

SECTION 1: SHORT ANSWER QUESTIONS (ALL questions are compulsory – total marks 75,  
converted to 50% of test)

- (1) Describe what is meant by the term wadi. (5 MARKS)
- (2) Animals exhibit a wide range of adaptations to desert environments. Give two examples each of:
- (a) novel and specific adaptations,
  - (b) refinements of existing processes
  - (c) common adaptations (12 MARKS)
- (3) Briefly define the following terms. (6 MARKS)
- (a) arid land
  - (b) rangeland
  - (c) pastoral land
- (4) List FIVE traditional or new uses of arid lands, with brief notes on (a) why they are found in arid lands and (b) any associated environmental problems. (5 MARKS)
- (5) Briefly define the following types of arid-zone plant survival techniques. (4 MARKS)
- (a) arido-passive
  - (b) arido-active
- (6) Why are there few stem-succulents in Australian deserts, compared to deserts elsewhere? (5 MARKS)
- (7) Briefly define the term “woody weed”. (5 MARKS)
- (8) Give three characteristics of arid lands that mean they require careful management. (6 MARKS)
- (9) Briefly describe FOUR causes for desert climate development on a continent. (8 MARKS)
- (10) Briefly describe the difference between (a) a run-on area and (b) a run-off area, and the particular importance of these in rangelands. (8 MARKS)
- (11) What is Goyder’s Line? (5 MARKS)
- (12) Name three plant families that are common in the Australian arid zone, and briefly describe some characteristics of the family that adapt it to arid climates. (6 MARKS)

(LONG-ANSWER QUESTIONS ON NEXT PAGE)

LONG ANSWER QUESTIONS (Choice: Answer TWO ONLY of the following three questions)

(20 MARKS each, a total of 40 marks, converted to 50% of test)

Remember to give your answers in full sentences & paragraphs, providing literature sources, and diagrams where appropriate.

- (1) Australian arid land birds display four broad behavioural adaptations to arid environments: nomadism, torpor, terrestriality and breeding strategies. Describe each of these adaptations and how they confer an advantage in an arid environment (20 MARKS)
- (2) Although the Australian deserts have many climatic features in common with deserts elsewhere, they are also unique in that some of these features are much more extreme in Australia. With reference to Williams & Calaby (1985), Nicholls (1991) and Stafford Smith & Morton (1990), describe why this is so.
- (3) Describe, using diagrams, the similarities and differences between: (a) the succession model and (b) the state-and-transition model of vegetation, and how these have tended to determine the management of arid lands.