



BRITISH
COLUMBIA

Science 10
August 2005 Examination
Student Booklet

Student Instructions

1. Ensure that in addition to this **Student Booklet**, you have a **Response Form** and a **Data Booklet**.
2. This examination is designed to be completed in **two hours**. *Students may, however, take up to 30 minutes of additional time to finish.*
3. **All** answers must be entered on the **Response Form** using a pencil. Answers entered in this **Student Booklet** will not be marked.
4. At the end of the examination, return this **Student Booklet**, the **Response Form** and the **Data Booklet** to the supervisor.
5. **Disqualification** from the examination will result if you bring books (including dictionaries), paper, notes, or unauthorized electronic devices into the examination room.

INSTRUCTIONS: For each question, select the **best** answer and record your choice on the Response Form provided. Using a pencil, completely fill in the circle that has the letter corresponding to your answer.

LIFE SCIENCE**Cells and Genetics**

1. An animal cell will swell and get larger if it is placed in pure water.
 - A. True
 - B. False

2. Plant cells contain centrioles.
 - A. True
 - B. False

3. Cell membranes control the transfer of nutrients into a cell.
 - A. True
 - B. False

**Match each Term on the left with the best Descriptor on the right.
Each Descriptor may be used as often as necessary.**

Term	Descriptor
4. nucleus	A. stores water
5. cell wall	B. cellular respiration
6. cytoplasm	C. controls cell functions
	D. non-living material surrounding the cell
	E. carbon dioxide + water → sugar + oxygen
	F. the material in which organelles are suspended

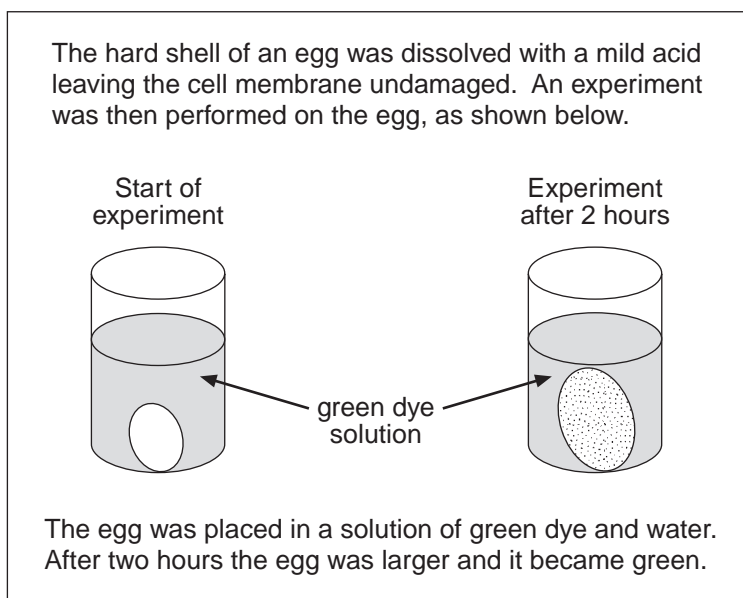
**Match each Term on the left with the best Descriptor on the right.
Each Descriptor may be used as often as necessary.**

Term	Descriptor
7. ribosome 8. chloroplast	A. photosynthesis B. joins chromatids C. location of protein building D. helps to provide support in a plant cell E. allows materials to enter and exit the cell

9. Vacuoles are to storage as mitochondria are to

- A. reproduction.
- B. cellular control.
- C. energy production.
- D. spindle fibre production.

Use the following diagram to answer question 10.

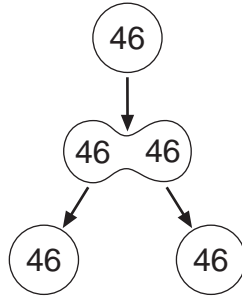


10. Why did the egg become green?

- A. The green dye reacted with the water.
- B. The green dye entered the egg by osmosis.
- C. The green dye entered the egg by diffusion.
- D. Water and the green dye entered the egg by osmosis.

11. Cells obtain nutrients from their surroundings. Which of the following conditions would enhance this process?
- A. a large cell volume
 - B. a smooth membrane
 - C. a large surface area to volume ratio
 - D. a small surface area to volume ratio
12. Which of the following describes the surface area to volume ratio of a shrinking cell?
- A. increasing
 - B. decreasing
 - C. remaining the same
 - D. increasing then decreasing
13. In the cell cycle, the duplication of DNA occurs in interphase.
- A. True
 - B. False

Use the following diagram to answer question 14.



14. What process is being illustrated?

- A. production of zygotes
 - B. production of egg cells
 - C. production of skin cells
 - D. production of sperm cells
-

15. Viruses can reproduce without a host cell.

- A. True
- B. False

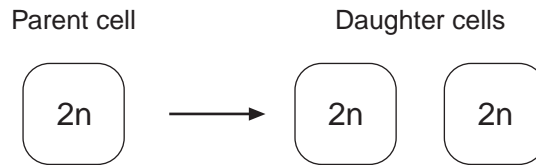
16. Human cells can benefit from chemicals produced by bacteria.

- A. True
- B. False

17. Which of the following is a disadvantage of sexual reproduction?

- A. All offspring are identical.
- B. Only one parent is required.
- C. Large numbers of offspring can be produced.
- D. Two parents are required to produce offspring.

18. Consider the following diagram.



The diagram illustrates asexual reproduction.

- A. True
 - B. False
19. If a human body cell has 92 chromosomes, which of the following errors occurred?
- A. The cell failed to divide in telophase.
 - B. The chromatids failed to separate in anaphase.
 - C. The chromatids failed to replicate in interphase.
 - D. The chromatids failed to line up at the equator in metaphase.
20. Which of the following identify genotype?

I	TT
II	short-haired cat
III	the genes for a particular trait
IV	the physical appearance of an organism

- A. I and III only
 - B. I and IV only
 - C. II and III only
 - D. II and IV only
21. A homozygous tall plant is crossed with a homozygous short plant. If the tall gene is dominant, which of the following describes the offspring?
- A. all tall
 - B. all short
 - C. all purebred
 - D. half tall, half short

22. Which of the following conditions **must** be present for a recessive trait to be expressed?

- A. one recessive gene
- B. one dominant gene
- C. two recessive genes
- D. two dominant genes

23. Which of the following shows a homozygous–heterozygous cross?

A.

	Q	Q
Q	QQ	QQ
Q	QQ	QQ

B.

	Q	Q
q	Qq	Qq
q	Qq	Qq

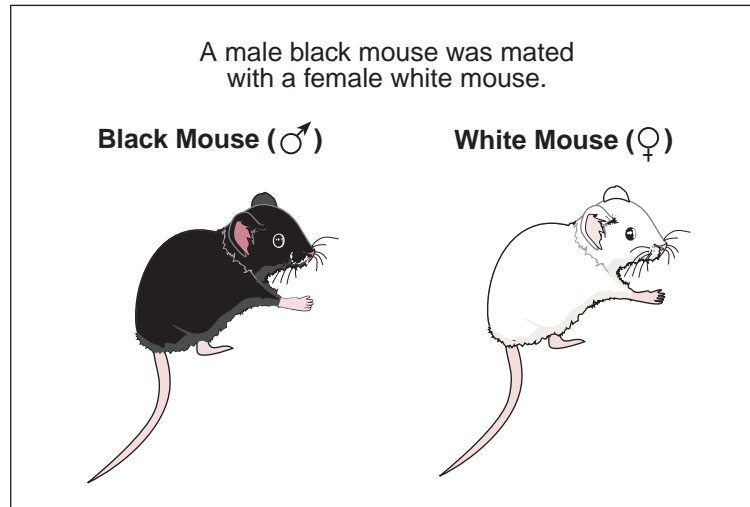
C.

	Q	q
Q	QQ	Qq
q	Qq	qq

D.

	Q	Q
Q	QQ	QQ
q	Qq	Qq

Use the following information to answer question 24.



