



NSW Education Standards Authority

2018 HIGHER SCHOOL CERTIFICATE EXAMINATION

Geography

General Instructions

- Reading time – 5 minutes
- Working time – 3 hours
- Write using black pen
- Calculators approved by NESA may be used
- A Stimulus Booklet is provided with this paper

Total marks: 100

Section I – 20 marks (pages 2–9)

- Attempt Questions 1–20
- Allow about 35 minutes for this section

Section II – 40 marks (pages 13–20)

- Attempt Questions 21–24
- Allow about 1 hour and 10 minutes for this section

Section III – 40 marks (page 21)

- Attempt TWO questions from Questions 25–27
- Allow about 1 hour and 15 minutes for this section

Section I

20 marks

Attempt Questions 1–20

Allow about 35 minutes for this section

Refer to the Stimulus Booklet

Use the multiple-choice answer sheet for Questions 1–20.

- 1** A government plans to relocate its offices away from the city centre and is encouraging higher density residential estates in the suburbs.

Which combination of urban dynamics does this represent?

- A. Urban village and spatial exclusion
- B. Decentralisation and spatial exclusion
- C. Urban village and urban consolidation
- D. Decentralisation and urban consolidation

Refer to Source A on page 1 of the Stimulus Booklet to answer Question 2.

- 2** What is the approximate percentage of people who travel to work in a car?
- A. 10%
 - B. 30%
 - C. 60%
 - D. 70%

- 3 The diagram shows an extract from a map of a town.



Which row of the table correctly identifies the type of map shown and a possible application of the map?

	<i>Type of map</i>	<i>One possible application</i>
A.	Precis	Town planning
B.	Precis	Weather forecasting
C.	Cadastral	Town planning
D.	Cadastral	Weather forecasting

Refer to Source *B* on page 1 of the Stimulus Booklet to answer Questions 4–5.

- 4** What percentage of the labour force in 1990 was engaged in manufacturing?
- A. 12%
 - B. 19%
 - C. 23%
 - D. 26%
- 5** Which sector shows the greatest relative change in its percentage of the labour force from 1950 to 2010?
- A. Mining
 - B. Services
 - C. Agriculture
 - D. Manufacturing

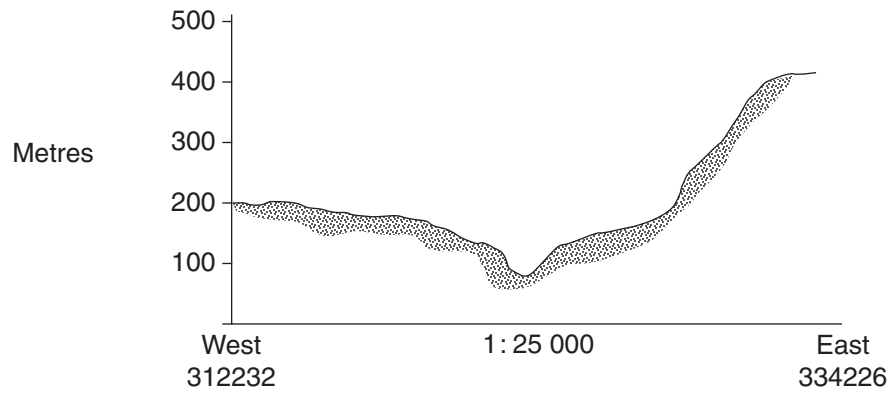
Refer to Source *D* on pages 2–3 of the Stimulus Booklet to answer Questions 6–13.

- 6** What is the density of buildings, per square kilometre, in AR 3223?
- A. 3
 - B. 6
 - C. 12
 - D. 24
- 7** What is the approximate bearing of the Old Station building (GR 331244) from the yards in AR 3026?
- A. 120°
 - B. 135°
 - C. 300°
 - D. 315°

