NAME: _____

TEACHER: _____

DO NOT OPEN THE EXAM PAPER UNTIL

YOU ARE TOLD BY THE SUPERVISOR TO BEGIN

Science 1206

SAMPLE COMMON EXAMINATION

2009

Value: 100%

General Instructions

This examination consists of four sections corresponding to the four units in the course. Each section contains multiple choice and constructed response questions.

Multiple Choice (60%)

Select the letter of the correct response from those provided. EITHER shade the letter on your computer scorable card OR place the letter in the blank provided on your Multiple Choice Answer Sheet, whichever format is being used by your school for this exam. **Do ALL questions in this section**.

Constructed Response (40%)

Answer ALL questions fully and concisely in the space provided.

Student Checklist

The items below are your responsibility. Please ensure that they are completed.

□ Write your name and teacher's name on the top of this page.

□ Write your name, teacher's name, course name and number on the Part I answer sheet.

□ Check the exam to see that there are no missing pages. **ALL MATERIALS MUST BE PASSED IN WITH THIS EXAM.** Use your time wisely. Good luck!

Science 1206 Common Exam 2009 (Sample)

Section I (Life Science) 25%
Multiple Choice 1% each

1. Decomposers are responsible for breaking down dead organic material in an ecosystem. What is the role played by a decomposer?

   a. Consumer
   c. Niche
   b. Habitat
   d. Saprobe

2. What type of competition is represented by a chickadee and a warbler competing for nesting space?

   a. Commensalism
   c. Interspecific
   b. Intraspecific
   d. Symbiosis

3. Vegans eat no meat, fish or dairy products. What category of consumer would they fit into?

   a. Carnivore
   c. Omnivore
   b. Herbivore
   d. Producer

4. Lichens appearing on newly formed lava represent which type of plant community?

   a. Climax
   c. Indigenous
   b. Exotic
   d. Pioneer

5. Breeding bird populations were severely affected by DDT in the late 1960's and early 1970's in North America. What was the cause of this reduction in population?

   a. Bioaccumulation
   c. Pesticide resistance
   b. Habitat destruction
   d. Water solubility

6. It was once believed that Newfoundland had an unlimited supply of codfish, but how we view this resource has changed. What term describes this change?

   a. Paradigm
   c. Resource management
   b. Paradigm shift
   d. Sustainability

7. What term describes the relationship between all species in an environment and the biotic and abiotic factors in that environment?

   a. Ecosystem
   c. Habitat
   b. Food web
   d. Niche

8. The clownfish and the sea anemone have a relationship in which the anemone hides the clownfish from its predators. What type of symbiotic relationship does this represent?

   a. Commensalism
   c. Parasitism
   b. Mutualism
   d. Predation

9. Two bull moose are fighting over a lone female moose. What type of competition does this represent?

   a. Commensalism
   c. Interspecific
   b. Intraspecific
   d. Symbiosis

10. Which is an abiotic factor?

a. Competition
c. Disease
b. Death
d. Space

11. Which Canadian biome receives less than 100cm of precipitation, has rich, fertile soil, is dominated by fescue grass and is home to the bison?

a. Boreal forest
c. Grassland
b. Deciduous forest
d. Tundra

12. Which category of organisms must be present in all food chains?

a. Decomposers
c. Secondary consumer
b. Producers
d. Tertiary consumer

13. Gases are more soluble in cold liquids than warm liquids. If the oceans warm, how could this gas property impact the amount of carbon dioxide in the atmosphere and its effect on global warming?

a. Decrease CO_2 , decrease global warming
c. Increase CO_2, decrease global warming
b. Decrease CO_2, increase global warming
d. Increase CO_2, increase global warming

14. Extended application of fertilizers on farmland has resulted in an increase in both nitrate and phosphate levels in a nearby waterway. What will be the impact on the aquatic organisms in the waterway?

a. Assimilation
c. Biomagnification
b. Bioaccumulation
d. Eutrophication

15. If 90% of the energy is lost as heat at each tropic level if the food chain, how much energy would be available for the third tropic level if the producers contain 10 000 kJ?

a. 1
c. 100
b. 10
d. 1000

16. The local golf course regularly aerates its greens. Which would be negatively impacted by this procedure?

a. Denitrifying bacteria
c. Primary consumers
b. Nitrifying bacteria
d. Producers

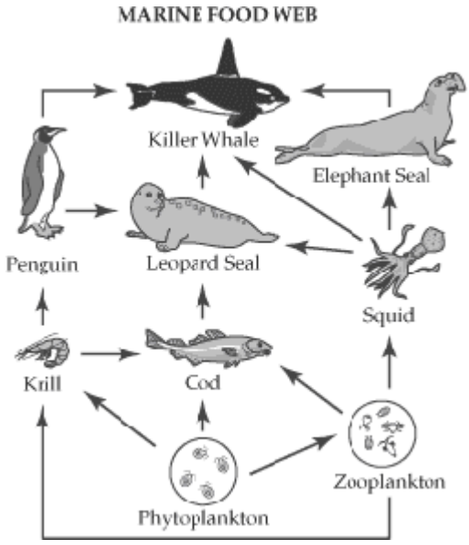
Section I

Constructed Response (9%)

17. Nalcor, an energy company, is proposing to run a high voltage transmission line through Gros Morne National Park, which is recognized as a World Heritage Site for its untouched natural beauty. This power line will extend 40 m high and run through 65 km of the park. Explain how opposition to this power line is an example of a paradigm shift and comment on the possible impact on the local ecosystem. (**3 Marks)**

18. After a forest fire, spruce trees grow very close together which results in the death of some trees and the stunted growth of many others. The resulting trees have very thin trunks. Identify the type of competition and the abiotic factors which result in this type of growth. (**3 Marks)**

19. Due to overfishing, the cod has almost disappeared from this marine ecosystem. Comment on the impact that the removal of this species will have on this marine food web. (**3 Marks)**



Section II (Motion) 25%
Multiple Choice 1% each

20. An object travels in a straight line at a constant speed. Which term best describes the motion?

a. Accelerating
c. Stopped
b. Decelerating
d. Uniform

21. The area under a velocity-time graph represents what quantity?

a. Acceleration
c. Displacement
b. Distance
d. Velocity

22.How many significant digits are in the number 0.200?

