

SULIT



**SEKOLAH BERASRAMA PENUH
BAHAGIAN PENGURUSAN
SEKOLAH BERASRAMA PENUH/ KLUSTER
KEMENTERIAN PELAJARAN MALAYSIA**

PERCUBAAN PENILAIAN MENENGAH RENDAH 2008

55/1

TINGKATAN 3

SCIENCE

Kertas 1

Ogos

1 jam

Satu jam

JANGAN BUKA KERTAS SOALAN INI SEHINGGA DIBERITAHU

- 1. Kertas soalan ini adalah dalam Bahasa Inggeris .*
- 2. Calon dikehendaki membaca maklumat di halaman belakang kertas soalan ini.*

Kertas soalan ini mengandungi 18 halaman bercetak

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- 1 Diagram 1 shows the hazard symbol of substance X.

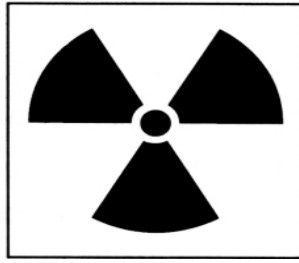


Diagram 1

What is the best way of handling substance X?

- A Keep in a lead container
 - B Keep under the paraffin oil
 - C Keep away from heat sources
 - D Avoid contact with skin or eyes
- 2 The purpose of staining cells with iodine solution before observing them under a microscope is
- A to kill the cells
 - B to see the cells clearly
 - C to stimulate the cells to move
 - D to increase the size of the cells
- 3 Diagram 2 shows the classification of matter.

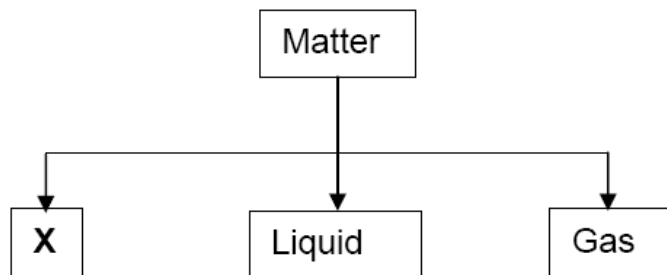


Diagram 2

Which of the following is **true** about X?

- A Its particles move randomly.
- B It does not have a fixed shape.
- C It does not have a fixed volume.
- D Its particles are arranged very closely together.

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- 4 Which of the following is paired **correctly**?

	Metal	Use
A	Tin	Food containers
B	Iron	Battery electrodes
C	Copper	Cooking utensils
D	Aluminium	Cutting glass and stone

- 5 Diagram 3 shows a set of apparatus in an experiment

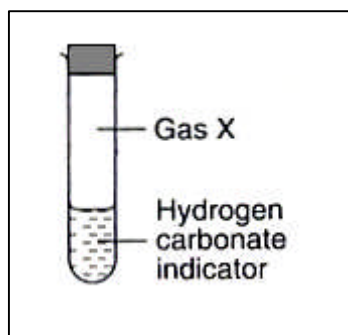


Diagram 3

Hydrogen carbonate indicator changes from red to yellow when it reacts with gas **X**. What is gas **X**?

- A** Oxygen
- B** Sulphur
- C** Hydrogen
- D** Carbon dioxide

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- 6 Diagram 4 shows a pendulum oscillating from **L** to **N** and back to **L** through **M**.

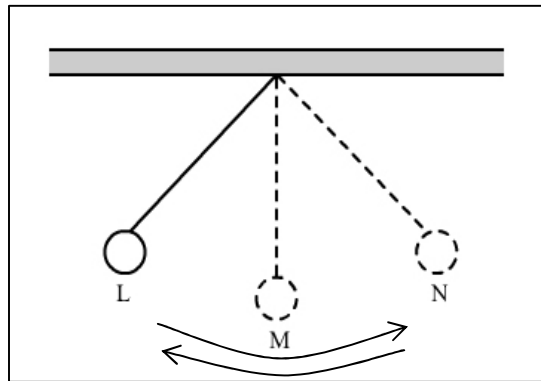


Diagram 4

Which of the following statements is correct?