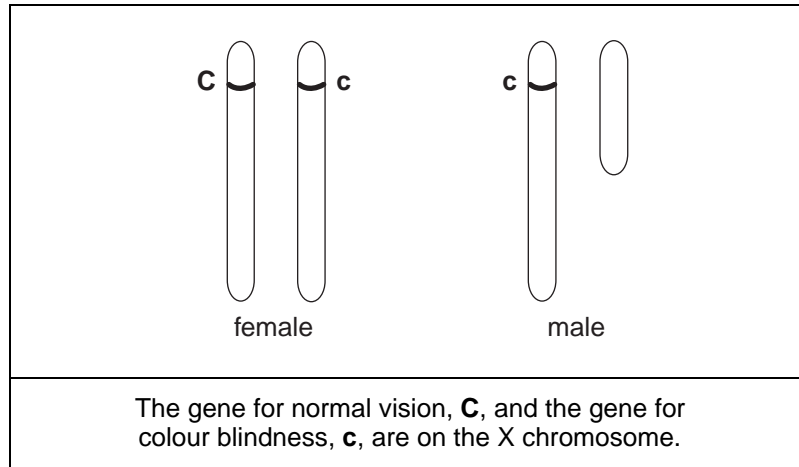
24. Which of the following describes the genotype of the female parent if she can only produce white offspring?

- A. heterozygous only
 - B. homozygous recessive only
 - C. homozygous dominant only
 - D. homozygous dominant or heterozygous
-

25. In codominance, heterozygous individuals have both phenotypes.

- A. True
- B. False

Use the following diagram to answer question 26.

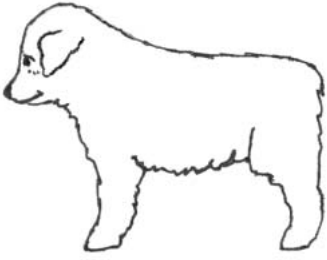


26. A woman who is heterozygous for colour blindness and a man with colour blindness are considering having children. What is the probability of having a child who is **both** male and colour-blind?
- A. 100%
 - B. 75%
 - C. 25%
 - D. 0%

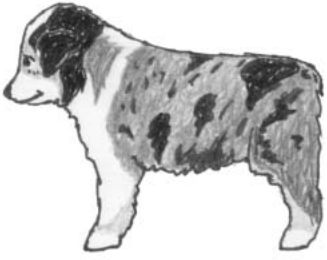
Use the following information to answer question 27.

Australian Shepherd dogs

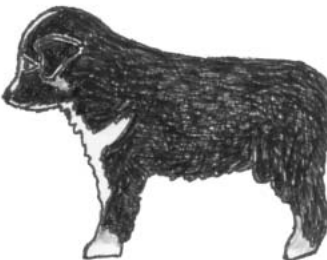
Australian Shepherd dogs have white coats, merled coats or tricolour coats.
Homozygous dominant dogs are white and have serious eye disorders.



white (MM)
with serious eye disorders



merle (Mm)
with normal eyes



tricolour (mm)
with normal eyes

27. A litter of Australian Shepherd puppies is 50% merle and 50% tricolour.
What combination of parents produced them?
- A. $mm \times mm$
 - B. $MM \times mm$
 - C. $Mm \times Mm$
 - D. $Mm \times mm$
-

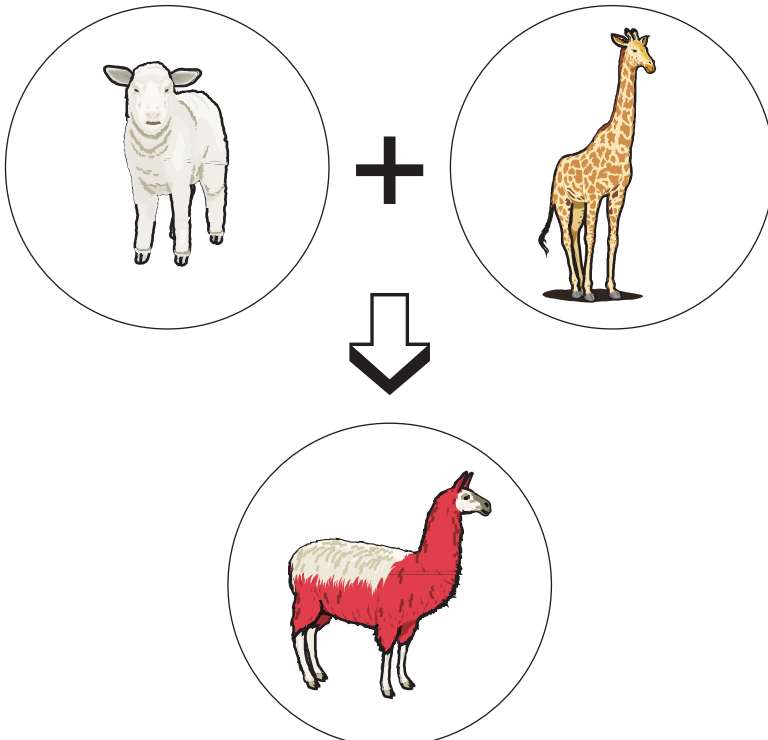
28. A boy inherits one allele for a trait from his mother.
- A. True
 - B. False

29. DDT is a pesticide that was used to kill mosquitoes in the 1950s.
The first DDT resistant mosquitoes were discovered in 1959.

DDT resistance is a negative mutation for mosquitoes.

- A. True
- B. False

Use the following fictitious information to answer question 30.



Auckland, New Zealand (Grape Press)

Geneticists at Schmeck Tech biological research company claimed that after three years of trying, they have successfully completed the first combination of a sheep and a giraffe. The purpose was to generate wool to make sweaters for really tall people. The president of Schmeck Tech unveiled the new animal at a press conference in Auckland, and explained the procedure:

“Genetic information was exchanged between the species by implanting giraffe nuclear material into the egg of a sheep. The hybrid egg was then placed into a female sheep. A healthy baby was born three months later.”

Geneticists from around the world believe the announcement to be a hoax, but will reserve judgment until the process can be repeated. Shepherds from the Interior of BC remain “cautiously optimistic.”

30. Which of the following is the **best reason** why other geneticists should remain skeptical about Schmeck Tech’s claims?
- A. Other geneticists have not yet repeated the process.
 - B. The two species crossed did not look anything alike.
 - C. The two species originate from different parts of the world.
 - D. A female of any species can only reproduce using its own egg.

**REFER TO
DATA BOOKLET**

For this section of the examination, refer to:

- Names, Formulae and Charges of Some Common Ions on page 1
- Alphabetical Listing of the Elements on page 2
- The Periodic Table on page 3

31. The nucleus of an atom contains electrons, protons and neutrons.
- A. True
B. False
32. Which atom will produce an ion with 21 protons, 24 neutrons and 18 electrons?
- A. argon
B. rhodium
C. scandium
D. chromium

Use the following information to answer question 33.

27	?	? represents the symbol of the element
13		

33. Which of the following is true about the neutral atom of the element?

I	The element is cobalt.
II	The element has 27 protons.
III	The element has 14 neutrons.
IV	The element has 13 electrons.

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

34. In which of the following compounds does iron have the same ion charge (combining capacity)?

I	FeS
II	Fe(OH) ₂
III	FeCrO ₄
IV	Fe ₂ (CO ₃) ₃

- A. I and II only
B. I, II and III only
C. II, III and IV only
D. I, II, III and IV
35. Which neutral atom has 22 neutrons and 18 electrons?

- A. argon
B. titanium
C. beryllium
D. zirconium

36. Which of the following statements about Be²⁺ are true?

I	It symbolizes an ion.
II	It symbolizes an atom.
III	Beryllium has lost electrons.
IV	Beryllium has gained electrons.

