



Cambridge Assessment
International Education

Specimen Paper Answers

Paper 3

**Cambridge International AS & A Level
Marine Science 9693**

For examination from 2022



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Introduction

The main aim of this booklet is to exemplify standards for those teaching Cambridge International AS & A Level Marine Science 9693, and to show examples of very good answers. We have selected questions from Specimen Paper 3, for examination from 2022. There are seven questions on Specimen Paper 3 and candidates must answer all of the questions and sub-questions in each exercise.

In this booklet, we have provided answers for all the questions, along with examiner comments. All questions are compulsory and candidates are required to write their answers in the spaces provided. Section A consists of structured questions, with marks for each part-question ranging from 1 mark to a maximum of 4 marks. Section B consists of free-response questions which require candidates to write longer answers in continuous prose. Marks for each question or part-question in Section B range from a minimum of 5 marks, to a maximum of 10 marks. There are a total of 45 marks for Section A and 30 marks for Section B. The mark scheme provides the answers required to gain the marks.

Each response is accompanied by a brief commentary explaining the strengths and weaknesses of the answers.

Each question is followed by an example of a high grade answer with an examiner comment on performance. Comments are given to indicate where and why marks were awarded, and how additional marks could have been obtained. In this way, it is possible to understand what candidates have done to gain their marks and how they could improve.

The mark schemes for the Specimen Papers are available to download from the School Support Hub at www.cambridgeinternational.org/support

2022 Specimen Paper 3 Mark Scheme

Past exam resources and other teacher support materials are available on the School Support Hub www.cambridgeinternational.org/support

Assessment overview

Paper 3 – A Level Theory

Written paper, 1 hour 45 minutes, 75 marks

Structured and free-response questions

Section A: – Structured questions (45 marks)

Section B: – Free-response questions (30 marks)

Questions are based on the A Level syllabus content (topics 6 to 9) but knowledge of the AS Level syllabus content (topics 1 to 5) may be required

Candidates may use calculators

The paper is an externally set assessment, marked by Cambridge

25% of the A Level

Assessment

AO1 Knowledge and understanding – weighting 53%

AO2 Handling and applying information – weighting 47%

Paper 3 – Question 1

Question 1 (a)(i)

1 Fig. 1.1 shows the structure of a chloroplast.

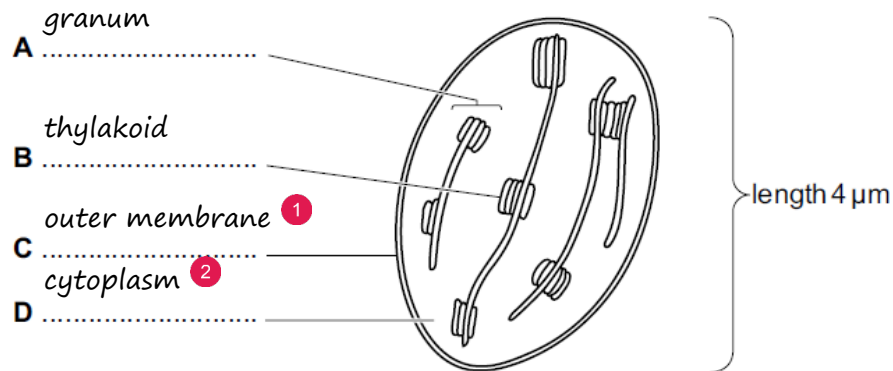


Fig. 1.1

(a) (i) On Fig. 1.1, name parts A, B, C and D.

[3]

Examiner comment

Parts A, B and C have been named correctly. ¹ Part D is stroma not cytoplasm ². The candidate has named the liquid surrounding the chloroplast rather than the liquid inside the chloroplast.

Total marks awarded 2 out of 3

Question 1 (a)(ii)

(ii) State where chlorophyll and accessory pigments are found in a chloroplast.

In the granum ¹

..... [1]

Examiner comment

Chlorophyll and accessory pigments are found in the granum ¹. This is the correct answer and needs to be precise.

Total marks awarded 1 out of 1

Question 1 (a)(iii)

- (iii) Describe the role of chlorophyll in the light-dependent stage of photosynthesis.

*Chlorophyll traps light energy from the Sun.¹ The energy is used to
 split water molecules during photolysis into oxygen and hydrogen. The
 oxygen is a waste product and the hydrogen is used to make glucose.⁴*

.....

 [3]

Examiner comment

The candidate gains a mark for stating that light energy from the sun is trapped by the chlorophyll ¹ and another mark for a correct reference to photolysis of water ². There are no further marks as there is no reference to the photoactivation of chlorophyll and the emission of an electron. The release of oxygen as a waste product is irrelevant ³ and further detail of how the hydrogen is used to make glucose is required i.e. that it is used to produce ATP and reduced NADP ⁴.

Total marks awarded: 2 out of 3

Question 1 (a)(iv)

- (iv) Suggest why the rate of biomass production in marine algae is less in shaded areas of a rocky shore compared with unshaded areas.

*There is less light¹ in shaded areas of a rocky shore, so there will be less
 Photosynthesis² and less biomass production.*

.....