- A Potential energy at **L** is minimum
 - B Potential energy at **N** is minimum
 - C Potential energy at **M** is minimum
 - D Kinetic energy at **L** and **N** is maximum
- 7 Diagram 5 shows an activity to compare the amount of heat in beakers **X** and **Y**.

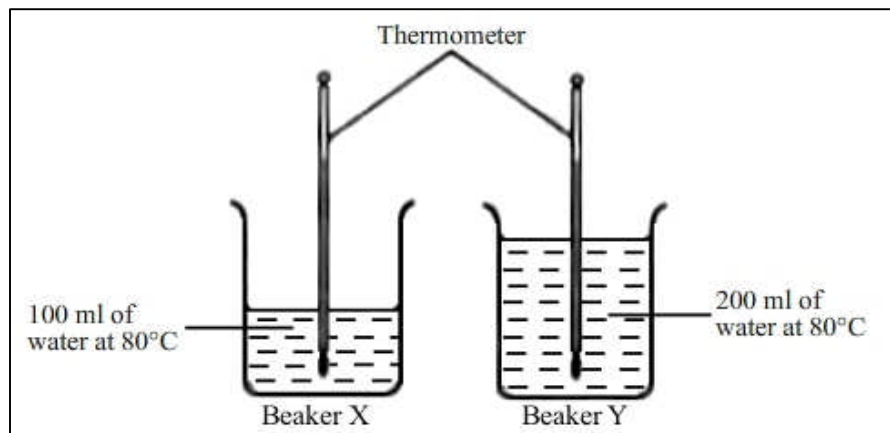


Diagram 5

Which of the following statements about this activity is correct?

- A Beaker **X** shows a greater increase in temperature
- B Water in beaker **Y** has more heat content than water in beaker **X**
- C Water in beaker **X** has more heat content than water in beaker **Y**
- D The heat energy stored in water in beakers **X** and **Y** are the same.

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8 The inner wall of a hall is made of soft material so that

- A sound is reflected
- B echoes are produced**
- C absorption of sound occurs
- D the pitch of the sound increases

9 Diagram 6 shows the human digestive system.

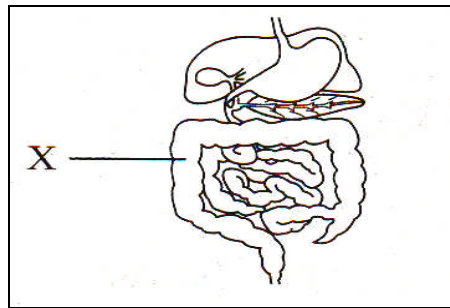


Diagram 6

The main function of the part labeled X is the

- A digestion of fats.
- B absorption of water.**
- C absorption of amino acids.
- D digestion of carbohydrates.

10 Diagram 7 shows the apparatus set-up to study the absorption of digested food. After 30 minutes, a sample of water is taken and tested.

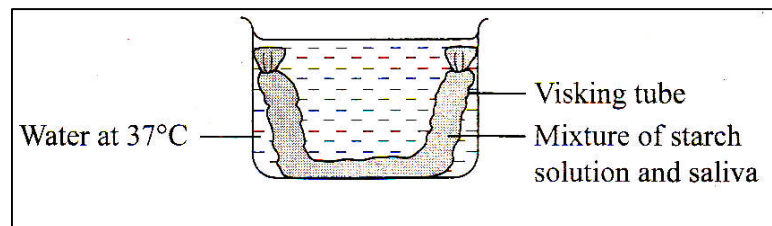


Diagram 7

What is the result of the test?