a. 1
c. 3
b. 2
d. 4

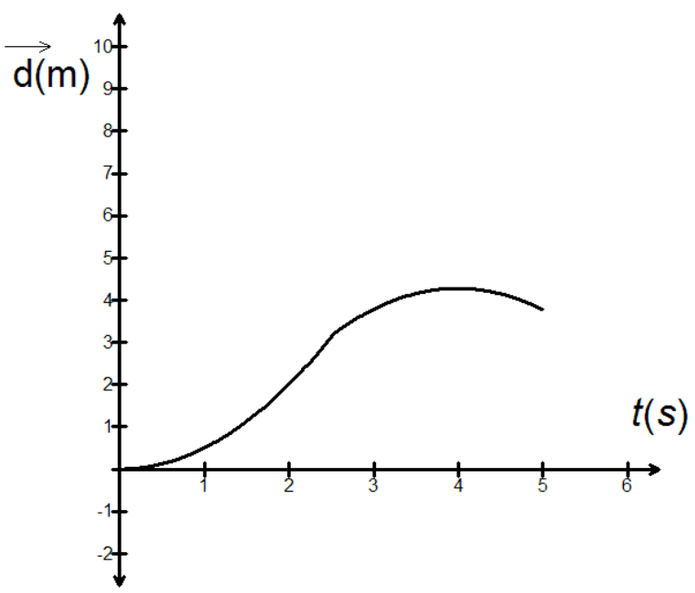
23. The rate of change in velocity per unit of time is known as...

a. Acceleration
c. Displacement
b. Distance
d. Speed

24. A police officer is recording the speeds of vehicles on the Trans Canada Highway using a radar gun. What is the police officer recording?

a. Average speed
c. Instantaneous speed
b. Constant speed
d. Uniform motion

25. At which time is the object represented in the graph moving fastest?



a. 1 s
c. 3 s
b. 2 s
d. 4 s

26. Express 3561.32 in scientific notation with two significant figures.

a. 3.5×10^3
c. 3.56×10^3
b. 3.6×10^3
d. 35.6×10^2

27. Mary walked for 2.1 h along a portion of the Trans Canada Trail at a speed of 3.2 km/h. What distance did Mary travel?

a. 0.66 km

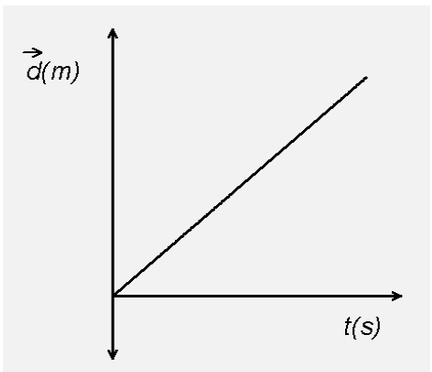
c. 3.2 km

b. 1.5 km

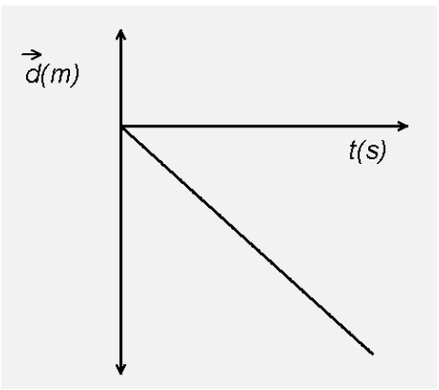
d. 6.7 km

28. Which graph represents an object with an increasing velocity?

a.



c.



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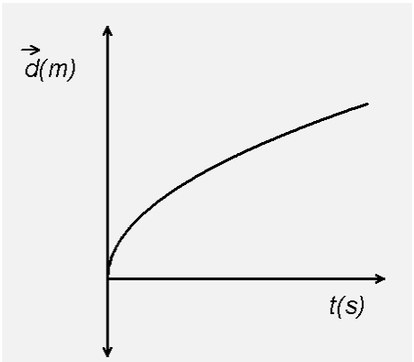
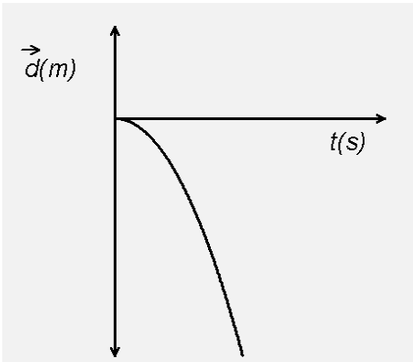


d.



29. A car initially moving at 18 m/s comes to a stop as it approaches a stop sign. If it takes 8.0 seconds to stop, calculate the acceleration of the car.

a. -144 m/s^2

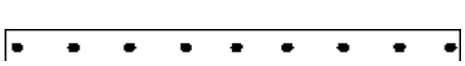
c. 2.25 m/s^2

b. -2.25 m/s^2

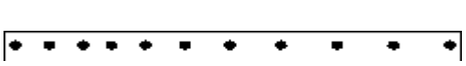
d. 144 m/s^2

30. An object travelling with uniform motion creates a series of dots as it moves along a piece of paper. Which pattern below represents the objects motion?

a.

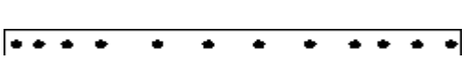


c.



b.

d.



31. During five trials of an experiment, a student determined the acceleration due to gravity (g) as follows: (The true value is 9.8 m/s^2). Which would best describe their results?

Trial	g (m/s^2)
1	4.1
2	3.9
3	4.3
4	4.4
5	4.1

a. Not accurate, not precise

b. Not accurate, but precise

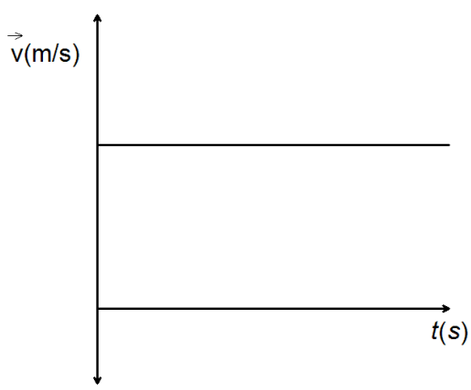
c. Accurate, but not precise

d. Accurate and precise

32. The distance-time data below was collected for a moving object. Which graph represents the object's motion?

$\vec{d}$(m)	t (s)
0	0
1	1
4	2
9	3
16	4
25	5

a.