 [2]

Examiner comment

Although there is a reference to less light ¹, this needed to be qualified by stating less light intensity. That less light results in less photosynthesis ² is correct. No reference has been made to shaded areas having a lower temperature, which would have been an alternative marking point for less light intensity.

Total marks awarded: 1 out of 2

Question 1 (b)

(b) Fig. 1.2 shows the absorption spectra of chlorophyll a and pigment X, found in some marine algae.

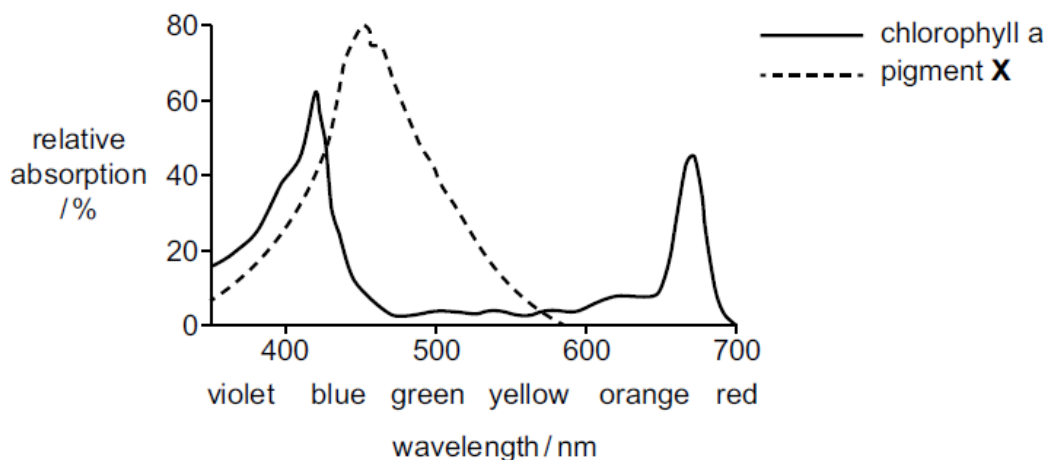


Fig. 1.2

Use the information in Fig. 1.2 and your own knowledge to suggest the zone on a rocky shore where marine algae containing these pigments could be found.

Give reasons for your answer.

zone *Lower shore* 1

reasons *The graph shows that chlorophyll a and pigment X are absorbing wavelengths between 400 and 500 nm* 2 *. These wavelengths can reach deeper areas than wavelengths of 600 to 700 nm* 3 *. The algae are adapted to live and photosynthesise in deeper water* 4

[4]

[Total: 13]

Examiner comment

That the seaweed would be found on the lower shore is correct 1. This can be deduced from the graph as pigment X is absorbing light at the blue end of the spectrum.

That the two pigments are absorbing wavelengths between 400nm and 500nm 2 is correct, though ideally a more precise wavelength of around 450nm could have been identified. There is no mention of colours, so a mark for the wavelengths penetrating deeper water cannot be credited as 'blue' light was required 3.

However, the fact that these seaweeds can photosynthesise in deeper water gains further credit 4.

Total marks awarded: 3 out of 4

Common mistakes

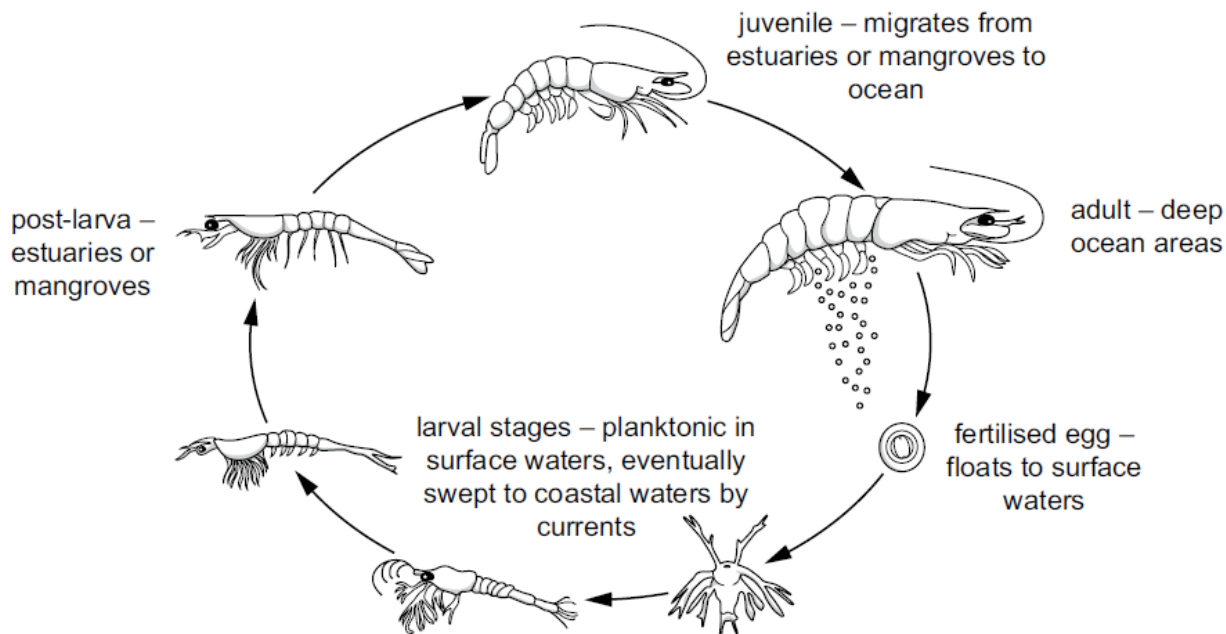
Candidates are often confused about the relationship between wavelength and colour of light and the pigments in seaweeds. A common error is to state, for example, that red seaweeds contain a red pigment which absorbs red light and that green seaweeds contain a green pigment that absorbs green light. Another common error is to confuse which wavelength of light is absorbed in shallow water (red light at 700nm) and which wavelength of light can penetrate deeper water (blue light at 450nm). Candidates need to know which areas on a rocky shore are occupied by green, red and brown algae, which pigments they contain and how each pigment traps light of a certain wavelength to enable maximum photosynthesis to take place.