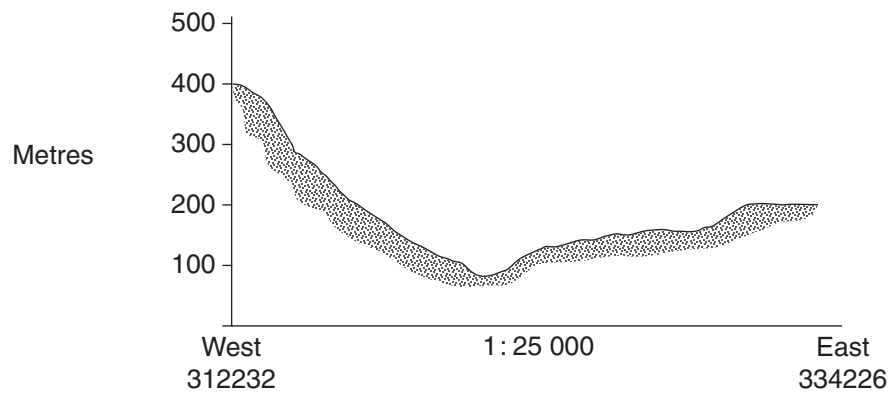
- 8** Which area has the steepest slopes?
- A. AR 3025
 - B. AR 3222
 - C. AR 3226
 - D. AR 3321
- 9** What is the approximate area of closed forest that is visible in the north-east quadrant of the map?
- A. 0.3 km^2
 - B. 0.7 km^2
 - C. 1.1 km^2
 - D. 1.5 km^2
- 10** Which location has a sheltered aspect when winds are coming from the east?
- A. GR 310254
 - B. GR 316246
 - C. GR 318233
 - D. GR 334239
- 11** A canoe travels at 5 km/h. Approximately how many minutes would it take to travel on the Hastings River from easting 32 to easting 33?
- A. 5
 - B. 15
 - C. 25
 - D. 35

- 12 Which of the following diagrams best represents the cross-section between GR 312232 and GR 334226?

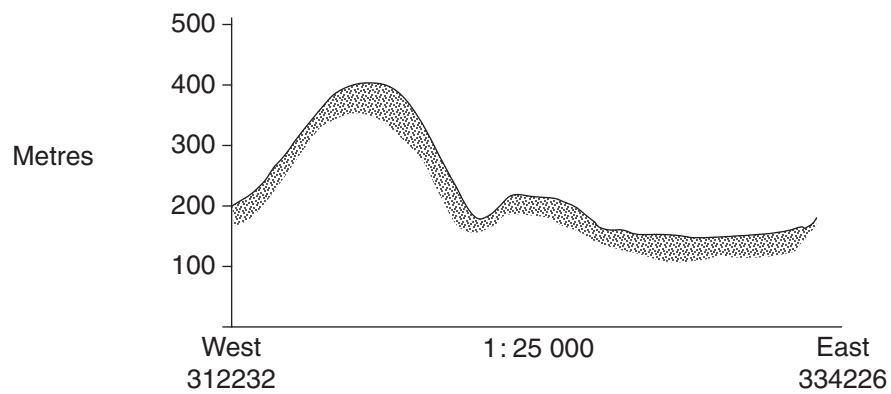
A.



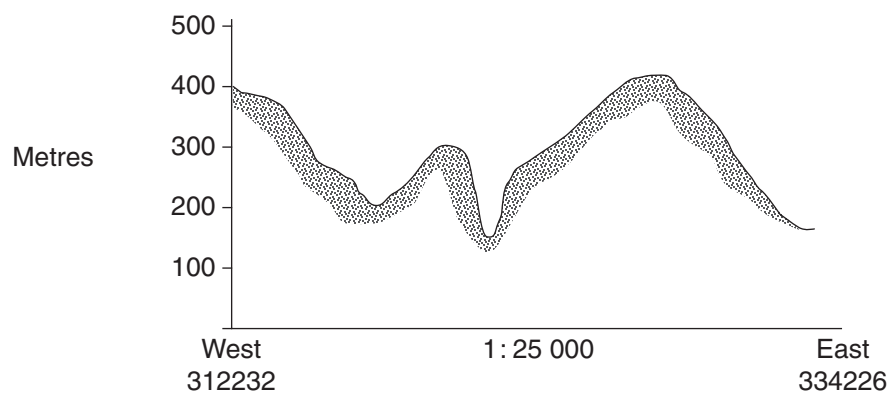
B.



C.



D.



13 What is the average gradient between *X* (AR 3123) and *Y* (AR 3326)?

- A. 1:7
- B. 1:37
- C. 1:150
- D. 1:250

Refer to Source *D* on pages 2–3 and Source *E* on page 3 of the Stimulus Booklet to answer Question 14.

14 Which of the following is most likely to be the scale of the aerial photograph in Source *E*?

- A. 1:12 500
- B. 1:25 000
- C. 1:50 000
- D. 1:100 000

15 Which of the following shows a combination of political factors that influence the nature and spatial patterns of global economic activity?