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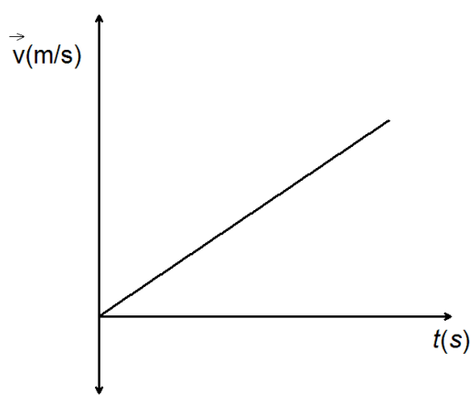
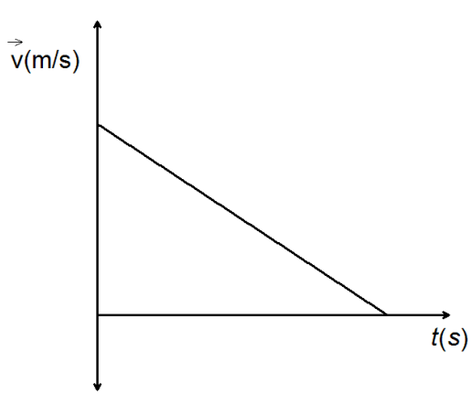
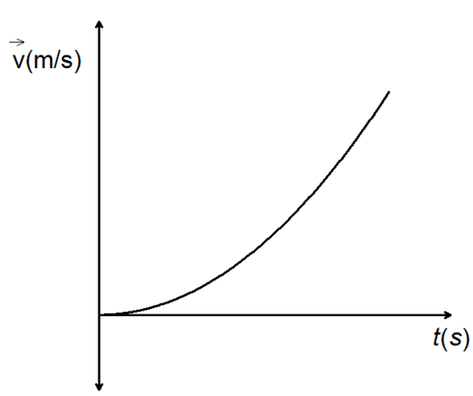


b.



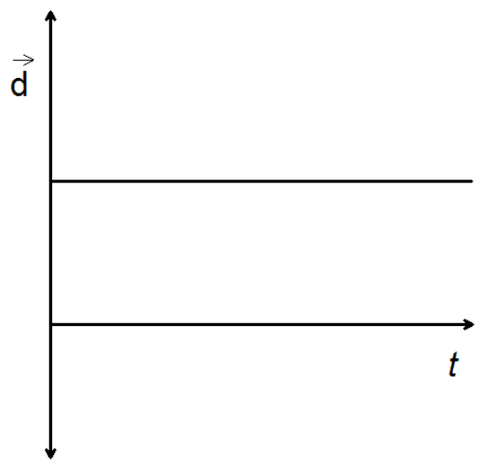
d.



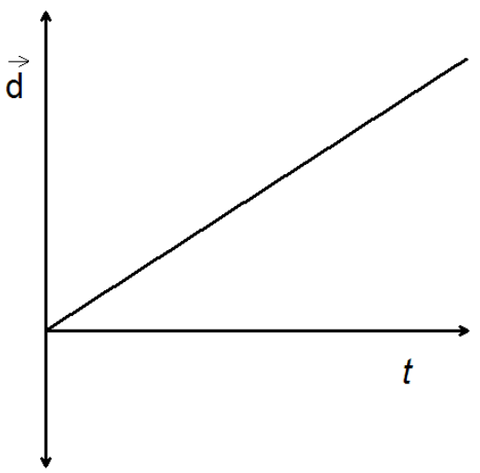
33. The velocity-time data table shown was collected for a moving object. Which displacement-time graph matches the data from the table?

t(s)	v(m/s)
0	0
1	3.5
2	7.0
3	10.5
4	14.0

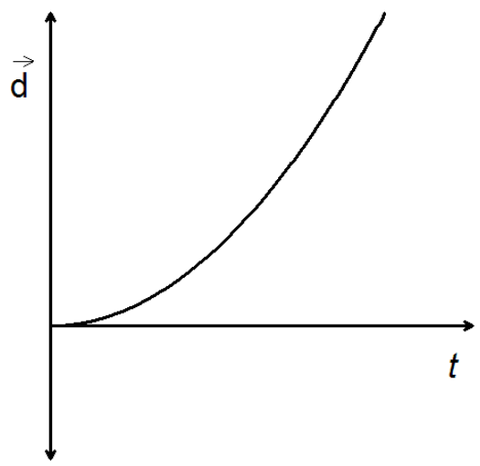
a.



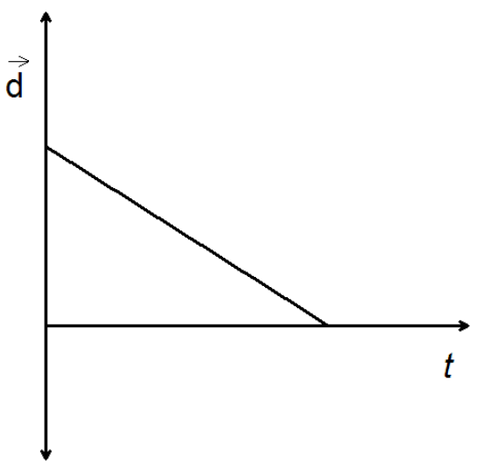
c.



b.

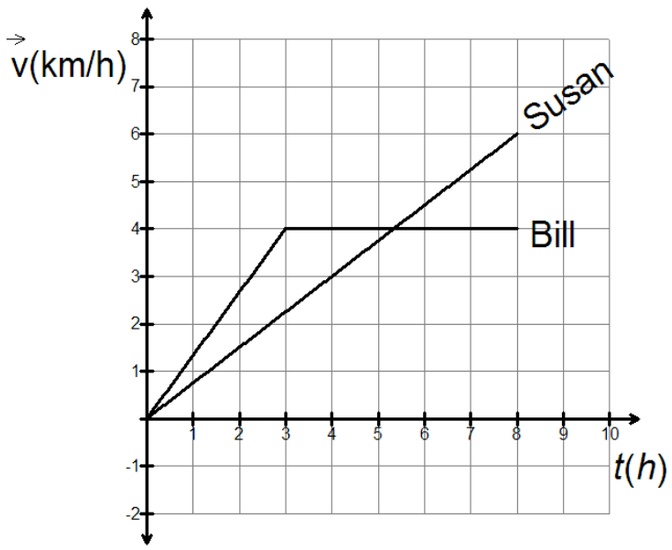


d.