Total marks awarded for Question 1: 9 marks out of 13

Paper 3 – Question 2

Question 2(a)(i)

2 Fig. 2.1 shows the life cycle of a marine shrimp and the habitat of each stage.



not to scale

Fig. 2.1

(a) (i) State **two** reasons why the shrimp life cycle in Fig. 2.1 is described as a complex life cycle and not a simple life cycle.

1 *...It consists of four stages.* ¹

2 *...It shows metamorphosis.* ²

[2]

Examiner comment

The first answer describes the life cycle, but does not answer why the life cycle is considered complex ¹. Larval stages needed to be identified, as these are not features of simple life cycles. The second answer is correct, as metamorphosis does not occur in simple life cycles ².

Total marks awarded 1 out of 2

Common mistakes

This question and the next question are ones that involve answering on numbered lines. List questions are marked in a different way from other questions. If there are two marks, only the first two answers can be awarded marks and extra answers are discounted. The mark scheme provides different examples of how list questions are marked.

Question 2(a)(ii)

(ii) Suggest **two** advantages to shrimp of having more than one habitat during its life cycle.

1 *The larvae do not have to compete with the adult for food as the larvae and adult live in different habitats.* ①

2 *They can reach new areas for food.* ②

[2]

Examiner comment

Both answers ① and ② are correct for full credit.

Total marks awarded 2 out of 2

Question 2(b)(i)

(b) Shrimp aquaculture in Asia is increasing annually. Shrimp are grown in large ponds lined with mud. The ponds are stocked with post-larvae, which feed on phytoplankton in the ponds.

In the past, most shrimp farmers collected post-larvae from the wild, to restock their ponds.

(i) Suggest a possible disadvantage of this method.

There will be no shrimp left for future harvests as too many have been harvested. ①

[1]

Examiner comment

This answer is another way of stating overharvesting, so gains the mark. ①

Total marks awarded 1 out of 1

Question 2(b)(ii)

- (ii) Now, most shrimp farmers buy their post-larvae from hatcheries. The majority of the sorting and counting of the post-larvae supplied is done by hand and is often inaccurate.

Recently a Canadian company has developed a device, which uses automated technology to count the larval stages, sort them and work out how much feed to use during cultivation at the hatchery.

Suggest how buying post-larvae from a hatchery which uses this technology could benefit the shrimp farmer.

Less chance of making counting errors, so correct number of shrimp will be in the order 1. The farmer will know exactly how much food to feed the shrimp 2.

..... [2]

Examiner comment

The first statement uses the information provided to identify that there will be less chance of counting errors using the new method 1. The second statement is incorrect as the device calculates the correct feed for the post-larvae in the hatchery not the correct feed that the farmer should use for growing the shrimp 2.

Total marks awarded 1 out of 2

Common mistakes

Candidates need to spend sufficient time reading all the information provided in a question such as this one. Extra time spent reading and processing the information will improve marks.

Question 2(c)(i)

- (c) (i) Many farmers add fertiliser to the ponds in the form of rice bran. The rice bran is rich in nitrogen compounds that can be used by phytoplankton. Shrimp do not eat rice bran.

Suggest how the nitrogen compounds in fertiliser benefit the shrimp.

Phytoplankton use the nitrogen compounds to make amino acids and proteins 1.

Nitrogen compounds pass into the shrimp when they feed on phytoplankton 2.

The shrimp use the nitrogen compounds for growth 3.

..... [2]

Examiner comment

This is a very good answer and states all three points in the mark scheme. The first sentence correctly identifies what the phytoplankton use nitrogen compounds for 1. The wording in 2 could have been improved by stating amino acids or proteins instead of nitrogen compounds. Had not full credit already been obtained, another mark would have been gained for 3, that the nitrogen compounds are used by the shrimp for growth.

Total marks awarded 2 out of 2

Question 2(c)(ii)

- (ii) The pH of water in the shrimp ponds fluctuates during the day and may become too high. Carbohydrates in the fertiliser added to the ponds are a source of carbon for the bacteria that live in the mud lining the ponds.