- A A translucent mark on the filter paper is formed.
- B The sample turns dark blue when tested with iodine solution.**
- C A brick-red precipitate is formed when the sample is tested with Millon's reagent.
- D A brick-red precipitate is formed when the sample is tested with Benedict's solution.

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11 Salmon, salamanders and snakes

- A** are reptiles
- B** are cold-blooded
- C** breathe through gills
- D** have dry scales on their bodies

12 Diagram 8 shows the structure of a leaf.

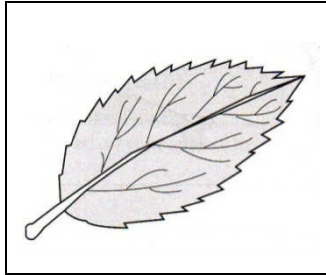


Diagram 8

Which of the following plants has the same leaf structure as shown above?

- A** Chilli plant
- B** Maize plant
- C** Orchid plant
- D** Coconut plant

13 Diagram 9 shows the Rafflesia which lives on the root of a woody plant.

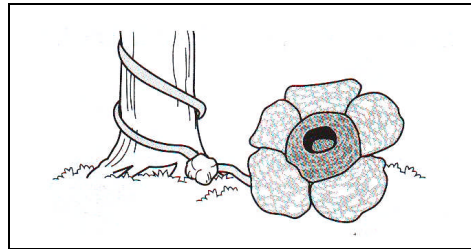


Diagram 9

The Rafflesia is a parasite because it

- A** provides food for the plant.
- B** absorbs food from the root of the plant.
- C** provides food for the plant while the plant protects it.
- D** competes with the plant to get the same necessities to survive.

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14 Which of the following shows the correct organization of an ecosystem?

- A Community → population → ecosystem
- B Ecosystem → population → community
- C Community → ecosystem → population
- D Population → community → ecosystem

15 Diagram 10 shows a beaker of water mixed with a lot of copper sulphate powder being stirred.

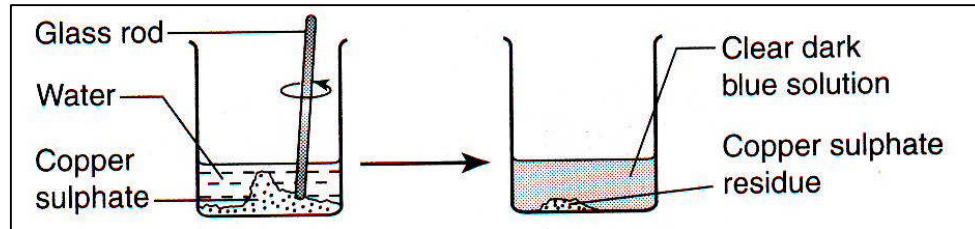


Diagram 10

Which of the following suggestions can make the remaining copper sulphate fully dissolve in the solution?

- P: Add more water to the solution
 Q: Apply heat to the solution
 R: Stir the water faster
 S: Add more copper sulphate to the solution

- A P and Q only
- B Q and R only
- C P, Q and R only
- D P, Q, R and S only

16 X is used in water treatment plant to reduce the acidity of water. Which of the following correctly represents X?

- A Alum
- B Fluorine
- C Slaked lime
- D Chlorine water

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- 17 Diagram 11 shows the different levels of water when the piston is pulled up.

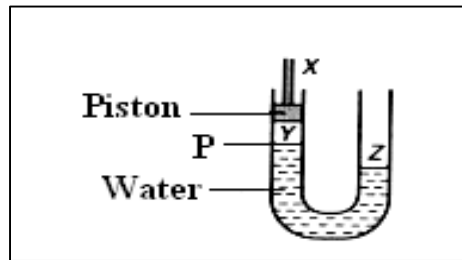


Diagram 11

Why does the water level at **P** rise when the piston is pulled up?

