

GEOGRAPHY

Unit 3: Area of Study 1 SAC: Test / Data analysis

Water use and management of the Murray-Darling Basin

PART 1

Time: 40 mins

Marks: 30

Read all questions carefully before answering.

1. Using **figure 1**, identify **two** resources shown in the photograph and classify them each in two ways, justifying your classifications.

/ 4 marks

2a) Referring to the water table, describe one way in which water can be classified.

b) How and why is this perception of water changing over time in Australia?

c) Australia's annual rainfall is not all that low compared with many countries. What is the main problem with rainfall in Australia? Explain.

/ 6 marks (3x2)

3a) From **figure 2**, identify the sub-regions of the Murray-Darling Basin (MDB) at numbers 1 and 7.

i) _____

ii) _____

b) Explain how these regions differ in terms of the following.

i) Speed of river flow:

ii) Water availability:

iii) Salinity levels:

/ 5 marks (5x1)

4. Describe how the regulation of the MDB river system has impacted both people and the environment near the sub-region at number 7 on figure 2.

/ 2 marks

5. Describe the spatial interaction between the MDB and Australia's major cities, located outside the Basin.

/ 2 marks

6a) Name 2 forms of agriculture that use large amounts of water for a small economic gain:

i) _____

ii) _____

b) Name 2 forms of agriculture that use little water for a high economic gain:

i) _____

ii) _____

/ 2 marks

7a) Describe the distribution of water storages in the MDB.

b) Explain one reason why this distribution pattern exists.

/ 4 marks (2x2)

8a) Describe any spatial associations that exist between vegetation types in the MDB and rainfall.

b) Describe the distribution of cotton in the MDB.

c) Explain one reason why cotton production has increased in the MDB in recent years. Is this a sustainable change?

/ 5 marks (2+1+2)

TOTAL _____ / 30



Figure 1: Sheep grazing on a wind farm.



Figure 2: Murray-Darling Basin

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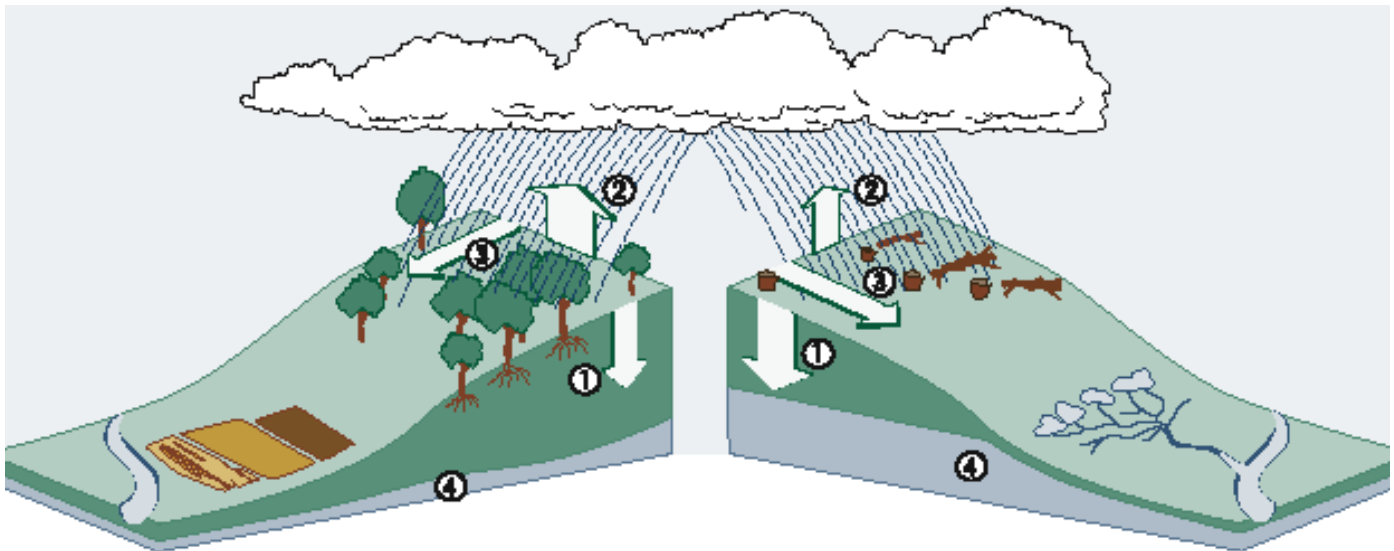
PART 2

Time: 30 mins

Marks: 20

Read all questions carefully before answering.

1a) On **figure 1** below, label the diagram to show how salinity occurs.



/ 2 marks

b) Explain why the issue of salinity is treated with differing degrees of importance in different regions of the Murray-Darling Basin (MDB).

/ 2 marks

2a) Describe three past events that have contributed to the regulation of the MDB system.

b) List and describe two benefits and two costs of this regulation.

/ 7 marks (3+4)

3. Complete the table below on conflicts over water use within sub-regions of the MDB (give one example for each factor).

SHEEP factors	Conflict and sub-region
Social	
Economic	
Environmental	

Political	
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/ 4 marks

4a) In the table below, briefly describe the following policies in the MDB.

Name of policy	Policy
National Water Initiative	
The Cap	
Trading water allocations	

b) Explain, with reference to two of the policies above, how they try to ensure a balance between environmental and economic needs within the MDB.

/ 5 marks (3+2)

TOTAL _____ / 20

= <u> </u> 50