- A. Tariffs and quotas
- B. Consumer demand and resource use
- C. Tax rates and the mobility of labour
- D. Government spending and changing lifestyles

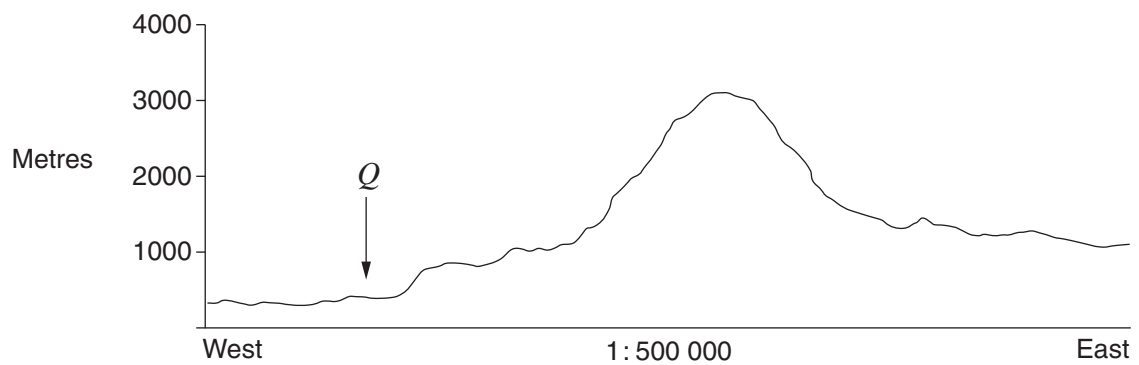
16 Which source from the Stimulus Booklet has the largest scale?

- A. Source *C*
- B. Source *D*
- C. Source *E*
- D. Source *F*

17 Which of the following lists contains ONLY biogeographical processes operating in ecosystems?

- A. Landslides, precipitation, succession
- B. Landslides, run-off, soil erosion
- C. Invasion, precipitation, run-off
- D. Invasion, resilience, succession

Refer to the following diagram to answer Questions 18–19.



Topography	Coastal plain	Gently sloping	Steep		Gently sloping
Land use	Urban	Dairy cattle grazing	Forestry	Unused	Beef cattle grazing
Population	Dense	Scattered	Nil		Sparse

18 What type of land use can be found 20 km east of Point *Q*?

- A. Forestry
- B. Unused
- C. Beef cattle grazing
- D. Dairy cattle grazing

19 What is the vertical exaggeration of the cross-section?

- A. 5
- B. 10
- C. 20
- D. 50

- 20** A manufacturing enterprise supplies windows to construction companies. Management is looking to increase both the supply of aluminium frames and the number of assembly line workers to satisfy demand.

Which row of the table correctly identifies both the internal and external linkages of the manufacturing enterprise?

	<i>Internal Linkage</i>	<i>External Linkage</i>
A.	Construction company	Assembly line
B.	Assembly line	Management of workers
C.	Aluminium supplier	Construction company
D.	Management of workers	Aluminium supplier

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Centre Number

Geography

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Student Number

Section II Answer Booklet

40 marks

Attempt Questions 21–24

Allow about 1 hour and 10 minutes for this section

Instructions

- Write your Centre Number and Student Number at the top of this page.
- Use the Stimulus Booklet and your knowledge of geography to answer Questions 21–24 in the spaces provided. These spaces provide guidance for the expected length of response.
- Show all relevant working in questions involving calculations.
- Extra writing space is provided at the back of this booklet.
If you use this space, clearly indicate which question you are answering.

Please turn over

Do NOT write in this area.



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Question 22 (9 marks)

- (a) Outline why utility value is a reason to protect ecosystems.

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- (b) Compare the effect of latitude on the nature of TWO different ecosystems at risk.

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- (c) Using an example, describe how nutrient cycling affects ecosystems.

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Question 23 (13 marks)

- (a) Outline the spatial distribution of megacities in the developing world. Include examples in your answer. **3**

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- (b) How have megacities in the developing world responded to TWO of the challenges of living in megacities? **4**

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Question 23 continues on page 17

Question 23 (continued)

- (c) Using examples, explain the relationship between world cities and other urban centres in terms of dominance and dependence.

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End of Question 23

Question 24 (13 marks)

Answer parts (a) and (b) with reference to an economic activity you have studied.

Economic activity:

- (a) Outline how ONE biophysical factor affects the spatial pattern of this economic activity.

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- (b) Discuss how the use of technology has affected the nature of this economic activity.

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Question 24 continues on page 19

Question 24 (continued)

- (c) Explain how an individual economic enterprise improves its ecological sustainability.

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Economic enterprise:

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End of Question 24

Section II extra writing space

If you use this space, clearly indicate which question you are answering.