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

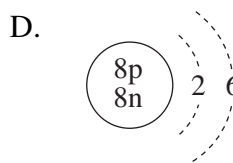
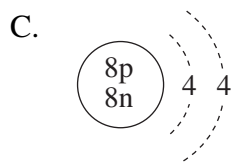
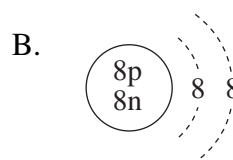
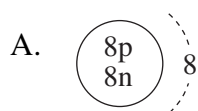
37. Different isotopes of an element have different numbers of neutrons.

- A. True
- B. False

38. Carbon-12 and Carbon-14 have the same number of protons.

- A. True
- B. False

39. Which of the following represents the Bohr model for an oxygen atom?



40. Halogens do not combine easily with metals.

- A. True
- B. False

41. The formula P_4 represents a polyatomic ion.

- A. True
- B. False

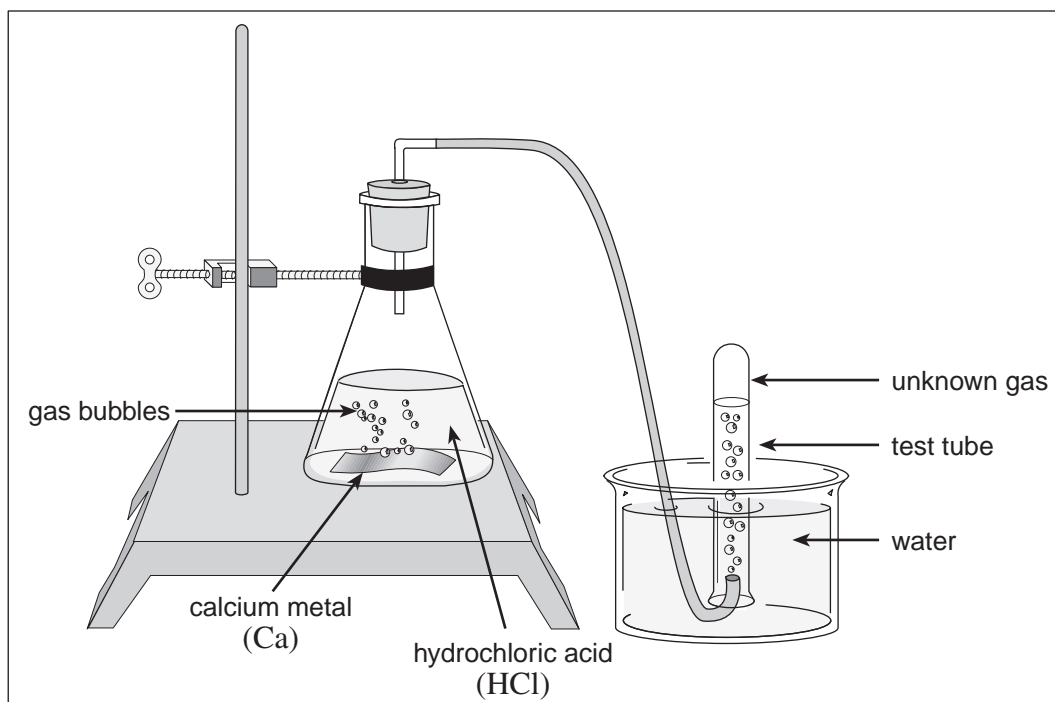
42. What is the formula for lithium oxide?
- A. LiO
 - B. Li₂O
 - C. LiO₂
 - D. Li₂O₂
43. What is the chemical formula for chromium (III) nitrite?
- A. Cr₃NO₂
 - B. Cr₃(NO)₃
 - C. Cr(NO₂)₃
 - D. Cr(NO₃)₃
44. What is the name of the compound Sn(SO₄)₂?
- A. tin sulphate
 - B. tin (I) sulphate
 - C. tin (II) sulphate
 - D. tin (IV) sulphate
45. Nitrogen trihydride is a covalent compound.
- A. True
 - B. False
46. The formula KMnO₄ represents a covalent compound.
- A. True
 - B. False

For the chemical compound hydrogen chlorate, match the Element on the left with the Number of Atoms on the right.



Element	Number of Atoms
47. oxygen	A. 1
48. chlorine	B. 2
	C. 3
	D. 5

Use the following diagram to answer question 49.



49. What is the balanced equation for the reaction?

- A. $\text{Ca} + \text{Cl}_2 \rightarrow \text{CaCl}_2$
- B. $\text{Ca} + 2\text{HCl} \rightarrow \text{H}_2 + \text{CaCl}_2$
- C. $\text{Ca} + 2\text{HCl} \rightarrow \text{CaH}_2 + \text{Cl}_2$
- D. $2\text{Ca} + 2\text{H}_2\text{O} \rightarrow \text{O}_2 + 2\text{CaH}_2$

50. Which of the following represents a decomposition reaction?

- A. $\text{H}_2 + \text{Cl}_2 \rightarrow 2\text{HCl}$
- B. $2\text{KClO}_3 \rightarrow 2\text{KCl} + 3\text{O}_2$
- C. $\text{Ca} + 2\text{HCl} \rightarrow \text{CaCl}_2 + \text{H}_2$
- D. $\text{AgNO}_3 + \text{KCl} \rightarrow \text{AgCl} + \text{KNO}_3$

Match each Chemical Reaction on the left with the best Reaction Type on the right.
Each Reaction Type may be used as often as necessary.

Chemical Reaction	Reaction Type
51. $\text{HCl} + \text{NaOH} \rightarrow \text{NaCl} + \text{H}_2\text{O}$	A. synthesis
52. $\text{Mg}(\text{NO}_3)_2 + 2\text{NaOH} \rightarrow 2\text{NaNO}_3 + \text{Mg}(\text{OH})_2$	B. neutralization
53. $2\text{Al} + \text{Fe}_2\text{O}_3 \rightarrow \text{Al}_2\text{O}_3 + 2\text{Fe}$	C. decomposition
	D. single replacement
	E. double replacement

PHYSICAL SCIENCE **Electricity and Magnetism**

**REFER TO
DATA BOOKLET**

For this section of the examination, refer to:

- Units and Abbreviations on page 4
- Formulae on page 4
- The Electromagnetic Spectrum on page 6

54. Two neutral objects will repel each other.

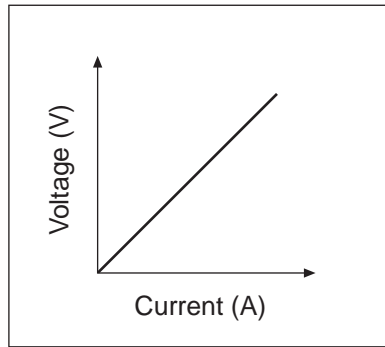
- A. True
- B. False

Use the following information to answer question 55.

A student walks across a thick carpet wearing socks on her feet. The air in the room is dry. As she reaches for a doorknob, she immediately experiences an electric shock in her hand.

55. The student is negatively charged.
- A. This statement is supported by the information.
 - B. This statement is refuted by the information.
 - C. This statement is neither supported nor refuted by the information.
-
56. Which of the following is neutral?
- A. proton
 - B. neutron
 - C. nucleus
 - D. electron
57. A hydrochloric acid solution will conduct electricity.
- A. True
 - B. False
58. A series circuit has more than one conducting pathway for the current.
- A. True
 - B. False
59. A battery with two cells in series supplies less voltage than a battery with the same two cells in parallel.
- A. True
 - B. False

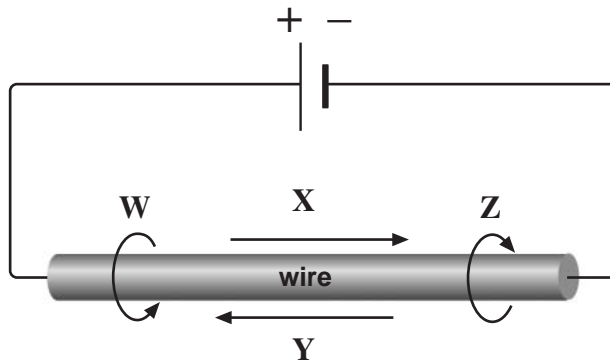
Use the following graph to answer question 60.