Use this information to explain how the use of carbohydrates in the fertiliser by the bacteria could result in a reduction of the pH of the water.

Bacteria use the carbohydrate as a food source to provide energy ¹. Bacteria numbers then increase ². When bacteria breathe ³, they release carbon dioxide into the water, which decreases the pH ⁴, so the water becomes more acidic.

.....

[3]

[Total: 12]

Examiner comment

Stating that bacteria use the carbohydrate as a food source would not have been enough to gain a mark, but this has been qualified by adding that the food is an energy source ¹. Although bacterial numbers increase ², a reason (due to reproduction) is required to gain credit. That bacteria release carbon dioxide into the water is correct, but as a result of respiration, not breathing ³. Carbon dioxide is released into the water to lower pH, but more detail is required on dissociation to gain further credit ⁴.

Total marks awarded 1 out of 3

Common mistakes

A very common error is to confuse the terms breathing and respiration. Candidates need to understand the difference between these two terms.

Total marks awarded for Question 2: 8 marks out of 12

Paper 3 – Question 3

Question 3(a)(i)

- 3 Fig. 3.1 shows South Bay, part of a large estuary in California, United States of America. The area is becoming more popular as a year-round tourist destination.

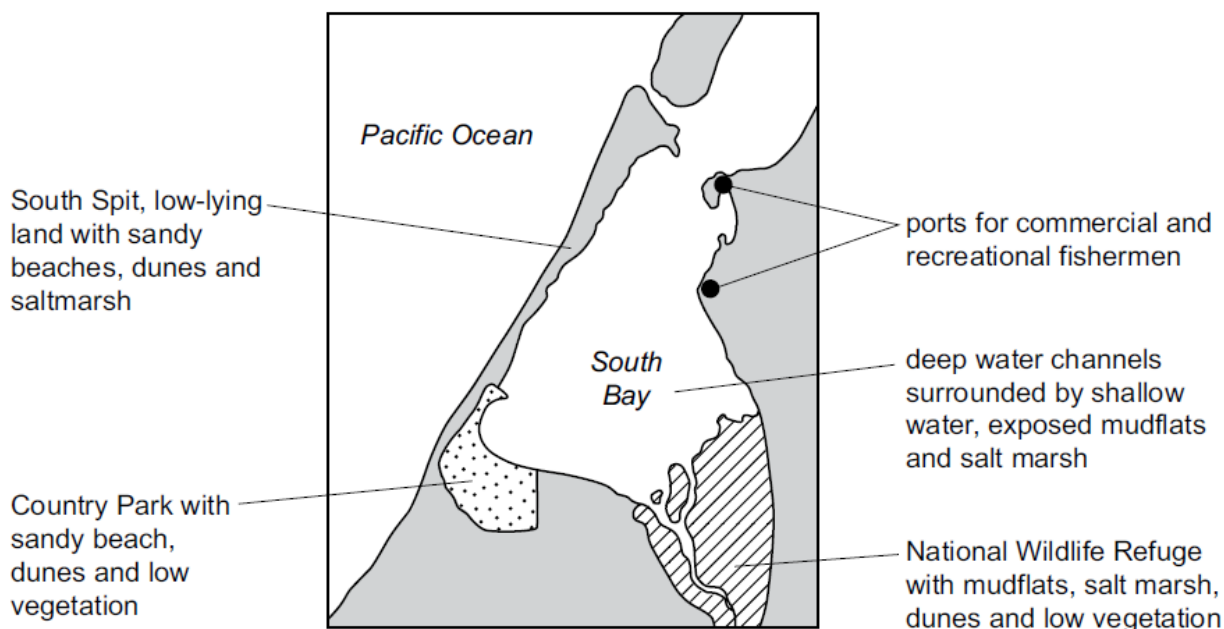


Fig. 3.1

South Bay is important for its variety of habitats, including salt marsh, mudflats and sand dunes, which are all managed to promote biodiversity.

Invasive species such as cordgrass and a new species of marram grass now pose a threat to biodiversity.

- (a) (i) Explain the meaning of invasive species.

Invasive species such as cordgrass and marram grass can spread to areas where.... they are not normally found ¹. They outcompete local species due to their faster growth ² and quickly take over the habitat, so reducing biodiversity ³.

[2]

Examiner comment

Stating that the invasive species can spread to areas where they are not normally found ¹ is not quite the same as stating that they are non-native, so the first marking point cannot be awarded. However, that invasive species outcompete local species due to their faster growth ² is the idea of unchecked population growth, while the fact that they take over the habitat so reducing biodiversity ³ gains marking points two and three, though only 1 mark can be awarded as maximum marks have already been achieved.

Total marks awarded 2 out of 2

Common mistakes

Learning the definitions of key terms in the syllabus is important and can be a way of gaining straightforward marks. However candidates need to ensure that their wording of definitions is precise .

Question 3(a)(ii)

- (ii) Cordgrass now dominates an estimated 90% of salt marshes in the bay and is spreading into mudflats via seeds and fast-growing underground rhizomes. Cordgrass is gradually being removed by regular cutting at ground level.