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Geography

Section III

40 marks

Attempt TWO questions from Questions 25–27

Allow about 1 hour and 15 minutes for this section

Answer both questions in the Section III Writing Booklet. Extra writing booklets are available.

Your answers will be assessed on how well you:

- demonstrate geographical knowledge and understanding relevant to the question
 - communicate ideas and information using geographical terms and concepts appropriately
 - refer to case studies, illustrative examples and the Stimulus Booklet where appropriate
 - present a sustained, logical and cohesive response
-

Question 25 (20 marks)

Explain how locational factors have influenced the character of an economic enterprise operating at a local scale.

Question 26 (20 marks)

Discuss the effects of urban dynamics on a large city in the developed world.

Question 27 (20 marks)

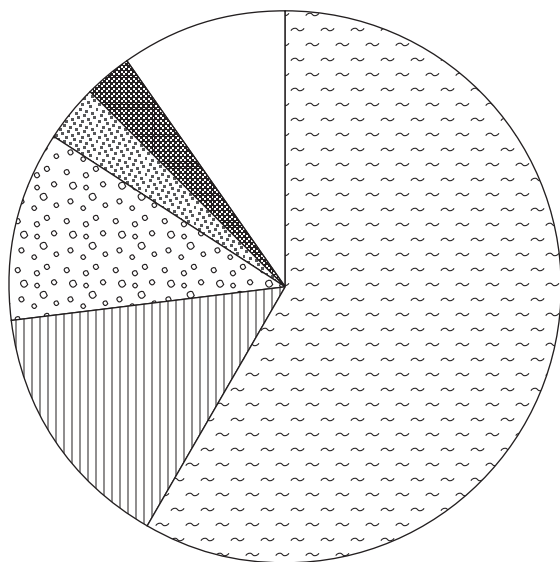
Assess the effectiveness of the strategies that have been used to manage the threats to at least ONE ecosystem at risk.

End of paper

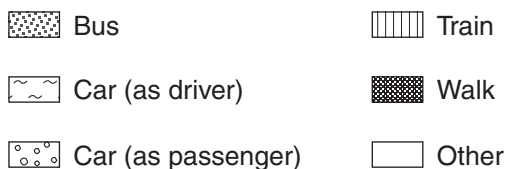
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Geography – Stimulus Booklet

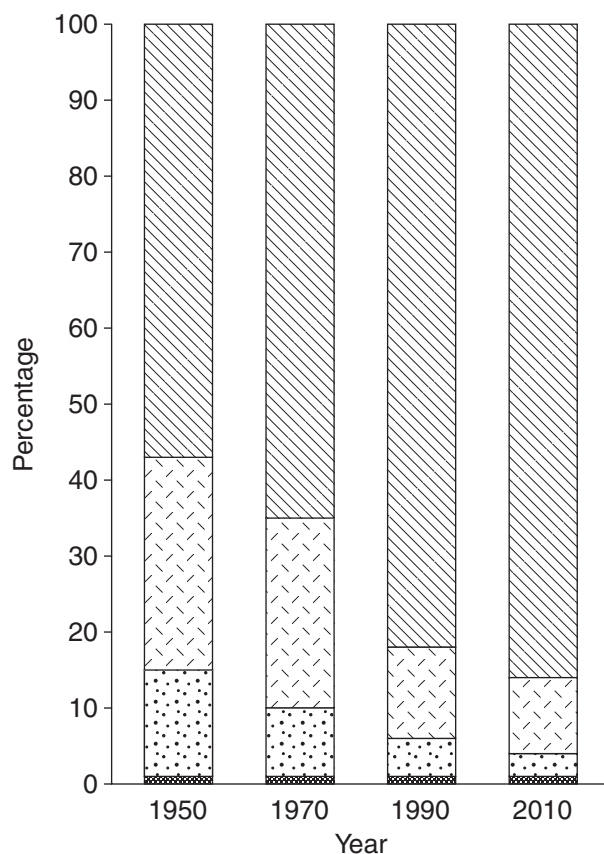
Source A – Method of travel to work



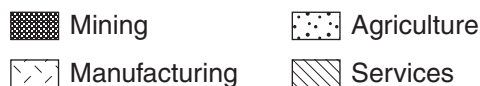
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Source B – Labour force (sector %)