60. Which of the following does the slope of the graph represent?

- A. work
- B. power
- C. energy
- D. resistance

61. The following diagram shows a circuit with a section of the wire magnified.



Which arrow represents the direction of conventional current in the wire?

- A. W
- B. X
- C. Y
- D. Z

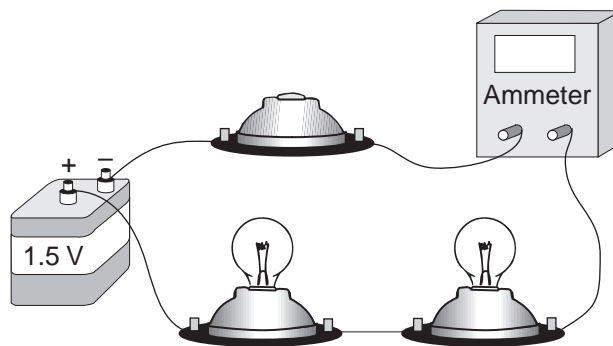
62. Which of the following is created when a bar magnet is moved inside a solenoid?

- A. a static charge in the solenoid
- B. a static charge in the bar magnet
- C. an electric current through the solenoid
- D. an electric current through the bar magnet

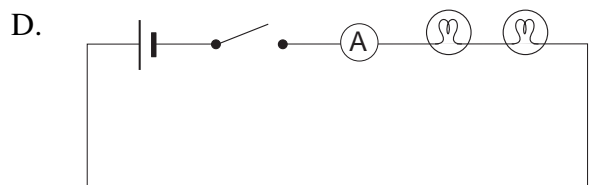
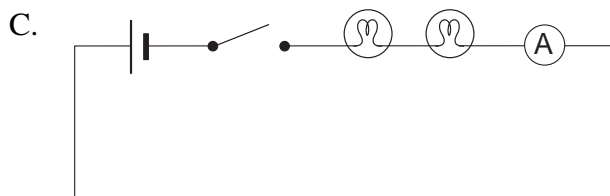
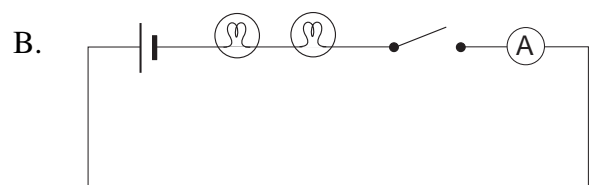
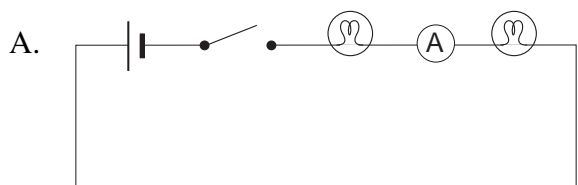
63. Increasing the current through a solenoid will decrease the strength of the magnetic field.
- A. True
B. False

64. Magnetic field lines **outside** a permanent magnet point from the north end of the magnet to the south end of the magnet.
- A. True
B. False

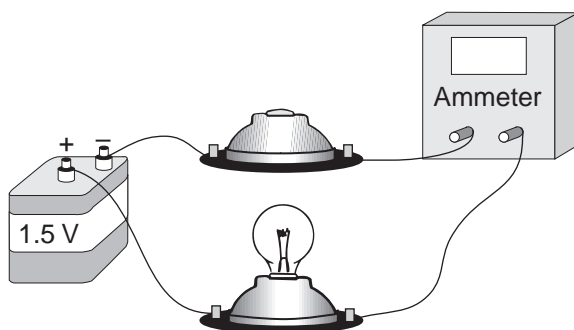
Use the following diagram to answer question 65.



65. Which circuit diagram represents the illustration?

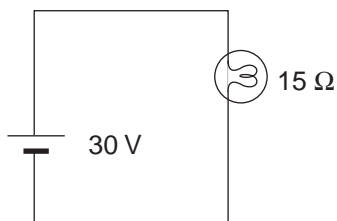


Use the following diagram to answer question 66.



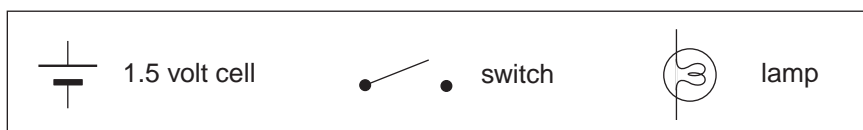
66. If 0.2 A is flowing in the circuit, what is the resistance of the light bulb?
- A. 0.3 Ω
 - B. 0.75 Ω
 - C. 3 Ω
 - D. 7.5 Ω

Use the following circuit diagram to answer question 67.

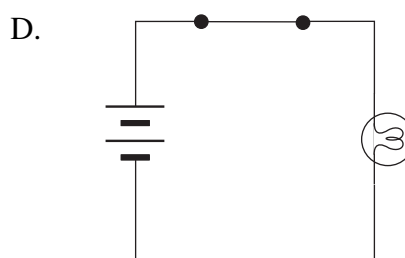
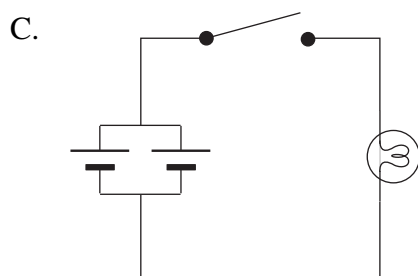
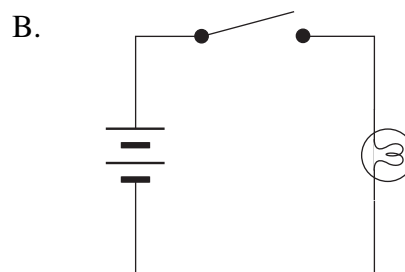
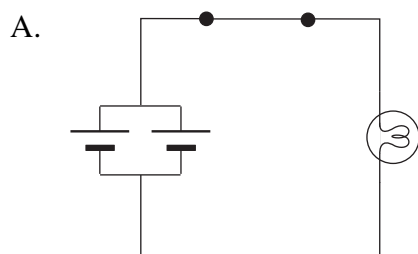


67. What is the current in the circuit?
- A. 1.5 A
 - B. 2.0 A
 - C. 4.5 A
 - D. 450 A

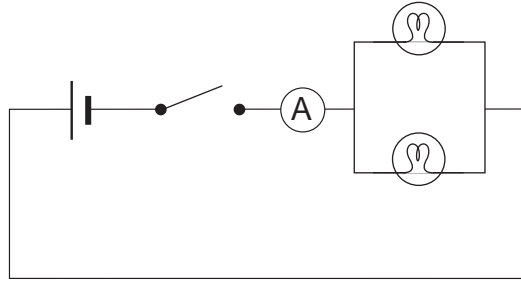
Use the following information to answer question 68.



68. In which diagram would the bulb shine the brightest?



Use the following circuit to answer question 69.



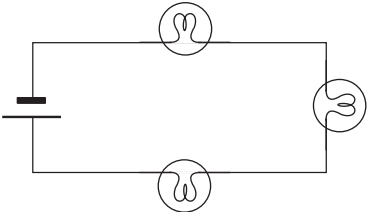
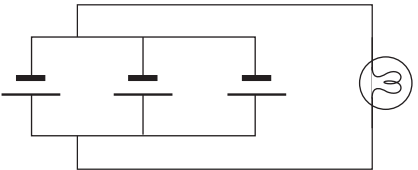
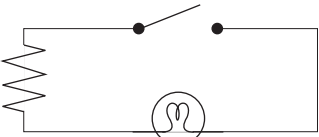

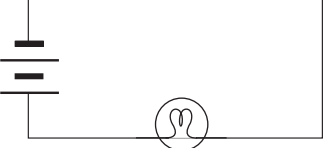
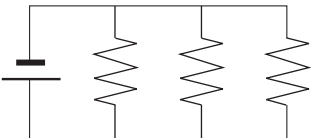
69. The ammeter, A, is correctly connected to measure the total current of the circuit when the switch is closed.