- A The air pressure at **X** is the same as the air pressure at **Y**.
 - B The air pressure at **Z** is the same as the air pressure at **X**.
 - C The air pressure at **Y** is higher than the air pressure at **X**.
 - D The air pressure at **Z** is higher than the air pressure at **Y**
- 18 The pressure of a gas in a container increases when
- A the gas changes to liquid
 - B the volume of the container is reduced
 - C the volume of the container is increased
 - D part of the gas is removed from the container
- 19 Diagram 12 shows a lift carried three passengers, each with a mass of 50kg, 60kg and 75kg respectively. The lift moved from ground floor to the top floor, through a vertical distance of 10m.

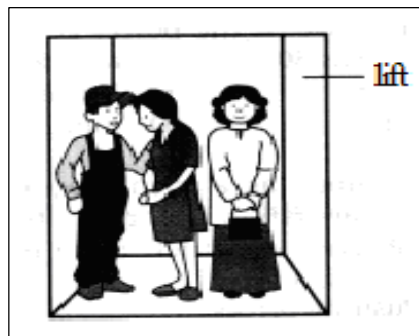


Diagram 12

Calculate the work done by the lift. (1kg=10N)

- A 185 J
- B 600 J
- C 1 850 J
- D 18 500 J

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20 Which of the following has the same unit as work?

- A Mass
- B Power
- C Energy
- D Gravity

21 Diagram 13 shows the classification of supporting systems in animals.

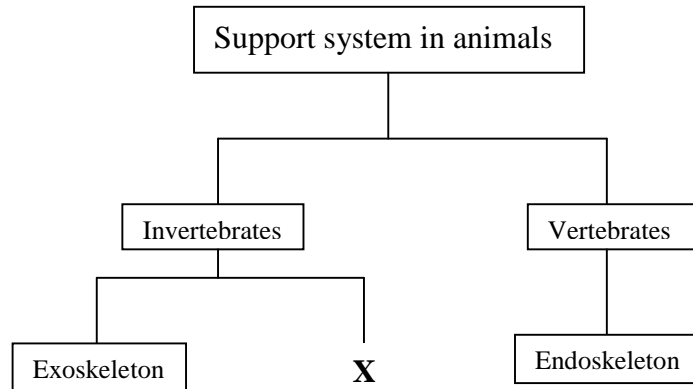


Diagram 13

Which of the following animals can be represented by X?

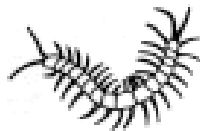
A



B



C



D



22 Aquatic plants are able to float in water because they

- A have large air spaces in their stems and leaves
- B have wax-like coating on their stems and leaves
- C produce a lot of oxygen which keeps them afloat
- D have small leaves and thin stem to keep themselves afloat

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23 Which of the following actions can increase stability?

- A Lengthen the legs of stools
- B Put heavy luggage on the roof of a bus
- C Put small stones into an empty flower vase
- D Put a ladder close to the wall while painting

24 Diagram 14 shows Fazli painting the wall of his house.

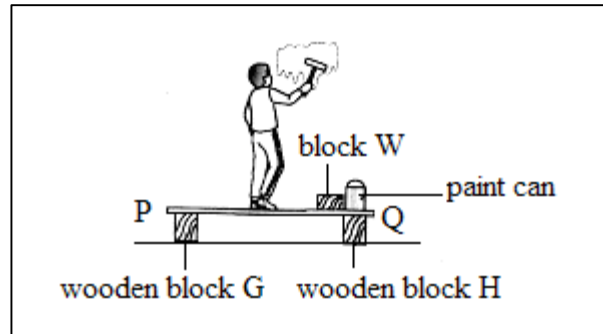


Diagram 14

Which of the following can make Fazli more stable?