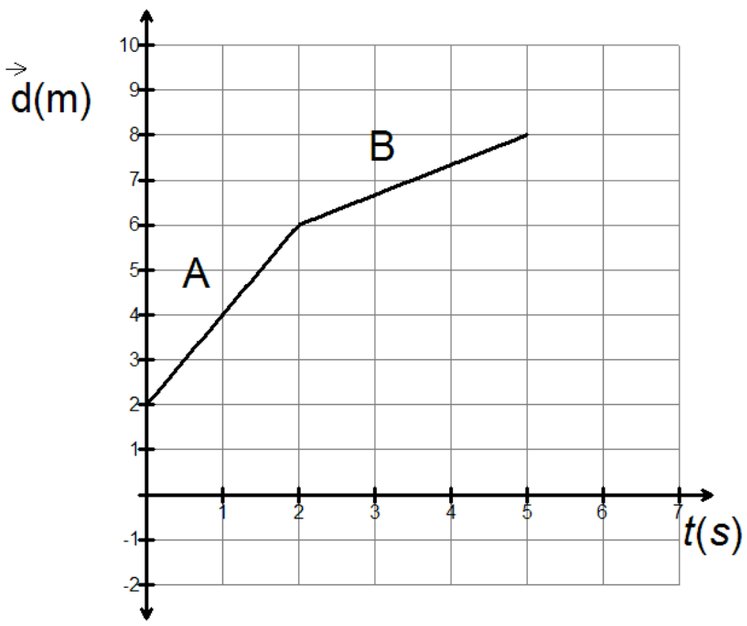
Section II
Constructed Response (11%)

34. Susan and Bill leave home at the same time but are travelling at different velocities. Who has travelled further after 8.0 seconds? (**3 Marks)**



35. Joe leaves his house and jogs for 30 minutes, travelling 2 km. Can you determine his average velocity? Explain. (**2 Marks)**

36. Using the following graph of an object moving North..... **(3 Marks)**

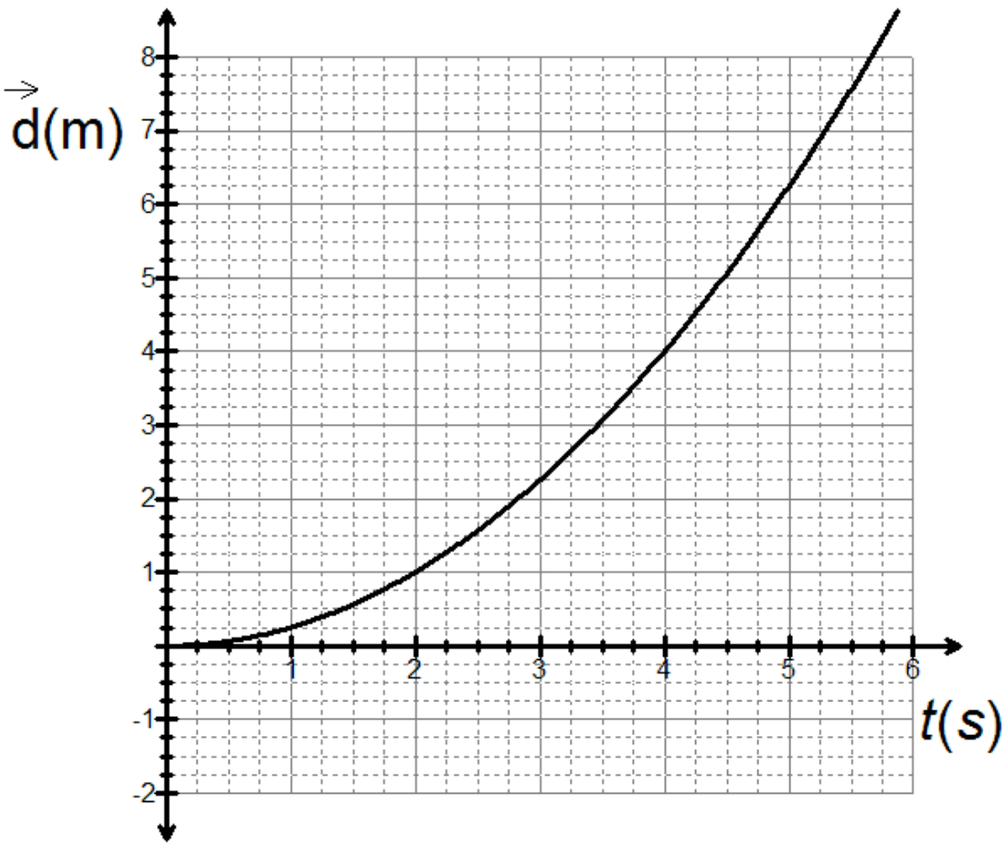


i) Determine the velocity of the object during stage A.

ii) Determine the velocity of the object during stage B.

iii) Determine the average velocity of the object over both stages?