- A. True
 - B. False
-

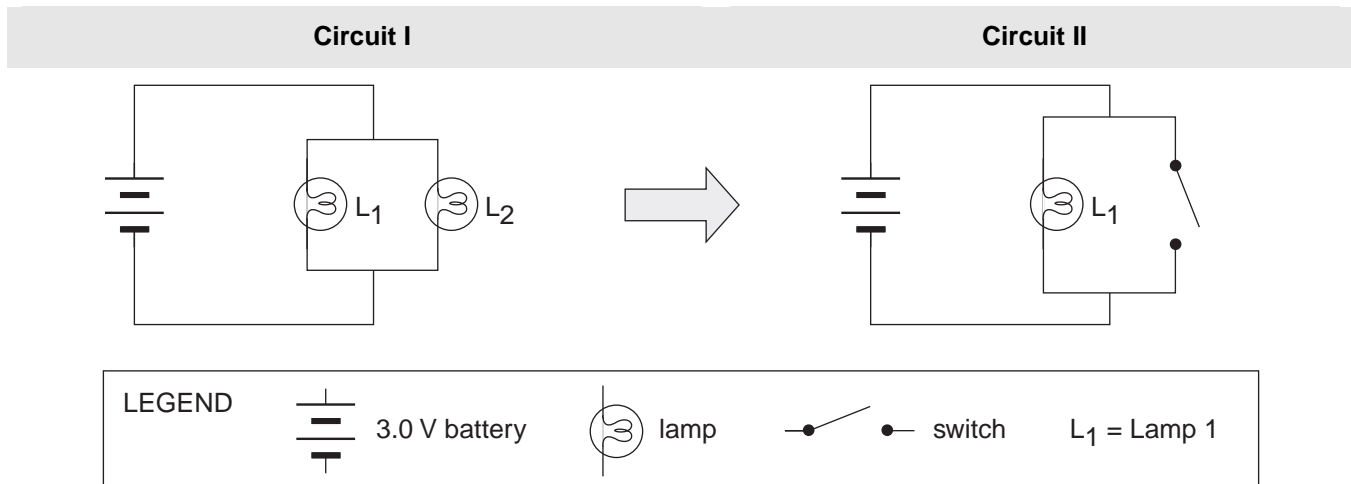
70. A voltmeter measures the flow of current through a circuit.

- A. True
- B. False

**Match each Description on the left with the Circuit on the right.
Each Circuit may be used as often as necessary.**

Description	Circuit
<p>71. Three cells in series.</p> <p>72. Three cells in parallel.</p> <p>73. Three resistors in series.</p> <p>74. Three resistors in parallel.</p> <p>75. A circuit in which no current is flowing.</p>	<p>A. </p> <p>B. </p> <p>C. </p> <p>D. </p> <p>E. </p> <p>F. </p>

Use the following circuit diagrams to answer question 76.



76. What will happen to the voltage reading across Lamp 1, if Lamp 2 is replaced with an open switch?
- The reading will double.
 - The reading will become zero.
 - The reading will stay the same.
 - The reading will decrease by half.
-
77. A unit of energy is the kilowatt.
- True
 - False
78. A 120 V appliance draws 20 A of current. How much electrical energy does the appliance use in 2.0 hours?
- 2 400 J
 - 4 800 J
 - 288 000 J
 - 17 280 000 J

79. A 240 V appliance draws 20 A of current. If electricity costs $\$0.065/\text{kW}\cdot\text{h}$, how much does it cost to leave the appliance operating for 4.5 hours?
- A. \$0.31
 - B. \$1.40
 - C. \$69.33
 - D. \$312.00

Use the following information to answer question 80.

Circuit I	Circuit II
The voltage across a resistor is 15 V and there is a 4 A current flowing through it.	The energy consumed by a light bulb is 3600 J in 60 seconds.

80. Which of the following correctly compares the power of Circuit I and Circuit II?
- A. The power of Circuit I is greater.
 - B. The power of Circuit II is greater.
 - C. The power of both circuits is equal.
 - D. The relationship cannot be determined from the information given.
-
81. Which of the following is the best estimate of the energy used by a 100 W light bulb that is used to light a porch 12 hours per night for a month?
- A. 4 kW·h
 - B. 40 kW·h
 - C. 400 kW·h
 - D. 4000 kW·h
82. A step-down transformer is used at a power generating station before transmitting electricity over long distances.
- A. True
 - B. False

83. A 12 V, 5 A motor takes 120 minutes to do a job. A 120 V, 8 A motor takes 5 minutes to do the same job. Which motor uses the least energy and by how much?
- A. The 12 V motor uses 60 kW·h less energy.
 - B. The 120 V motor uses 60 kW·h less energy.
 - C. The 12 V motor uses 0.04 kW·h less energy.
 - D. The 120 V motor uses 0.04 kW·h less energy.

PHYSICAL SCIENCE

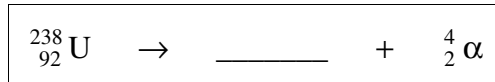
Radioactivity

**REFER TO
DATA BOOKLET**

For this section of the examination, refer to:

- The Periodic Table on page 3
- The Electromagnetic Spectrum on page 6
- Common Isotope Pairs on page 6

84. Microwaves have shorter wavelengths than visible light.
- A. True
 - B. False
85. Short-wave radio waves have a lower frequency than ultraviolet light.
- A. True
 - B. False
86. Consider the following nuclear equation.



The missing decay product in the equation is thorium-242.

- A. True
- B. False

87. Which of the following describes the changes that take place in the nucleus of an atom as a result of alpha (α) decay?

	Number of Protons	Number of Neutrons
A.	decrease by 2	decrease by 4
B.	decrease by 2	decrease by 2
C.	increase by 1	decrease by 1
D.	increase by 2	decrease by 2

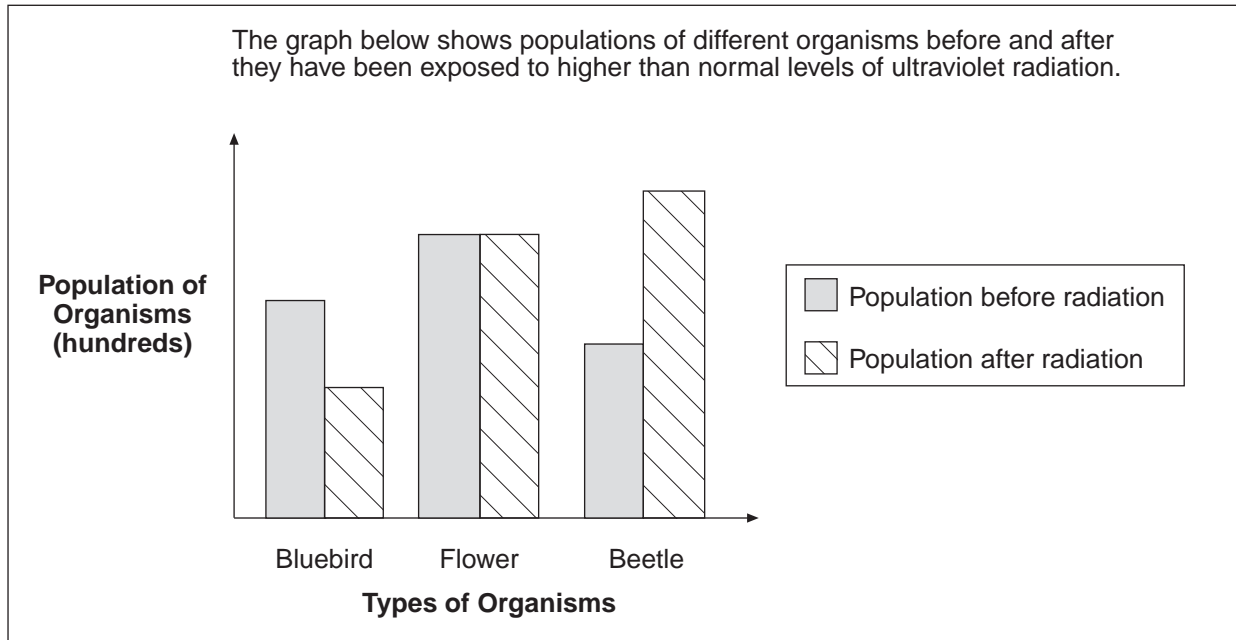
88. Which of the following is part of the electromagnetic spectrum?