- A Place wooden block W and a paint can on the floor
- B Place wooden block W in the middle of PQ and stand on it
- C Replace wooden block G and H with a taller wooden block
- D Move wooden block G towards P and wooden block H towards Q

25 Diagram 15 shows a lever.

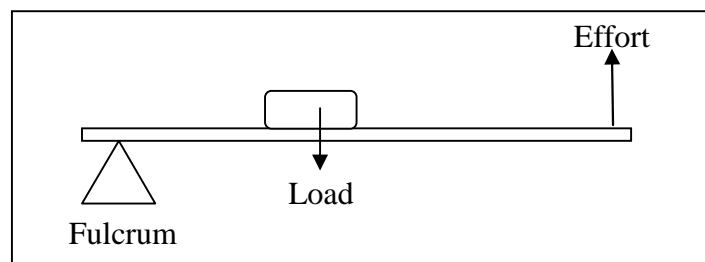


Diagram 15

Which of the following devices is the example of the above lever?

- A Scissor
- B Ice Tong
- C Fishing rod
- D Wheelbarrow

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- 26 Diagram 16 shows the passage of air in the human respiratory system.



Diagram 16

What is the characteristic of X to increase the rate of oxygen diffusion?

- A Thick wall
 - B Dry surface area
 - C One cell thick wall
 - D Surrounded by arteries
- 27 Diagram 17 shows a word equation of oxyhaemoglobin formation.

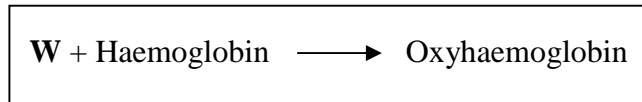


Diagram 17

Which of the following is represented by W?

- A Oxygen
 - B Hydrogen
 - C Carbon dioxide
 - D Carbon monoxide
- 28 Which statement is **TRUE** about oxygenated blood?
- A Dark red in colour
 - B Bright red in colour
 - C Rich in carbon dioxide
 - D Carried by vein except pulmonary vein

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29 Diagram 18 shows one of the excretory organs in human.

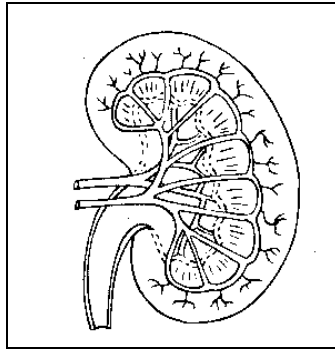


Diagram 18

What are the excretory products from the organ shown above?

- A Only water
- B Water and carbon dioxide
- C Water, mineral salts and urea
- D Water, mineral salts, glucose and urea

30 Diagram 19 shows the human reproductive cell.

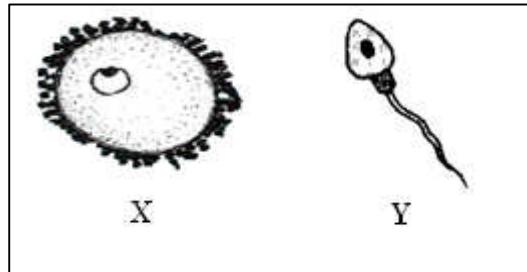


Diagram 19

Which of the following is correctly paired?

	X	Y
A	Able to move	Unable to move
B	Reproduces in testes	Reproduces in ovary
C	Life span up to 24 hours	Life span up to 72 hours
D	Produces millions in a day	Produces once in 28 days

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31 Diagram 20 shows about cross pollination.