Suggest **one** advantage and **one** disadvantage of removing the cordgrass by cutting instead of spraying chemicals to kill the plants.

advantage *Cutting is better for wildlife as chemicals will kill all plants, not just chordgrass.* ①

disadvantage *Chemicals will kill the plants, but cutting will mean that they will grow back quickly, so they will need cutting regularly.* ②

[2]

Examiner comment

The candidate has read the information provided and has given a correct advantage ① and disadvantage ② of cutting instead of spraying.

Total marks awarded 2 out of 2

Question 3(a)(iii)

- (iii) The invasive species of marram grass grows across sand dunes at a faster rate than the local species, forming dense clumps, which quickly cover the dune.

Fig. 3.2 shows the western snowy plover, a small shorebird listed as endangered. It feeds on sandy beaches and nests in dunes with little vegetation and areas of low vegetation, close to the shore.



Fig. 3.2

State the meaning of endangered species.

This is a species that is in low numbers. 1
..... [1]

Examiner comment

The definition for an endangered species is not quite enough to gain credit. 1 The candidate needed to add that it was in danger of becoming extinct.

Total marks awarded 0 out of 1

Question 3(a)(iv)

- (iv) Use all the information provided to suggest **and** explain why numbers of western snowy plover are decreasing around South Bay.

Marram grass now covers the sand dunes, where the Plover used to breed, so there

are less areas to breed than in the past ¹. Tourist numbers have increased and

more people will be on the beaches where the Plover feeds, so they will disturb the

bird and it will be unable to feed ² or will have less areas to feed. Both these

activities will reduce the numbers of Plover visiting the area, so causing their

numbers to fall further and this could lead to them becoming extinct ³.

[4]

Examiner comment

This is a good answer and gains full credit. The first sentence ¹ gains marking points 4 and 5, while the next sentence ² gains marking points 1 and 2. There are no further marking points in the last sentence ³.

Total marks awarded 4 out of 4

Question 3(b)(i)

- (b) Ships carry sea water in large tanks for stability when carrying different cargo loads. Water is usually pumped into the ship in one port and discharged in another as new cargo load is taken up. Ships entering South Bay are required to discharge their water far out at sea, before entering the harbour area.

- (i) Suggest how this requirement could help to reduce the spread of invasive species to South Bay.

If any invasive species are in sea water, they are discharged out to sea and therefore

will not be able to reach the coast in South Bay ¹.

[1]

Examiner comment

This is a correct answer ¹.

Total marks awarded 1 out of 1

Question 3(b)(ii)

The ports of South Bay are connected to the Pacific Ocean by deep water channels. Sediment is continually washed into the bay from low-lying land and rivers. Sediment is also brought into the bay by daily tidal flow, especially during winter storms.

Annual dredging removes the sediment to maintain the depth of these channels. The sediment is added to the tidal marsh around the bay, which encourages vegetation growth.

- (ii) Suggest how adding sediment to the tidal marsh will benefit the local human communities living around South Bay.

Adding sediment will increase the height of the marsh area ¹, so protecting the coast from the effects of winter storms that could flood the villages and towns ². Flooding will mean that people will have to move out from their homes, often for several months. Tourism would decrease, so there will be less money for the community. ³

[3]

[Total: 13]

Examiner comment

This answer gains partial credit. The sediment increasing the height of the saltmarsh is the first marking point ¹. The effect of this is to protect the coast from flooding gains the second marking point ². There are no further marks as the candidate has not mentioned how salt marsh plants are important in reducing wave action and how this prevents coastal erosion. The last two sentences ³ make reference to the negative effects of flooding on the local community and so do not answer the question.

Total marks awarded 2 out of 3

Total marks awarded for Question 3: 11 marks out of 13

Paper 3 – Question 4

Question 4(a)

- 4 Giant kelp forests are found in cool-water seas. The giant kelp is food for sea urchins, which are food for rock lobsters.

Around the coast of Tasmania, rock lobster fishing is an important source of income. Overfishing of rock lobster resulted in fishing restrictions being implemented. Fig. 4.1 shows the effect of fishing restrictions on the food chain of rock lobster.

