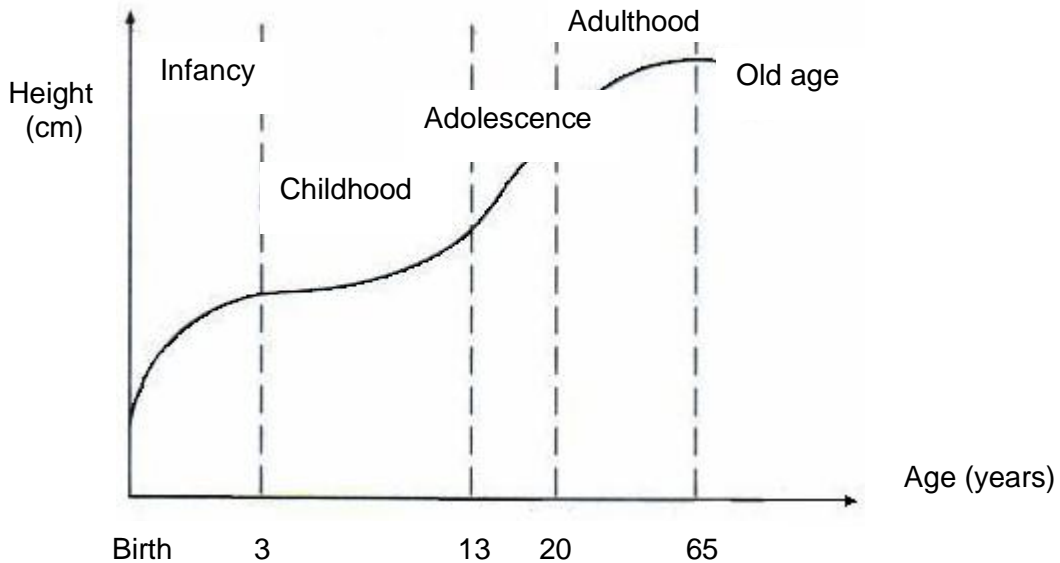
31 The figure shows part of the stages of the human development.



Which of the following is represented by P,Q and R

	P	Q	R
<b>A</b>	Zygote	Embryo	Foetus
<b>B</b>	Embryo	Foetus	Zygote
<b>C</b>	Foetus	Zygote	Embryo
<b>D</b>	Zygote	Foetus	Embryo

32 The graph shows the human growth curve.



Based on the graph, what can be deduced ?

	Stage	Rate of growth
<b>A</b>	Infancy	Slow
<b>B</b>	Childhood	Rapid
<b>C</b>	Adolescence	Very rapid
<b>D</b>	Adulthood	Negative growth

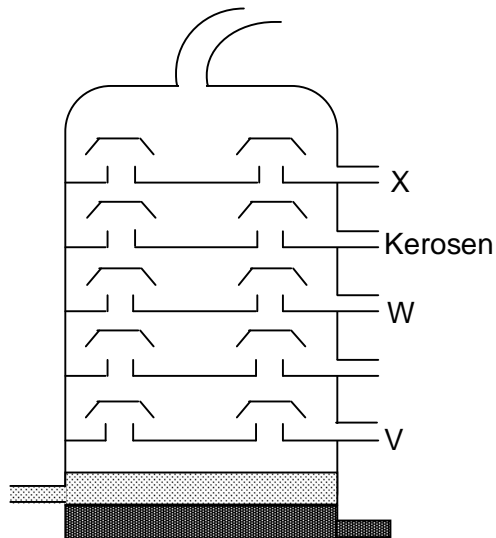
33 The following substances can be absorbed by the developing foetus.

- |  |
|--|
| <ul style="list-style-type: none"> <li>• Drugs</li> <li>• Alcohol</li> <li>• Chemicals in tobacco smoke</li> </ul> |
|--|

What is the effect of these substances to the foetus?