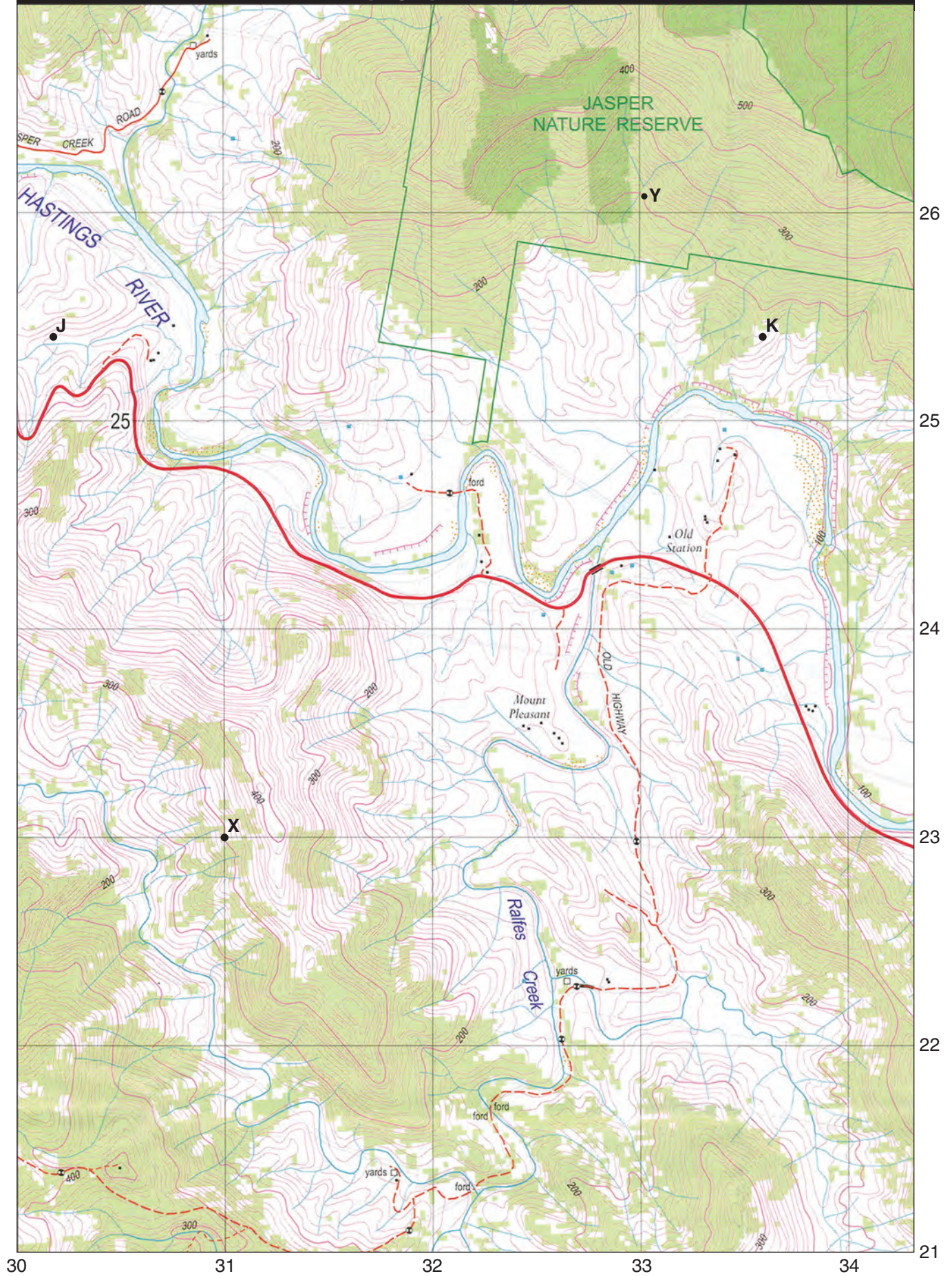
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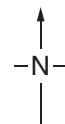
Source C – Vernazza, Italy





















Source D – Yarras area (NSW) topographic map extract



SCALE 1 : 25 000
0 km 0.5 1 2 km
CONTOUR INTERVAL 10 METRES



Legend for Source *D*

	Secondary road		Closed forest: 80–90% crown cover
	Vehicular track: Stock grid		Open forest: 50–80% crown cover
	Road tunnel. Crossing		Cleared land
  	Landmark feature. Stockyards. Mine		Perennial stream
 	Water tank or reservoir. Ground tank or dam		River
	Ancillary contour. Spot height		Building, small. Building, large. Homestead
	Contours. Depression contour		National Park, Nature Reserve or State Conservation Area
	Cliff, with relative height. Rocky pinnacle		

Source *E* – Yarras area aerial photograph



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Source *F* – Satellite image of Australia



Infrared image courtesy of the Japan Meteorological Agency.
Blue Marble surface image courtesy of NASA.