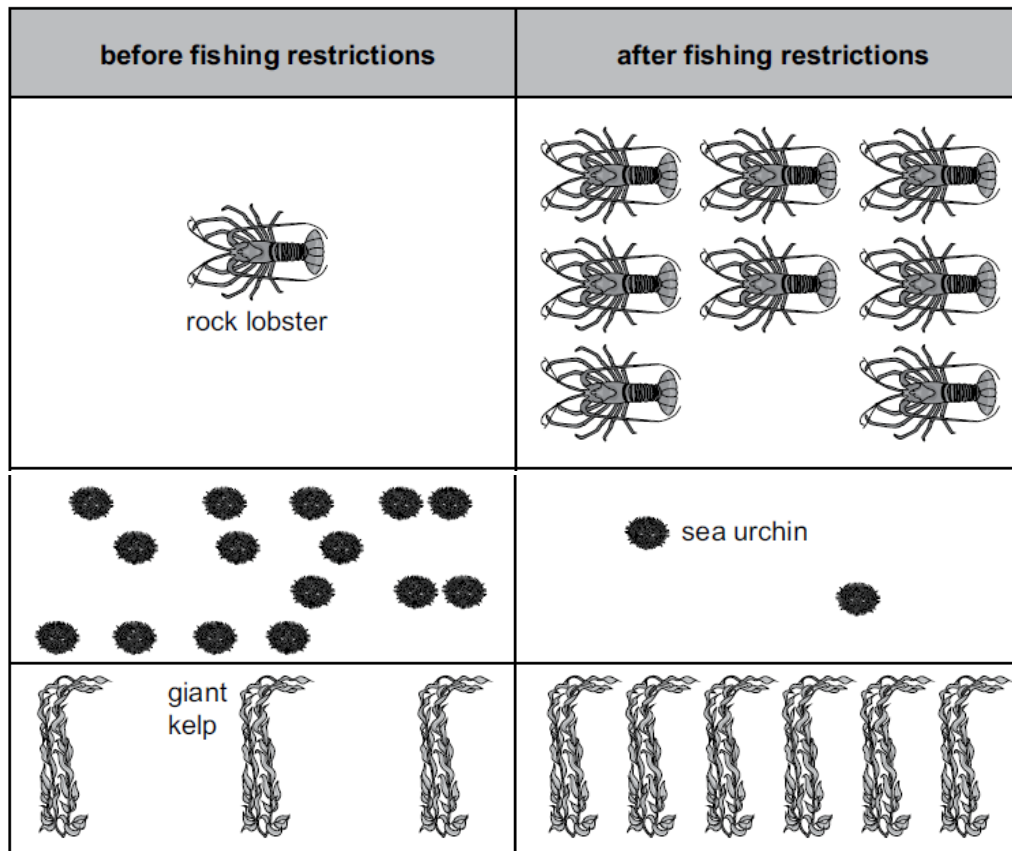


Fig. 4.1

- (a) Use the information in Fig. 4.1 to suggest how fishing restrictions helped to maintain a sustainable food chain for rock lobster fishing.

Fishing restrictions increased lobster numbers ¹, so there were more lobsters to.....
 feed on the sea urchins ². Sea urchin numbers decreased, while giant kelp.....
 numbers increased ³.

[2]

Examiner comment

Fishing restrictions increasing lobster numbers ¹ is not quite enough to gain the first mark as a reason for the increase was required. The second mark is gained for stating that there are more lobsters to feed on the sea urchin, so their numbers decrease ². Although giant kelp numbers increased ³ there is no reason for the increase stated i.e. that there were fewer sea urchins present to eat the kelp.

Total marks awarded 1 out of 2

Question 4(b)

Fig. 4.2 shows the surface water currents around southern Australia and Tasmania.

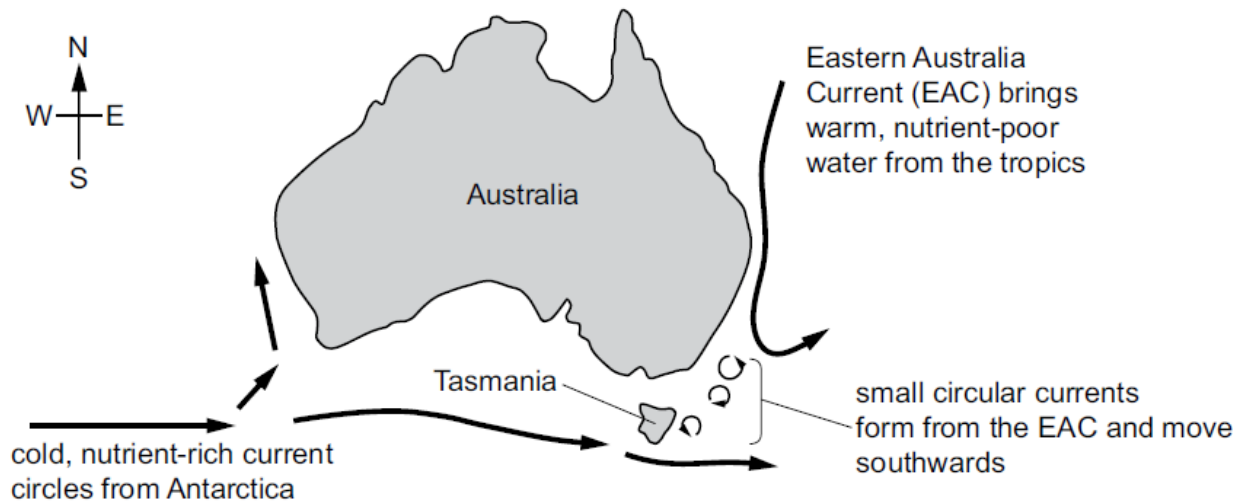


Fig. 4.2

During the past 60 years, the EAC has been gradually moving further south and the frequency of the small circular currents has been increasing.

Long-spined sea urchins are a tropical species that have gradually invaded east Tasmanian waters where they have been able to spawn.

(b) Identify the evidence in this information that could suggest that global warming is happening.