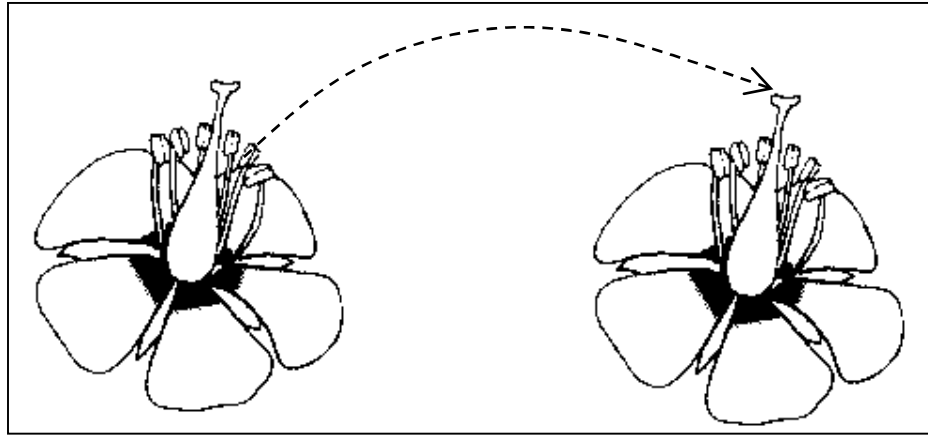


Diagram 20

Which statement is **TRUE** about the situation happened as shown on Diagram 20?

- A Less variety of plants
 - B More variety of plants
 - C Involves flowers of the same plant.
 - D Involves flowers from different plants and different species.
- 32 Mother's breast milk is ideal for a baby because it
- A is rich in fibre.
 - B supplies oxygen to the baby.
 - C contains high amount of iron.
 - D contains most nutrients needed by baby.

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- 33 Diagram 21 shows the set-up of an experiment to test the property of sand.

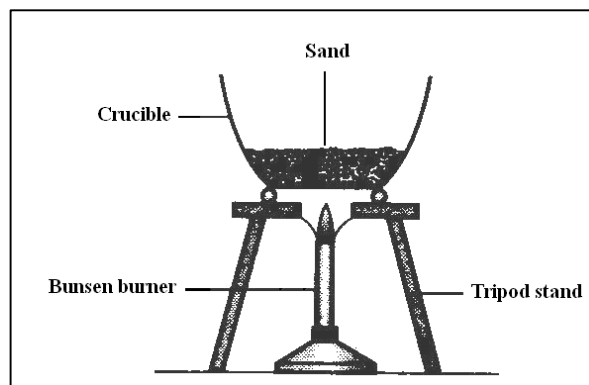


Diagram 21

What happens to the sand if it continues to be heated over fire?

- A It melts.
 - B It turns black.
 - C It remains unchanged.
 - D It decomposes into powder.
- 34 Diagram 22 shows an experiment to investigate the reaction between pieces of clam's shell and dilute hydrochloric acid.

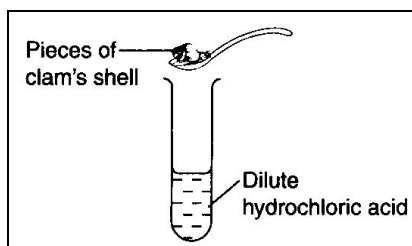


Diagram 22

What are the products of this reaction?

- A Calcium hydroxide + Water
- B Calcium carbonate + Carbon dioxide
- C Calcium oxide + Carbon dioxide + Water
- D Calcium chloride + Carbon dioxide + Water

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- 35 Diagram 23 shows a negatively-charged electroscope.

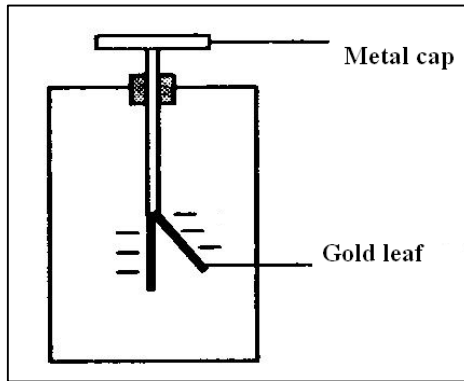


Diagram 23

What happens to the gold leaf when a positively-charged rod is brought near the metal cap?

- A There is no change.
 - B The gold leaf diverges further.
 - C The divergence of the gold leaf decreases.
 - D The divergence of the gold leaf increases and then decreases.
- 36 Diagram 24 shows a parallel circuit.