37. Using the displacement-time graph below, plot a velocity-time graph. (**3 Marks)**



Section III (Chemistry) 25%

Multiple Choice 1% each

38. What category of hazardous substance does this symbol represent?

a. Biohazard
c. Corrosive
b. Compressed gas
d. Reactive

39. Which is a molecular compound?

a. AlN
c. NH_4NO_3
b. NH_3
d. SnO

40. What is a substance that can conduct electricity when it dissolves in water ?

a. Electrolyte
c. Molecular compound
b. Insoluble compound
d. Non-electrolyte

41. When a glowing splint is held in a test tube and it reignites, what gas is being produced by the reaction?

a. Carbon dioxide
c. Oxygen
b. Hydrogen
d. Water vapour

42. What is the common name for H_2O_2?

a. Ethanol
c. Methanol
b. Hydrogen peroxide
d. Water

43. What is the IUPAC name for $V_3(BO_3)_5$?

a. Vanadium borate
c. Vanadium (V) borate
b. Vanadium (III) borate
d. Vanadium boride

44. What is the correct chemical formula for tin (IV) oxide hexahydrate?

a. $SnO•7H_2O$
c. $SnO_2•7H_2O$
b. $SnO•6H_2O$
d. $SnO_2•6H_2O$

45. Which is an example of a physical change?

a. Food cooking
c. Paint drying
b. Milk spoiling
d. Water boiling

46. If copper metal reacts with silver nitrate solution, what type of reaction occurs?

a. Double replacement
c. Hydrocarbon Combustion
b. Formation
d. Single Replacement

47. Which compound is insoluble in water?

a. $Al(NO_3)_3$
c. $Al(CH_3COO)_3$
b. $Al(OH)_3$
d. $(NH_4)_3PO_4$

48. Which compound is molecular?

a. Ammonium hydroxide
c. Lithium oxide
b. Hydrogen peroxide
d. Gallium fluoride dihydrate

49. What is the formula for nitrous acid?

a. $H_3N(aq)$
c. $HNO_2(aq)$
b. $HNO_3(aq)$
d. $HNiO_2(aq)$

50. Which chemical equation predicts the correct products and is properly balanced?

a. $CH_{4(S)} + 0_{2(}g) \rightarrow C0_{2(g)} + 2\ H_20_{(g)}$
c. $CH4_{(g)} + 3\ O_{2(g)} \rightarrow CO_{2(g)} + 2\ H_2O_2(l)$
b. $CH_{4(g)} + 2\ 0_{2(g)} \rightarrow C0_{2(g)} + 2\ H_20_{(g)}$
d. $CH_{4(g)} + 2\ 0_{2(g)} \rightarrow C0_{(g)} + 2\ H_20_{(g)}$

51. If propane burns in air, as shown, what mass of water vapor should you expect to be produced if 50.0g of propane reacts with 125.0g of oxygen gas and 76.0 g of carbon dioxide are produced?

$$\mathbf{C_3H_8\ (g) \ + \ 5O_2(g) \rightarrow 3\ CO_2(g) \ + \ 4\ H_2O(g)}$$

a. 49.0 g
c. 99.0 g
b. 50.0 g
d. 175.0 g

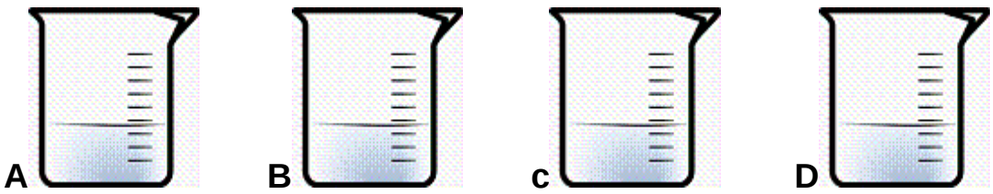
Section III
Constructed Response (11%)

52. A solution of barium nitrate $Ba(NO_3)_{2\,(aq)}$ reacts with aqueous potassium sulfate $K_2SO_{4\,(aq)}$. Predict the products, with the correct state, and balance the equation. (**3 Marks)**

53. You are walking your dog on an abandoned side road and you see an old car wreck. What type of chemical reaction would the metal of the car have undergone, and what indication is there that a reaction has occurred? (**3 Marks)**

54. Acetylene gas is used at construction sites when welding metals together. What two WHMIS symbols would you expect to see on this chemical at a work site? (**2 Marks)**

55. Samples of potassium hydroxide, sucrose, calcium carbonate, copper (II) sulfate are added individually to 50.0 mL of water in a beaker as shown above. Using the information provided in the table, correctly identify the chemical formula for the solution in each beaker. (**3 Marks)**



Beaker	Formula	Soluble	Conductivity	Solution colour	Litmus Paper
A		Does not dissolve	none	Not applicable	No change
B		yes	good	Clear, colorless	Red turns blue
C		yes	good	Clear blue	No change
D		yes	none	Clear, colorless	No change

Section IV (Weather) 25%
Multiple Choice 1% each

56. Which atmospheric layer would have a typical temperature of -75ºC?

a. Mesosphere
c. Thermosphere
b. Stratosphere
d. Troposphere

57. What atmospheric layer is closest to the earth?

a. Exosphere
c. Thermosphere
b. Stratosphere
d. Troposphere

58. Which conditions would most likely produce fog?

a. Cool air over cool land
c. Warm air over cool water
b. Cool air over cool water
d. Warm air over warm land

59. Which of the following causes prevailing wind patterns?

a. Air masses
c. Continents
b. Coriolis effect
d. Ocean currents

60. How would temperature and atmospheric pressure change as you climbed Mount Everest?

a. Temperature decreases - pressure decreases
c. Temperature increases - pressure decreases
b. Temperature decreases - pressure increases
d. Temperature increases - pressure increases

61. What term describes the percentage of light that an object reflects?

a. Albedo
c. Photosynthesis
b. Dispersion
d. Refraction

62. Which of the following is a cloud type?

a. Advective
c. Convective
b. Conductive
d. Radiant

63. Which instrument is used to measure atmospheric pressure?

a. Anemometer
c. Hygrometer
b. Barometer
d. Thermometer

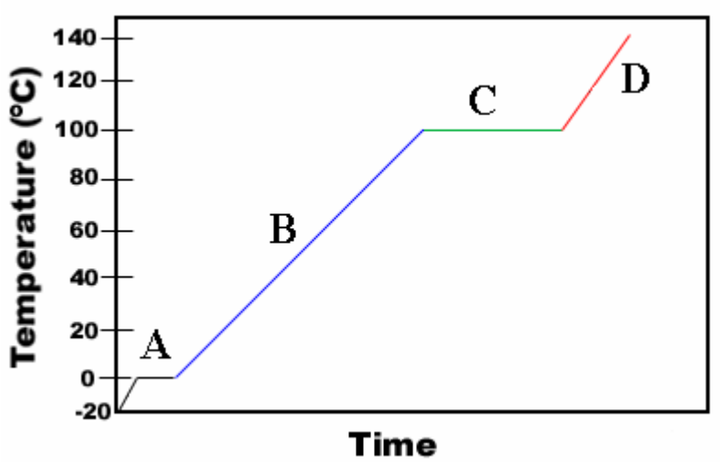
64. Which instrument is used to measure wind speed?