*Warmer water currents from the tropics are gradually moving further south
towards Tasmania ¹.* [1]

Examiner comment

This answer ¹ is the idea of a change in water currents, so gains the mark,

Total marks awarded 1 out of 1

Question 4(c)

- (c) In the year 2000, kelp forests were found all around the coast of Tasmania. By 2017 the kelp forest on the east coast had decreased by 95%.

Use all the information provided in **Question 4** to suggest **and** explain why this decrease in giant kelp forests occurred along the east coast, but not along the west coast of Tasmania.

Only the east coast receives the warm water from the tropics ¹, which is nutrient-poor ², so there are less nutrients for the giant kelp to use for photosynthesis, so there is less growth ³.

On the west coast there are only cold nutrient-rich currents from Antarctica, so

There are more nutrients for the giant kelp to use for photosynthesis, so there is more growth ⁴.

[4]

[Total: 7]

Examiner comment

That only the east coast receives warm water from the tropics ¹, which is nutrient-poor ² are the first and third marking points. Less nutrients available for photosynthesis and growth ³ gains the fourth marking point. The candidate then gives a reverse argument for the west coast of Tasmania ⁴, so cannot gain further credit as there is no mention of the increase in sea urchins on the east coast and their effect on kelp numbers.

Total marks awarded 3 out of 4

Common mistakes

Candidates often make a valid point, which gains credit, but then state the reverse argument, which cannot receive further credit.

Total marks awarded for Question 4: 5 marks out of 7

Paper 3 – Question 5

Question 5(a)

- 5 (a) Plastic waste in the marine environment is an increasing cause for concern.

The first world survey in 2015 estimated that eight million tonnes of plastic waste enter the oceans each year.

Microplastics have been found in the tissues of many different marine organisms.

Discuss the impacts of microplastics on marine ecosystems.

Plastics break down over time to form very small pieces called microplastics ¹.

Microplastics are suspended in sea water and are carried by ocean currents so that they are now found from the Arctic to the Antarctic ². Consumers such as mussels and oysters, which feed on phytoplankton, also take in microplastics ³ as they are the same size as phytoplankton ⁴. Microplastics cannot be broken down and digested in the body ⁵, so they can build up in the intestines ⁶. If we eat lots of mussels and oysters, our bodies will also contain microplastics ⁷. Some microplastics contain toxins, which cannot be removed from the body and cause harm ⁸.

[8]

Examiner comment

The candidate does not quite state enough to gain the first marking point as they have not stated that microplastics are less than 5 mm in size ¹. That they are carried by currents to the Arctic and Antarctic ² is a marginal mark for reaching all parts of the ecosystem, which is marking point four. As microplastics are the same size as phytoplankton, they are consumed by mussels and oysters ³ and ⁴, this gains marking points five and six. Microplastics are unable to be digested ⁵ is marking point nine and that they build up in the intestines ⁶ is another marginal mark for marking point ten. Ideally the candidate should have mentioned that some of the microplastics were passed out with faeces. Microplastics build up in our bodies ⁷ when we eat shellfish, is the idea of marking point eleven. Unfortunately the candidate has not quite stated enough about toxins ⁸ to gain further credit, as 'causing harm' is too vague. Reference needed to be made to toxins being absorbed, to biomagnification or how the toxin caused harm.

Total marks awarded 6 out of 8

Question 5(b)

(b) Discuss strategies to limit the release of plastics and microplastics into the marine ecosystem.

Plastic waste is now a worldwide problem and is causing pollution in our rivers and oceans and on land. However, we have been made more aware of the problem as a result of television programmes such as Blue Planet, news reports, newspapers and the emphasis on environmental topics in schools ①.

We can all recycle ② more of our plastic waste by taking them to recycling bins. We can avoid using single use plastics ③ and can use alternatives such as glass or paper ④. We can take our own plastic bags to the supermarket to avoid using their carrier bags each time we shop, so re-using the bags we already have ⑤.

Finally, we can introduce laws to fine people for throwing away plastic ⑥.

[7]

[Total: 15]

Examiner comment

Awareness of the pollution caused by plastic ① is marking point eight, while the increase in recycling ② gains marking point seven. Avoiding single use plastics ③ gains marking point three, while the examples of alternatives ④, glass and paper, gains marking point five. Re-using our own plastic bags at supermarkets ⑤ gains marking points one, two and thirteen. Introducing laws regarding plastic waste ⑥ is the idea of marking point four, though full credit has already been achieved.