- A. sound
- B. red light
- C. electricity
- D. seismic waves

89. Iodine-131 has a half-life of 8 days. If a sample contained 20 g of Iodine-131, how many grams would remain in 16 days?

- A. 1.25 g
- B. 2.5 g
- C. 5 g
- D. 10 g

Use the following graph to answer question 90.



90. The result of the radiation was an increase in the bluebird population.
- A. This statement is supported by the graph.
 - B. This statement is refuted by the graph.
 - C. This statement is neither supported nor refuted by the graph.

EARTH AND SPACE SCIENCE

Earth Forces

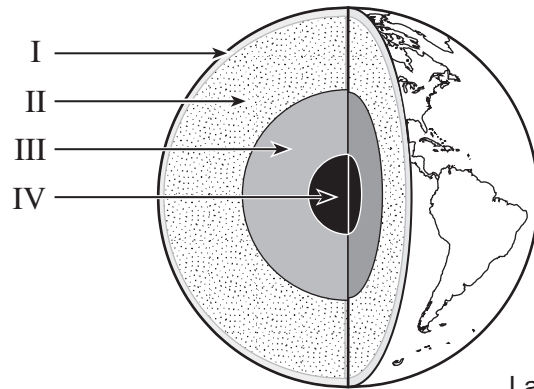
**REFER TO
DATA BOOKLET**

For this section of the examination, refer to:

- **Geologic Time Scale on page 5**
- **Common Isotope Pairs Chart on page 6**
- **Tectonic Plate Boundaries Map on page 7**
- **Map of the Pacific Coast of North America on page 8**

91. The interpretation of earthquake waves is an application of seismology.
- A. True
 - B. False
92. S-waves will travel through the molten outer core of the Earth.
- A. True
 - B. False

Use the following cross-sectional diagram of the Earth's layers to answer questions 93 and 94.



Layers not drawn to scale

Match each Layer on the left with the best Number from the Diagram on the right.

Layer	Number from Diagram
93. outer core	A. I
94. mantle	B. II C. III D. IV

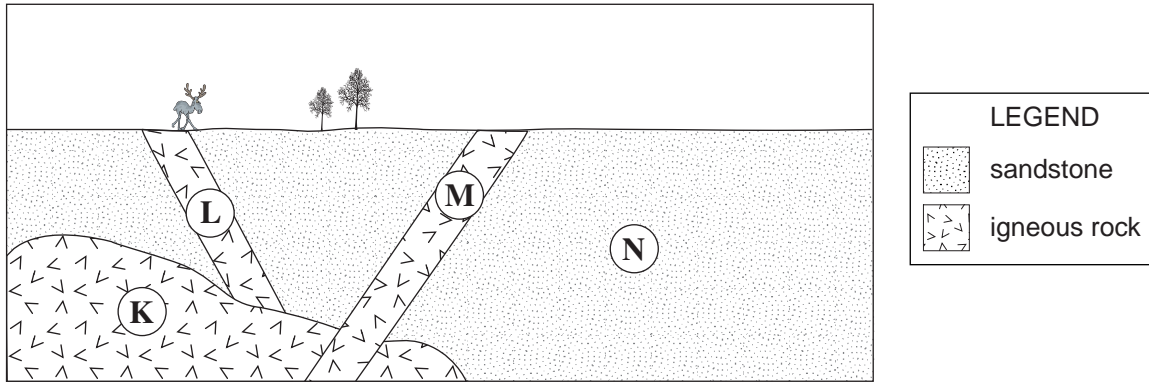
95. Why does the Precambrian Era have no subdivisions?
- A. It is too short a time period.
 - B. There is very little rock that old.
 - C. Few fossils are found from that period of time.
 - D. Rocks from that long ago are difficult to radiometrically date.

96. Paleozoic fossils represent ancient life forms.
- A. True
 - B. False

Match each Item on the left with the best Era on the right. Each Era may be used as often as necessary.	
Item	Era
97. formation of the Himalaya Mountains	A. Cenozoic
98. formation of the Grand Canyon	B. Mesozoic
99. appearance of oxygen in the atmosphere	C. Paleozoic
	D. Precambrian

100. Fossils of reptiles and trilobites are found in Paleozoic rock.
- A. True
 - B. False
101. The cross-cutting rule states that in any undisturbed sedimentary layers the oldest layers will be on the bottom and the youngest layers will be on the top.
- A. True
 - B. False
102. Relative age dating of fossils is often done using Carbon-14 isotopes.
- A. True
 - B. False

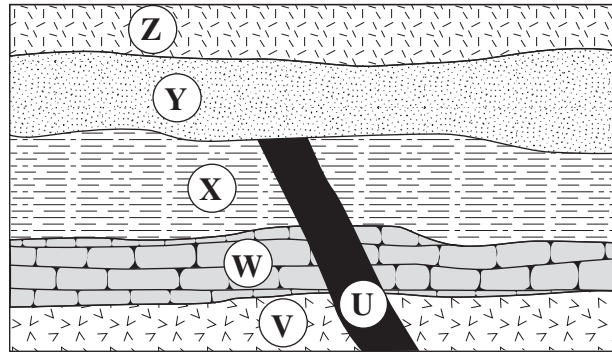
Use the following diagram of a geological cross-section to answer question 103.



103. Which of the following shows the correct order of events shown in the diagram?

	oldest	—————→	youngest	
A.	L	N	K	M
B.	L	K	M	N
C.	N	L	K	M
D.	N	M	L	K

Use the following diagram to answer questions 104 and 105.



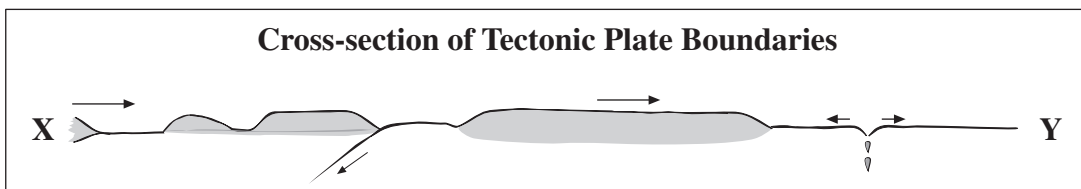
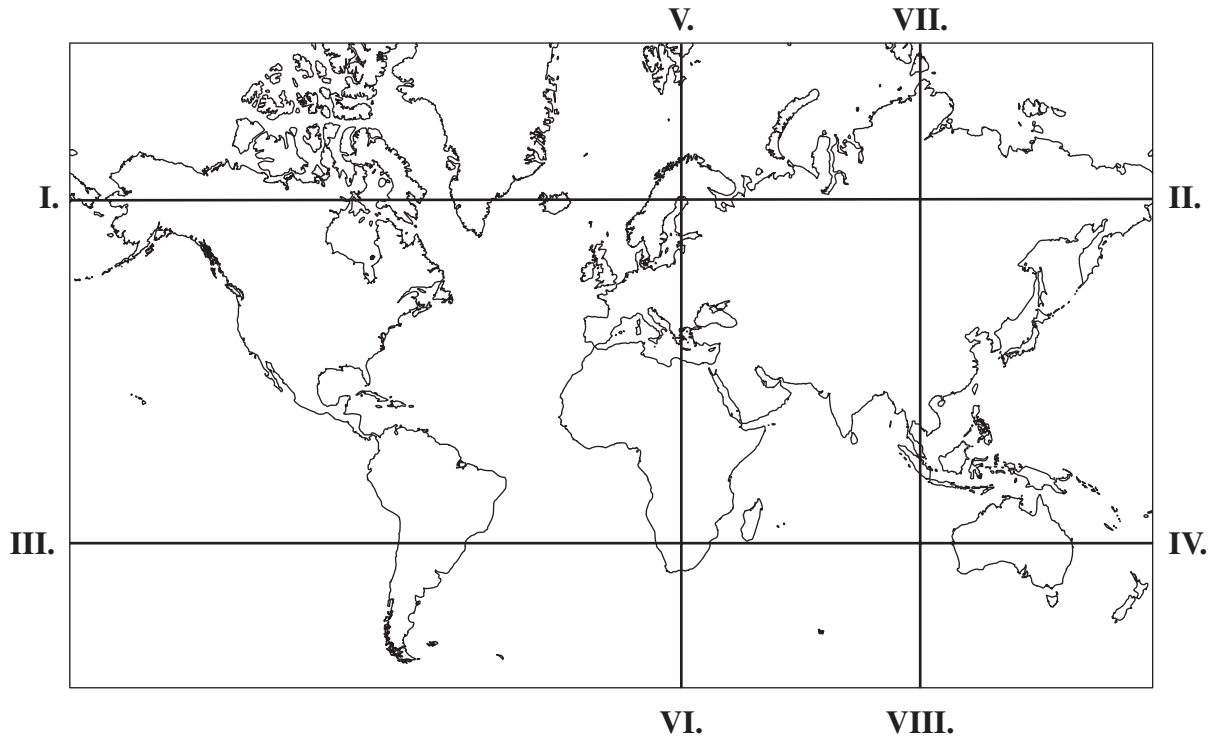
104. The statement “Formation **U** is younger than formation **X**” is an example of relative dating.