a. Anemometer
c. Hydrometer
b. Barometer
d. Thermometer

65. Which types of clouds would most likely form in a mountainous region of Canada?

a. Convective
c. Frontal
b. Fog
d. Orographic

66. In which which section of the heating curve below is water in its gaseous form?



a. A
c. C
b. B
d. D

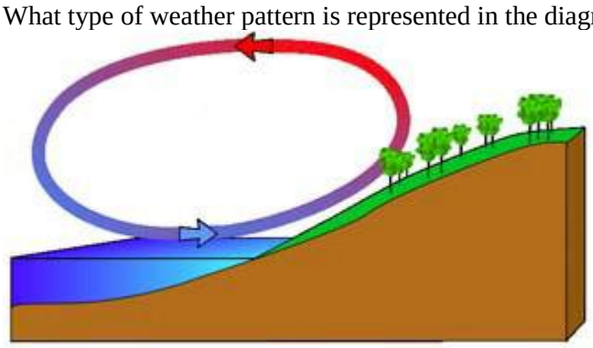
67. What is the driving force of the water cycle?

a. ocean currents
c. Water
b. sun
d. Wind

68. An area of forest was destroyed by fire about sixty years ago. What would the dominant type of vegetation be in the area today?

a. lichens
c. shrubs
b. moss
d. trees

69. What type of weather pattern is represented in the diagram below?



a. land breeze
c. hurricane
b. sea breeze
d. Thermal

70. What does the instrument below measure?

a. Atmospheric pressure
c. Temperature
b. Specific gravity
d. Wind speed

71. Which location would most likely be affected by a cool moist air mass?

a. A
c. C
b. B
d. D

Section IV

Constructed Response (9%)

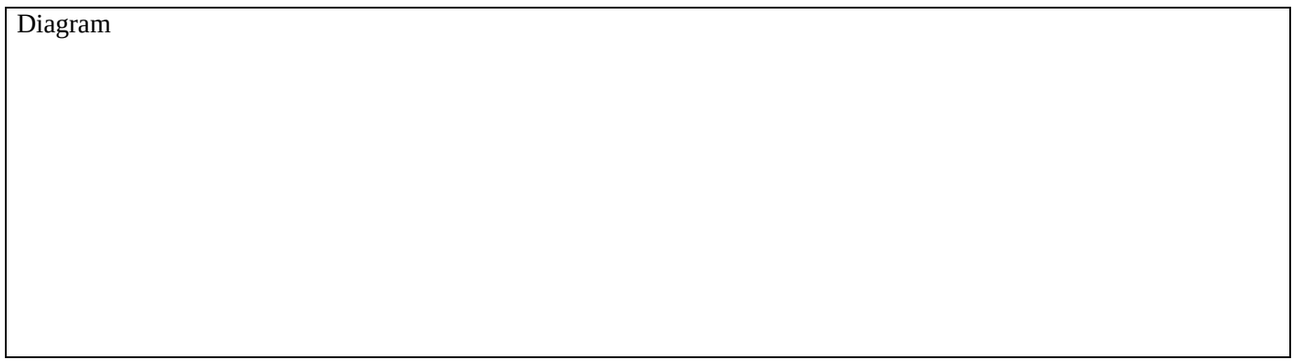
72.A pilot experiences a sudden uplift while flying over an open area on a warm day. **(3 Marks)**

a) What type of air movement is the pilot experiencing?

b) Explain why this type of air movement exists.

73. On a warm summer's day a ship is stranded offshore with no wind to fill its sails. As the sun sets, would you expect any change in the ship's position? Explain, using a diagram. **(3 Marks)**

Diagram



Explanation

74. Corner Brook, on the west coast of Newfoundland, experienced 15 days of fog last summer, while Argentia, on the east coast experienced 3 days of fog. Was this a typical summer? Explain why, or why not, based on what you know about formation of fog in Newfoundland. **(3 Marks)**

Science 1206 Common Exam 2009 (Sample)
Answer Section

1. ANS: C PTS: 1 DIF: Level 1 OBJ: 214-1
2. ANS: C PTS: 1 DIF: Level1
3. ANS: B PTS: 1 DIF: Level1 OBJ: 214-1
4. ANS: D PTS: 1 DIF: Level 1 OBJ: 214-3 | 2.13-7
5. ANS: A PTS: 1 DIF: Level 1 OBJ: 318-2
6. ANS: B PTS: 1 DIF: Level 1 OBJ: 215-1 114-1
7. ANS: A PTS: 1 DIF: Level 1 OBJ: 318-5
8. ANS: A PTS: 1 DIF: Level 1 OBJ: 318-5
9. ANS: B PTS: 1 DIF: Level 1 OBJ: 214-1
10. ANS: D PTS: 1 DIF: Level 1 OBJ: 318-5
11. ANS: C PTS: 1 DIF: Level 2 OBJ: 318-3
12. ANS: B PTS: 1 DIF: Level 2 OBJ: 214-1
13. ANS: D PTS: 1 DIF: Level 2 OBJ: 213-8 212-4
14. ANS: D PTS: 1 DIF: Level 3 OBJ: 318-1
15. ANS: C PTS: 1 DIF: 2
16. ANS: A PTS: 1 DIF: Level 3 OBJ: 213-8 212-4 331-6
17. ANS:
    This is an example of a paradigm shift because in the past we believed that our resources were limitless and here for our use exclusively. Nowadays we are more aware of the consequences of our actions when we are constructing projects such as this. In the past we would have just put this line wherever we wanted with no regard for the local habitat. Today we are much more aware of our environmental footprint and such actions as this power line are met with much more opposition as we seek to maintain our untouched areas. The local ecosystem will be impacted by the cutting of forest to put the lines in place and this will impact any organism relying on the trees. Noise pollution may also be an issue.