Total marks awarded 7 out of 7

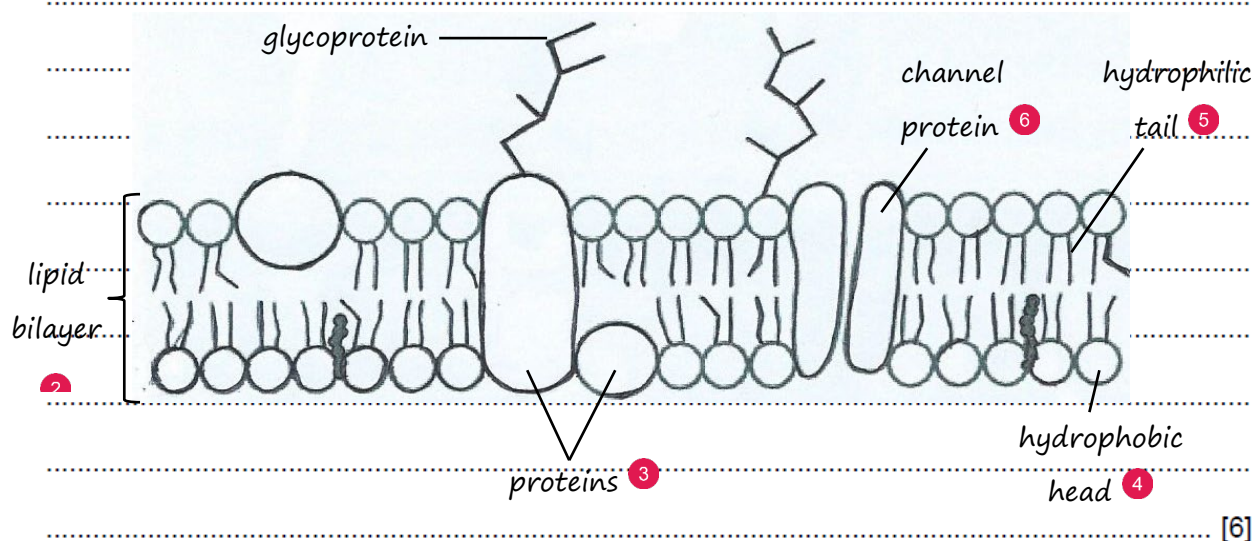
Total marks awarded for Question 5: 13 marks out of 15

Paper 3 – Question 6

Question 6

6 Describe the structure of the cell surface membrane.

The cell membrane forms a barrier around the cell, so controls the entry of gases and liquids, which can enter the cell by diffusion, osmosis or active transport ¹. The cell membrane structure is shown below.



Examiner comment

The introductory sentence ¹ is stating the function of the cell membrane and is therefore not answering the question and cannot gain credit. The diagram shows a lipid bilayer ², so gaining the second marking point. Had the word 'phospholipid' been added to the label, then the first marking point could have been awarded as well. Proteins are shown scattered throughout the bilayer in various forms ³, including channel proteins, ⁶ so gaining marking points five, six, nine and ten. Hydrophobic and hydrophilic ⁴ and ⁵ are the wrong way around, so marking points three and four cannot be awarded. Further credit could have been gained had the candidate included a reference to the cell membrane being a fluid-mosaic model and proteins moving in the bilayer.

Common mistakes

Candidates often find it difficult to describe cell membrane structure. Although Section B contains free response questions which require longer answers, it is acceptable to include a diagram to help to explain the structure. However, any diagram needs to be fully labelled to gain credit.

Total marks awarded for Question 6: 5 out of 6

Paper 3 – Question 7

Question 7

- 7 Human activity has extensively damaged mangrove forests.

Explain the importance of mangrove forests and discuss the strategies for the replanting of mangroves.

Mangroves are found in tropical areas where they are important for reducing wave action, so protecting the coast from erosion ¹. There are several species of mangrove e.g. red mangrove and white mangrove. They have aerial roots which absorb gases from the air. The underwater roots trap sediment ¹, so making the surrounding shallow water clear. The roots for important nursery areas for juvenile fish and other marine species ² as they provide protection from predators. Mangroves can also be used as nesting sites for birds ³ and their timber can be used to build houses and for firewood ⁴.

Many countries are restoring mangroves around their coasts as removal has caused flooding in coastal communities. Mangrove seedlings are planted in shallow water or in the mud flats when the tide is out ⁵. Mangrove roots need to be in water most of the time ⁶. If local communities are involved in the replanting, then they will look after the seedlings and the replanting will have more chance of success ⁷.

[9]

Examiner comment

The candidate understands the importance of mangroves and gains the maximum five marks for this part of the question. Protecting the coast from erosion ¹ in the first sentence can be linked with roots trapping sediment ¹ later on to gain marking point six. That the roots form nursery areas for juvenile fish ², gains marking point five, while forming nesting sites for birds ³, gains marking point four. Mangroves providing timber for houses and firewood ⁴ gains marking point ten and can also gain the first marking point as the collection of timber would represent a suitable reason for mangrove decline.

Replanting strategies are new to the syllabus and there are a maximum of five marks for this part of the question. As the candidate has already gained five marks, they can only obtain another four for maximum credit. Planting mangrove seedlings at low tide ⁵ will gain marking point thirteen, though 'growing the seedling first in a greenhouse' would have improved their answer. That the roots need to be in water most of the time ⁶, gains marking point twenty. Further credit is gained for stating that involving the local community increases the chances of success ⁷, which is marking point twenty-two. Further credit could have been

awarded if the candidate had mentioned the importance of water flow and slope, or a reference to natural re-planting as they have floating seeds.

Total marks awarded for Question 7: 8 out of 9

Cambridge Assessment International Education
The Triangle Building, Shaftesbury Road, Cambridge, CB2 8EA, United Kingdom
t: +44 1223 553554
e: info@cambridgeinternational.org www.cambridgeinternational.org

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