

Coordinated Science End of year exam

Academic year 2015-16

Prepare The exam is on Monday 6th June. You should use the time from now to then productively by spending **half an hour** or so a night (a couple of hours a day at the weekends) quietly in your room making notes and revising Science. Just reading through is not revising. Actively do questions or create revision resources. Go over your old exams and learn from your mistakes.

During the exams, be ready, have the right equipment. Have the right amount of sleep (8 hours). The more preparation you do now means the less worry you will have later.

Exam Materials – For each of your exams you will need pens, pencils, rubber, sharpener, ruler, protractor, calculator, pair of compasses. Prepare a clear pencil case containing all of your equipment for the start of the exams as it may not be available on the exam day.

Exam Timetable:

Exam date	Exam type
Monday 6 th June	Multiple choice

Topics to revise for the exam.

BIOLOGY

1. Characteristics and classification of living organisms
2. Cells
3. Enzymes
4. Nutrition
5. Transportation

CHEMISTRY

1. The particulate nature of matter

2. Experimental techniques
3. Atoms, elements and compounds
4. n/a
5. Electricity and chemistry
6. Energy changes in chemical reactions
7. Chemical reactions
8. Acids, bases and salts

PHYSICS

1. Motion
2. Matter and forces
3. Energy, work and power
4. Simple kinetic molecular model of matter
5. Matter and thermal physics
6. Transfer of thermal energy

Answers

Always read and use the information given in the question. If it seems you don't know how to answer a question re-read the information you have been given and make sure you've understood it. Pick out the key words and take a moment to think about your answer. Ask yourself if what you are writing is what the question is looking for.

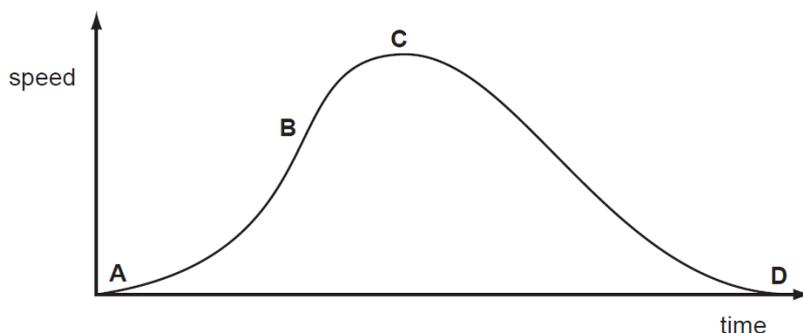
Paper 1 is the multiple choice paper. You can normally eliminate 2 of the answers straight away. Then look carefully at the wording of the remaining two. The wording may be very similar so you need to know your content. Make sure you use the syllabus to learn the difference between prompt words and read questions carefully. Ensure when you are revising,

you write all the key words for each topic. Learn the practicals for each course. Learn them step by step and all the tests from the appendix in each syllabus. Learn the expected results for each practical, equipment and reagents to be used. For graphs learn what they should look like and be able to explain them.

Example questions

1. The speed-time graph shown is for a bus travelling between stops.

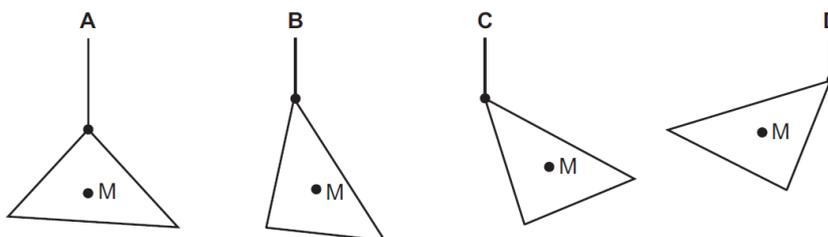
Where on the graph is the acceleration of the bus the greatest?



- 2.

A piece of card has its centre of mass at M.

Which diagram shows how it hangs when suspended by a thread?



- 3.

The diagram shows a cup of tea.

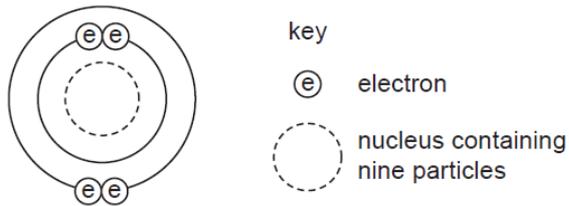


Which row describes the water particles in the air above the cup compared with the water particles in the cup?

	moving faster	closer together
A	✓	✓
B	✓	x
C	x	✓
D	x	x

4.

The diagram shows an atom.



What is the proton number and neutron number of the atom?

	proton number	neutron number
A	4	5
B	4	9
C	5	4
D	5	9

5.

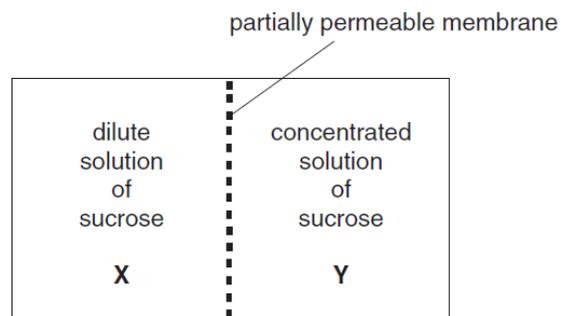
Glycogen, protein and starch are all large molecules made from smaller basic units.

Which basic units form these molecules?

	glycogen	protein	starch
A	amino acids	simple sugars	fatty acids
B	fatty acids	simple sugars	simple sugars
C	simple sugars	amino acids	simple sugars
D	simple sugars	fatty acids	amino acids

6.

The diagram shows two solutions that are separated by a partially permeable membrane.



In which direction will most water molecules move?

- A** from **X** to **Y**, against their concentration gradient
- B** from **X** to **Y**, down their concentration gradient
- C** from **Y** to **X**, against their concentration gradient
- D** from **Y** to **X**, down their concentration gradient