    PTS: 3 DIF: Level 3 OBJ: 114-1 215-1 214-3 213-7
18. ANS:
    This is an example of intraspecific competition as the trees are competing with other spruce trees for space, light and water. The fact that the trees are stunted in their growth and quite close together suggests that they do not have enough space to grow to a good size. The death of some trees may suggest that they did not have adequate water and or light to sustain growth.

    PTS: 3 DIF: Level 2 OBJ: 214-1 318-5
19. ANS:
    The zooplankton, phytoplankton and krill populations may increase as one of their primary predators has been drastically reduced in their numbers. The leopard seal is the only organism in this food web which feeds directly on the cod, so its population may decrease unless it is able to feed on more squid and penguins. This may then impact the squid and penguin population numbers in this food web.

    PTS: 3 DIF: Level 2 OBJ: 214-1 215-1

20. ANS: D PTS: 1 DIF: Level I REF: Guide p. 98 (212-7 | 325-1 | 325-2)
21. ANS: C PTS: 1 DIF: Level I REF: 212-7 | 325-1 | 325-2
22. ANS: C PTS: 1 DIF: Level I REF: 214-10
23. ANS: A PTS: 1 DIF: Level I REF: 212-7 | 214-5 | 325-4
24. ANS: C PTS: 1 DIF: Level I REF: Guide p. 96 (212-7 | 325-1 | 325-2)
25. ANS: B PTS: 1 DIF: Level I REF: Guide p. 102 (213-3)
26. ANS: B PTS: 1 DIF: Level II REF: Curr. Guide p. 96
OBJ: 214-10
27. ANS: D PTS: 1 DIF: Level II REF: 212-7 | 325-1 | 325-2
28. ANS: D PTS: 1 DIF: Level II REF: guide p. 104 (212-7 | 214-5 | 325-4)
29. ANS: B PTS: 1 DIF: Level II REF: p. 104 (212-7 | 214-5 | 325-4)
30. ANS: A PTS: 1 DIF: Level II REF: Guide p. 94 (213-3)
31. ANS: B PTS: 1 DIF: Level II REF: Guide p. 96 (214-8)
32. ANS: C PTS: 1 DIF: Level III REF: Guide p. 98 (212-7 | 325-1 | 325-2)
33. ANS: B PTS: 1 DIF: Level III REF: Guide p. 98 (212-7 | 325-1 | 325-2)
34. ANS:

Susan $\vec{d} = \frac{1}{2}(8) \cdot (6)$

$= 24km$

Bill $\vec{d} = \frac{1}{2}(3) \cdot (4) + (5) \cdot (4)$

$= 6 + 20$

$= 25km$

Bill has travelled further.

PTS: 3 DIF: Level II REF: p. 104 guide OBJ: 212-7, 214-5, 325-4

35. ANS:
No, you can not determine his average velocity. In order to determine his average velocity, you need Joe's displacement and time. Time is given, but displacement is not (distance travelled is).

PTS: 2 DIF: Level II REF: 212-7 | 325-1 | 325-2

36. ANS:

i) During stage A: $\vec{v} = \frac{\vec{d}}{\vec{t}} = \frac{4\,m}{2\,s} = 2\,m/s \vec{v} = \frac{\vec{d}}{\vec{t}} = \frac{4\,m}{2\,s} = 2\,m/s$

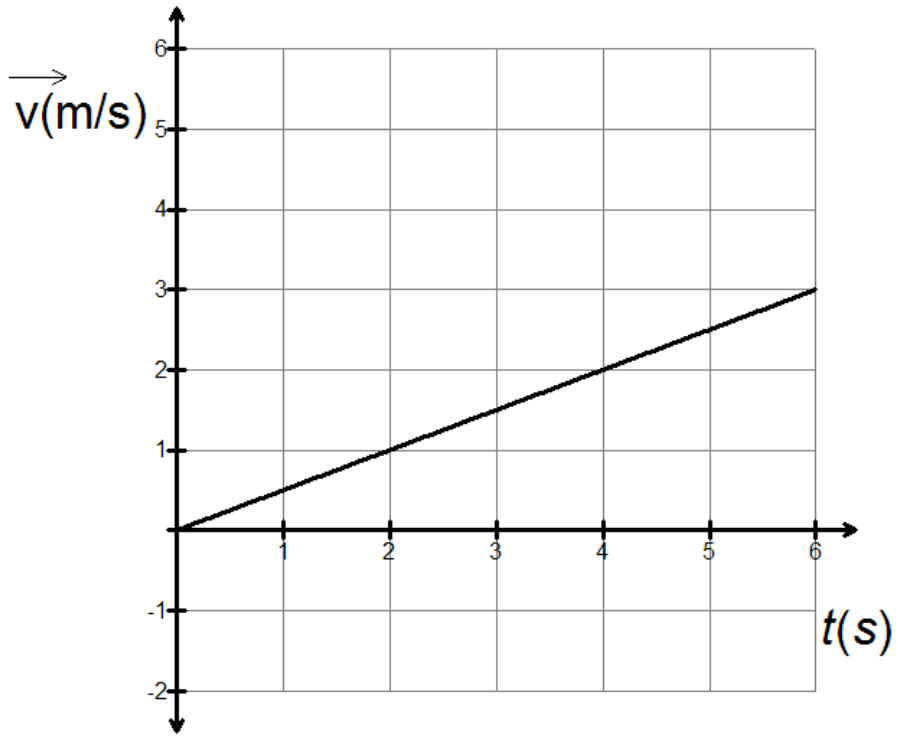
ii) During stage B : $\vec{v} = \frac{\vec{d}}{\vec{t}} = \frac{2\,m}{3\,s} = 0.67\,m/s \vec{v} = \frac{\vec{d}}{\vec{t}} = \frac{2\,m}{3\,s} = 0.67\,m/s$

iii) Average velocity : $\vec{v} = \frac{\vec{d}}{\vec{t}} = \frac{6\,m}{5\,s} = 1.2\,m/s \vec{v} = \frac{\vec{d}}{\vec{t}} = \frac{6\,m}{5\,s} = 1.2\,m/s$