- A. True
- B. False

105. Erosion has occurred between layers **W** and **X**.

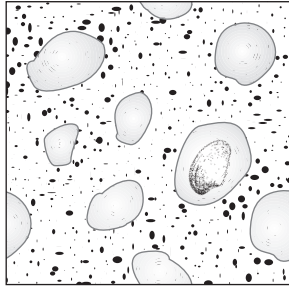
- A. True
- B. False

Use the following map and illustration to answer question 106.



106. Which of the cross-section lines on the world map matches the cross-section of tectonic plate boundaries illustrated by X-Y?
- A. I-II
 - B. III-IV
 - C. V-VI
 - D. VII-VIII

Use the following illustration to answer question 107.



107. A conglomerate is made up of a variety of pebbles cemented together. Carboniferous fossils are found in some of the limestone pebbles. What can be concluded about the age of the conglomerate?

- A. The conglomerate is older than the Carboniferous fossil.
 - B. The conglomerate is younger than the Carboniferous fossil.
 - C. The conglomerate is the same age as the Carboniferous fossil.
 - D. The age of the conglomerate cannot be determined from the information given.
-

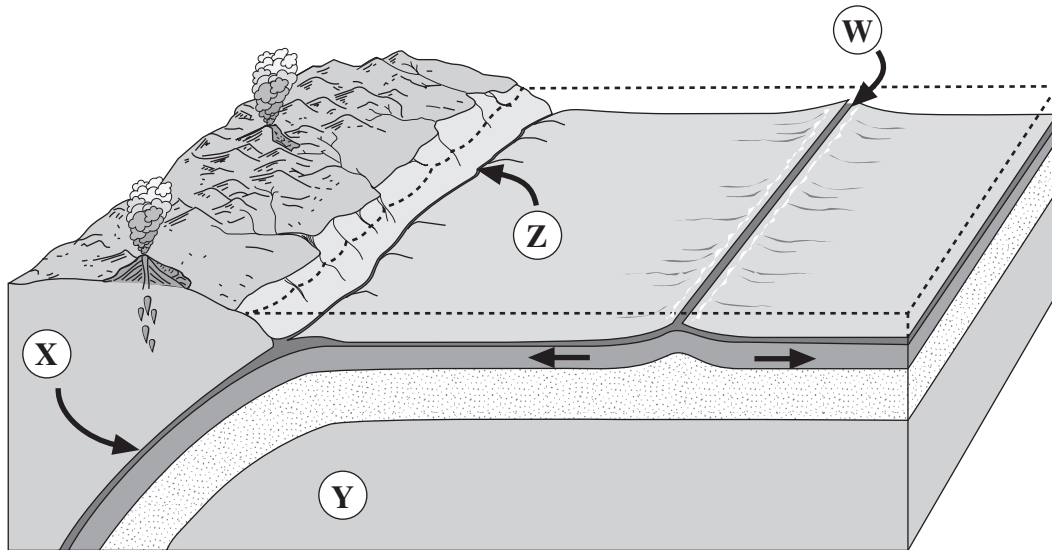
108. Where do deep earthquakes occur?

- A. transform faults
- B. mid-ocean ridges
- C. subduction zones
- D. divergent plate boundaries

109. Tectonic plates are made up of the Earth's uppermost mantle and crust.

- A. True
- B. False

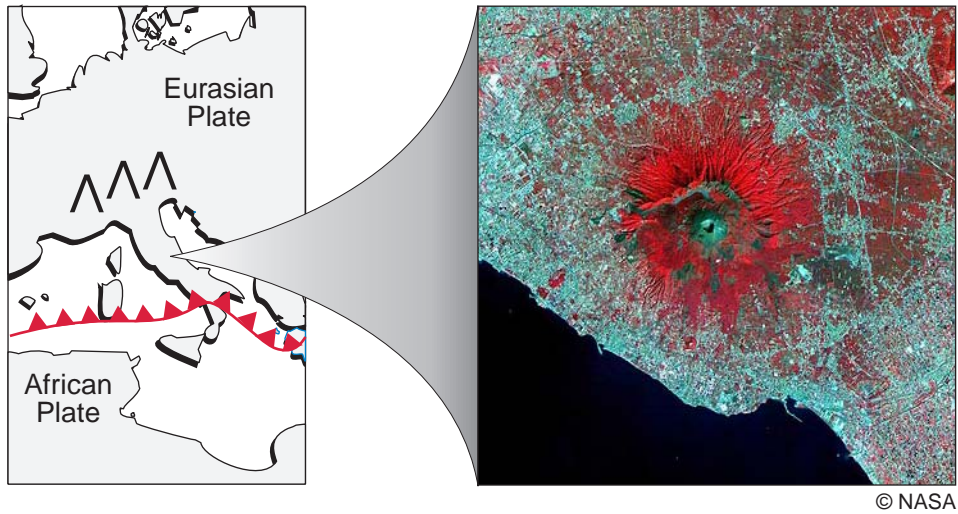
Use the following diagram of a cross-section of plate boundaries to answer question 110.



110. Which letter shows an oceanic-oceanic divergent plate boundary?

- A. W
- B. X
- C. Y
- D. Z

Use the following map and photograph of Mt. Vesuvius and the city of Naples, Italy, to answer question 111.



111. Which of the following explains why this volcano is still considered active?
- A. It is an oceanic-oceanic convergent plate boundary.
 - B. It is one of a chain of volcanoes related to a hot spot.
 - C. It is at a continental-oceanic divergent plate boundary.
 - D. It is on a subduction zone at a convergent plate boundary.

Use the following map and photograph of the volcano Mt. Rainier, and the city of Seattle along the Coast of North America, to answer question 112.