- A Promotes healthy brain development
- B Increases the growth rate of the foetus
- C Improves the rate of absorption of nutrients
- D Causes birth defects such as mental retardation

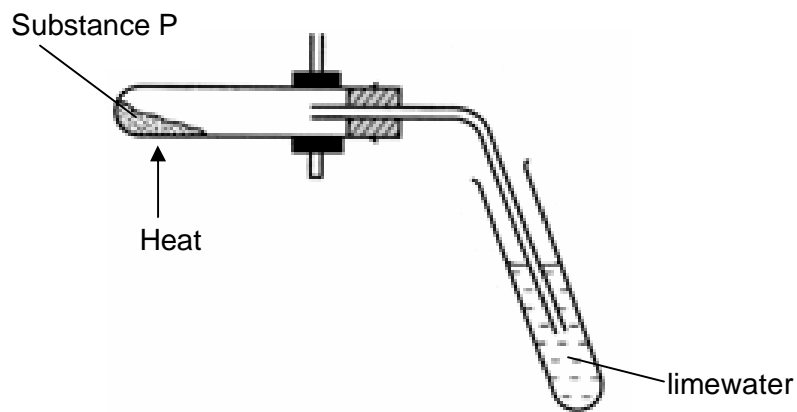
34 The diagram shows the fractional distillation of petroleum.



What are the products of the petroleum distillation labeled V, W, and X?

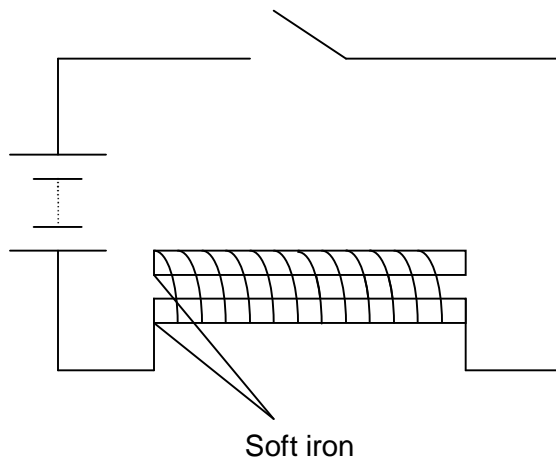
	V	W	X
A	Fuel oil	Bitumen	Petrol
B	Lubricating oil	Diesel	Naphtha
C	Paraffin	Lubricating oil	Naphtha
D	Fuel oil	Diesel	Petrol

- 35 The figure shows the effect of heat on substance P.



The gas produced turns lime water cloudy. What is substance P?

- A Copper oxide
  - B Calcium silicate
  - C Calcium sulphate
  - D Calcium carbonate
- 36 The figure shows two position of soft iron in a wire coil.



When the switch is on, both two pieces of soft iron

- A vibrate
- B become hot
- C repel each other
- D are pushed out of the wire coil

- 37** Five lamps with the label 40 W,240 V are used for 5 hours and a television with label 500 W,240 V is used for 8 hours in a day? The tariff rates for use of electrical. are given below

For the first 100 units = 20 cent per unit  
 For the next 100 units = 23 cent per unit  
 For every additional unit = 26 cent per unit  
 What is the total cost of using those appliances for 30 days?

- A** RM 25.98
- B** RM 27.65
- C** RM 28.05
- D** RM 31.50

- 38** Based on the given information, which is the correct sequence of formation and death of a star?

<b>L</b>	New Star
<b>M</b>	Nebula
<b>N</b>	Black Hole
<b>P</b>	Red Supergiant

- A** N,M,L,P
- B** P,M,L,N
- C** M,L,P,N
- D** L,M,N,P

- 39** The atmospheric layer of the Sun that is only visible during a full eclipse of the Sun is

- I** corona
- II** chromosphere
- III** photosphere

- A** I and II
- B** I and III
- C** II and III
- D** I , II and III

- 40** In Malaysia, remote sensing technology is used in agriculture to

- A** monitor oil spills
- B** monitor landslides
- C** monitor soil condition
- D** prevent natural disasters

**END OF QUESTION PAPER**