PTS: 3 DIF: Level II REF: 212-7 | 325-1 | 325-2

37. ANS:
Students can determine any 3 velocities and use these values to construct a graph. Velocities are:

$\vec{v}$ (m/s)	t (s)
0	0
0.5	1
1	2
1.5	3
2	4



PTS: 3 DIF: Level III REF: 213-3

38. ANS: A PTS: 1 DIF: 1 OBJ: 213-9
39. ANS: B PTS: 1 DIF: 1 OBJ: 114-8
40. ANS: A PTS: 1 DIF: 1 OBJ: 114-8
41. ANS: C PTS: 1 DIF: 1 OBJ: 212-8
42. ANS: B PTS: 1 DIF: 1 OBJ: 319-1
43. ANS: C PTS: 1 DIF: 2 OBJ: 319-1
44. ANS: D PTS: 1 DIF: 2 OBJ: 319-1
45. ANS: D PTS: 1 DIF: 2 OBJ: 114-8 | 321-1
46. ANS: D PTS: 1 DIF: 2 OBJ: 321-1
47. ANS: B PTS: 1 DIF: 2 OBJ: 321-1
48. ANS: B PTS: 1 DIF: 2 OBJ: 321-1 | 319-1
49. ANS: C PTS: 1 DIF: 2 OBJ: 319-2
50. ANS: A PTS: 1 DIF: 3
51. ANS: C PTS: 1 DIF: 3 OBJ: 321-1 | 319-1
52. ANS:

$Ba(NO_3)_2(aq) + K_2SO_4(aq) \rightarrow 2\,KNO_3(aq) + BaSO_4(s)$ Double Replacement Precipitation

PTS: 3 DIF: 2 OBJ: 321-1 | 319-1

53. ANS:
Iron undergoes a formation reaction to form Iron Oxide. The red color would indicate the reaction has occurred.

PTS: 3 DIF: 2 OBJ: 321-1 | 114-8 | 319-1

54. ANS:
Compressed gas and Flammable and Combustible material.

PTS: 2 DIF: 2 OBJ: 213-9

55. ANS:
A) $CaCO_3$ B) KOH C) $CuSO_4$ D) $C_{12}H_{22}O_{11}$

PTS: 3 DIF: 3 OBJ: 212-8 | 114-8 | 319-1 | 319-2

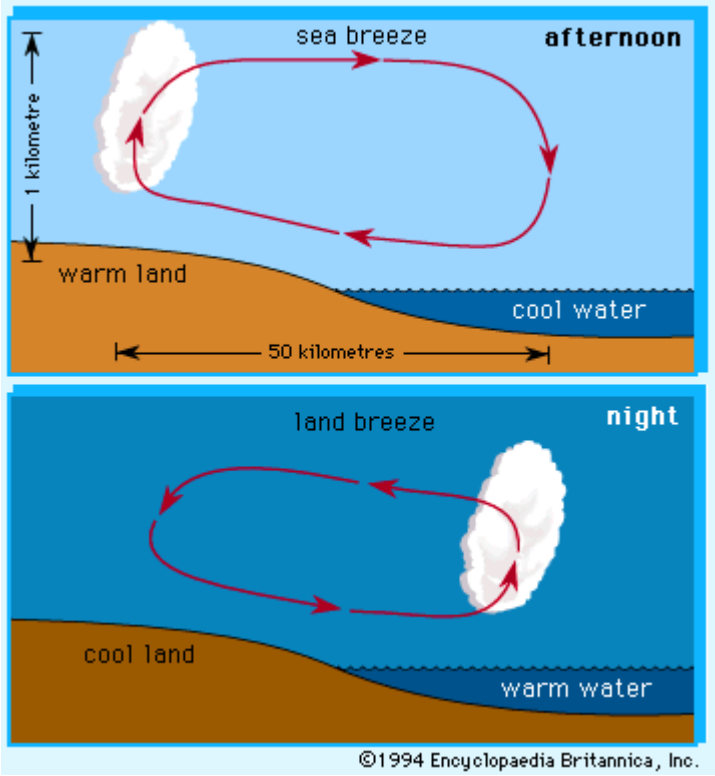
56. ANS: A PTS: 1 DIF: Level II REF: Guide p. 62 (115-2 | 331-2 |)
57. ANS: D PTS: 1 DIF: Level I REF: Guide p. 62 (115-2 | 331-2)
58. ANS: C PTS: 1 DIF: Level I REF: Guide p. 54 (115-2 | 331-1)
59. ANS: B PTS: 1 DIF: Level I REF: 214-3, 331-2
60. ANS: A PTS: 1 DIF: Level I REF: 115-2, 331-2
61. ANS: A PTS: 1 DIF: Level I REF: 212-1, p. 52 guide
62. ANS: C PTS: 1 DIF: Level I REF: 212-1
63. ANS: B PTS: 1 DIF: Level I REF: 114-6, p. 48 guide
64. ANS: A PTS: 1 DIF: Level I REF: 114-6, p. 48
65. ANS: D PTS: 1 DIF: Level II REF: Guide p. 52
OBJ: (212-1)
66. ANS: D PTS: 1 DIF: Level II REF: Guide p. 56 (214-3)
67. ANS: B PTS: 1 DIF: Level I REF: 212-1, p. 52 guide
68. ANS: D PTS: 1 DIF: Level 2 OBJ: 214-3 | 213-7
69. ANS: B PTS: 1 DIF: Level II REF: Guide p. 62 (115-2)
70. ANS: D
.

PTS: 1 DIF: Level III REF: Guide p. 48 (114-6)

71. ANS: B PTS: 1 DIF: Level III REF: Guide p. 64 (331-4)
72. ANS:
a) Thermal
b) Thermals result when the sun warms the earth. The earth then warms the air directly above it, which becomes less dense and quickly rises into the atmosphere.

PTS: 3 DIF: Level III REF: 115-2, p. 62 guide

73. ANS:



In the afternoon a land breeze should form. This results when the land cools faster than the ocean water. The air above the warm water will rise, and air from the land will move out to sea to replace it. This will drive the ship further offshore.

PTS: 3 DIF: Level III REF: 115-2, p. 62 guide

74. ANS:

No. The east coast of Newfoundland typically experiences more fog days than the west coast. The warm Gulf Stream from the south hits the cold Labrador current from the north on the eastern part of Newfoundland. The mixing of the warm and cold air masses over these ocean currents results in fog.

PTS: 3 DIF: Level II REF: 115-2, 331-1, p. 54 guide