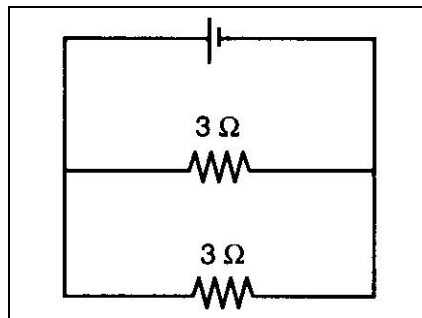


Diagram 24

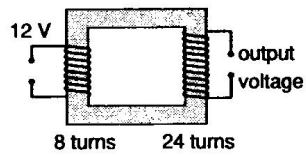
What is the total resistance of the circuit?

- A 3
- B 6
- C 1.5
- D 0.67

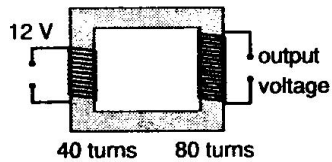
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37 Which step-up transformer will give the highest output voltage?

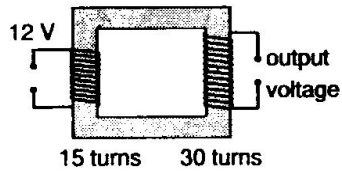
A



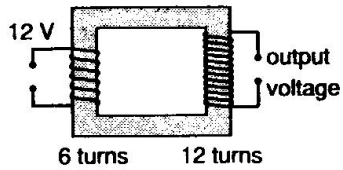
B



C



D



38 Diagram 25 shows a 3-pin plug.

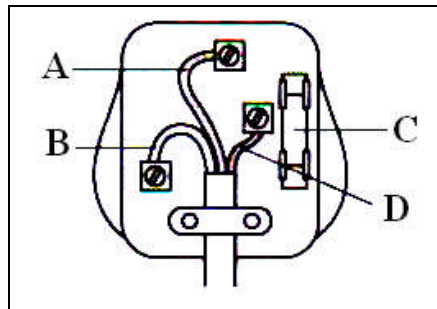


Diagram 25

Which of the parts labeled A, B, C and D, carries current back to the substation?

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- 39** Diagram 26 shows the stars and their respective colours.

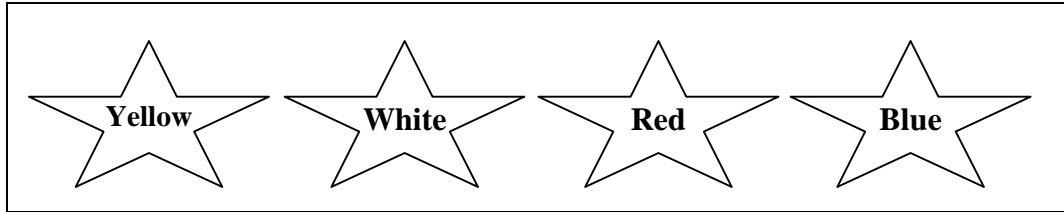


Diagram 26

Which of the following compares their temperatures in **descending** order?

- A** Red, yellow, white, blue
 - B** Red, white, yellow, blue
 - C** Blue, white, yellow, red
 - D** Blue, yellow, white, red
- 40** What is the nearest galaxy to the Milky Way?
- A** Andromeda galaxy
 - B** Triangulum galaxy
 - C** Sagittarius dwarf galaxy
 - D** Canis Major dwarf galaxy

END OF QUESTION PAPER

SULIT**INFORMATION FOR CANDIDATES**

1. This question paper consist of **40** questions.
2. Answer **all** questions.
3. Each question is followed by four alternative answers, **A, B, C** or **D**. For each question, choose one answer only. Blacken your answer on the objective answer sheet provided.
4. If you wish to change your answer, erase the blackened mark that you have made. Then blacken the new answer.
5. The diagrams in the questions provided are not drawn to scale unless stated.
6. You may use a non-programmable scientific calculator.