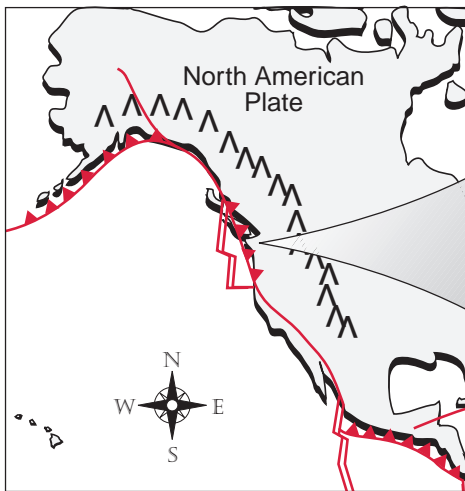


Image by Martin Miller copyright © United States Geological Survey
courtesy of Earth Science World ImageBank

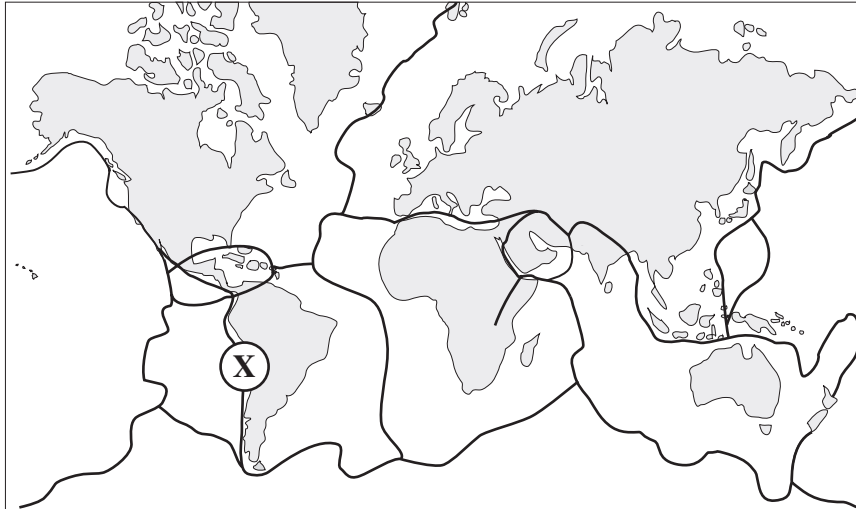
112. Which of the following explains the presence of the volcano behind the city of Seattle?

- A. an oceanic-continental transform plate boundary
- B. an oceanic-continental convergent plate boundary
- C. a continental-continental divergent plate boundary
- D. a continental-continental convergent plate boundary

113. Which of the following results from the opposing movement of the Pacific Plate and the North American Plate at an oceanic-oceanic transform plate boundary?

- A. Denali fault
- B. San Andreas fault
- C. Juan de Fuca ridge
- D. Queen Charlotte fault

Use the following map to answer question 114.



114. An ocean trench results from the plate boundary located at **X**.

- A. True
 - B. False
-

115. Where does the Earth's crust sink into the mantle?

- A. at transform faults
- B. at subduction zones
- C. at all divergent plate boundaries
- D. at all convergent plate boundaries

Use the following image and map of the Galapagos Islands to answer questions 116 and 117.

Satellite image from an altitude of 705 km



© NASA



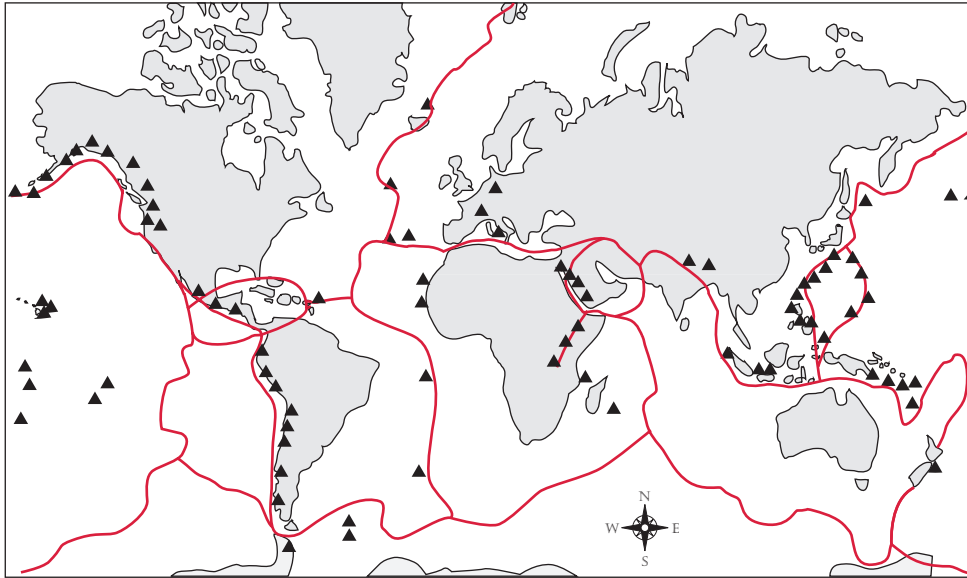
116. As a result of the Galapagos Islands forming over a hot spot, which of the following is true?

- A. The youngest island is the island closest to South America.
- B. The ages of the individual islands vary in no particular order.
- C. The youngest island is the island farthest from South America.
- D. All the islands formed at the same time and have the same age.

117. What technique was used to produce the image next to the location map?

- A. mapping
- B. seismology
- C. remote sensing
- D. geological field work

Use the following map to answer question 118.

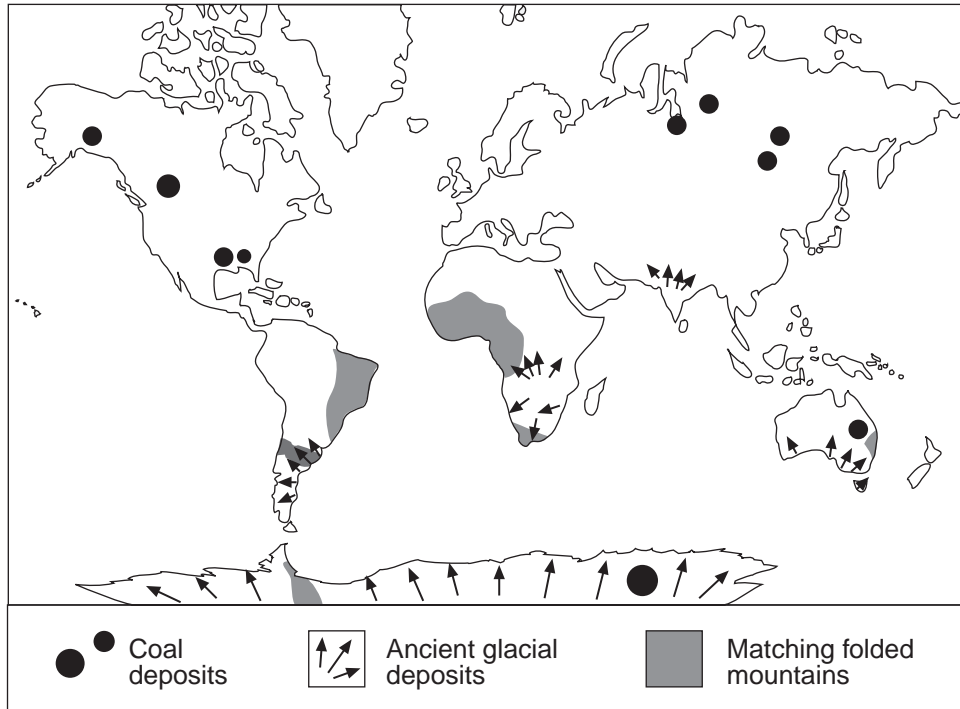


© Hawaii Natural History Association

Global distribution of volcanoes (▲) and earthquakes (—) based on Simkin and others (1989)

118. Which of the following explains the pattern of the volcano locations?
- A. Volcanoes are responsible for plate tectonics.
 - B. Volcanoes only occur at transform boundaries.
 - C. Most volcanoes occur at divergent and convergent plate boundaries.
 - D. Volcanoes always occur at divergent and convergent plate boundaries.

Use the following map of geological features to answer question 119.



119. Which of the following can be inferred from the geological features in the diagram?

- A. Coal deposits form in cold climates.
- B. Glacial deposits do not occur in Africa.
- C. The folded mountains were formed by volcanoes.
- D. The continents were once together but have moved apart.

120. What may occur as a direct result of volcanic eruptions?

- A. the formation of new land
- B. new sources of fresh water
- C. a permanent rise in sea level
- D. a decrease in ocean temperature

END OF EXAMINATION