

Marks: 75 Time: 1 ½ hours

QUESTION 1 – MULTIPLE CHOICE

1.1. A ✓

1.2. C ✓

1.3. A ✓

1.4. B ✓

1.5. C ✓

1.6. A ✓

1.7. D ✓

1.8. C ✓

1.9. C ✓

1.10. B ✓

1.11. C ✓

1.12. A ✓ 1.13. B ✓

1.14. A ✓

1.15. A ✓ (15x1) (15)

[15]

QUESTION 2 – MAP CALCULATIONS

2.1. $0.6 \text{ cm x } 0.5 = 0.3 \text{ km } \checkmark$

(3x1) (3)

2.2.
$$G = \frac{H}{D}$$

$$H = 1701 - 1693$$

$$= 8 m \checkmark$$

$$D = 2.7 \times 0.5$$

$$= 1,35 \times 1000$$

$$= 1350 m$$

$$G = \frac{8}{1350} \div \frac{8}{8}$$

$$G = 1:168,75 \checkmark$$
 (4x1) (4)



2.3. Length: $24 \times 0.5 = 12 \text{ km} \checkmark (accept 11.95 \text{ km to } 12.05 \text{ km})$ Breadth: $18,5 \times 0,5 = 9,25 \text{ km} \checkmark (accept 9,2 \text{ km to } 9,3 \text{ km})$ $A = I \times b$ $= 12 \times 9.25 \checkmark$ $= 111 \text{ km}^2 \checkmark (accept 109,94 to 112,065 km}^2)$ (4x1) (4)2.4. 2017 - 2001 = 16 years \checkmark 16 x 8' = 128' change ✓ $20^{\circ}28' + 128' = 22^{\circ}36' \checkmark W \text{ of TN } \checkmark$ (4x1) (4)2.5. MB = TB + MD $TB = 90^{\circ} \checkmark (accept 1 degree leeway either side)$ $MB = 90^{\circ} + 22^{\circ}36'$ = 102°36′ 🗸 (3x1)(3) 2.6. 28°16′45″S ✓ (accept 43″ to 47″); 29°05′46″E ✓ (accept 44″ to 48″) (2x1)(2) [20]

QUESTION 3 – APPLICATION AND INTERPRETATION

3.1. Water for irrigation for farms ✓ ✓ Recreation (swimming, fishing, skiing) ✓ ✓ For domestic use by the families living on the farms \checkmark (any two) (Dams are not big enough for large-scale domestic use or hydro-electric power) (2x2) (4) 3.2. Non-perennial 🗸 🗸 The river only flows during the wet / rainy season ✓ ✓ (4) (2x2)3.3. 3.3.1. Manufacturing ✓ ✓ (1x2)(2) Land, water or air pollution 🗸 🗸

3.3.2. Land, water or air pollution ✓ ✓

Chemicals in the soil and water ✓ ✓

Noise pollution ✓ ✓

Expansion of the industrial area may lead to removal of natural vegetation and soil

erosion ✓ ✓ (any TWO suitable answers) (2x2) (4)



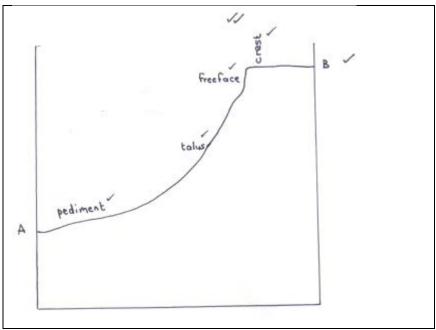
3.3.3. The train station is located in the industrial area, which is ideal for transporting manufactured goods to domestic markets. ✓ ✓

(accept any suitable explanation.)

(1x2) (2)

3.4.

3.4.1. Sketch:



2 marks for correct shape of slope

1 mark for labels A and B

(1x3) (3)

3.4.2. Labels on diagram (1 mark each).

(4x1) (4)

3.4.3. Rockfalls ✓

- (1x1) (1)
- 3.5. Any suitable tertiary activity (e.g. hospitals, schools, sewage works, electricity lines) 🗸
- (1x1) (1)

[25]

QUESTION 4 - GIS

4.1. The GIS is a geographical information system. ✓

This system is accessible from any computer and provides all information known about any place in the world. <

Information can be accessed by inputting coordinates •

Information can be viewed in "layers" to give an accurate picture of a location ✓

(Any two correct points) (2x1) (2)



4.2.	Satellites take photos of Earth from space ✓ ✓	(1x2)	(2)
4.3.	Spatial – describes the location of features using co-ordinates ✓ ✓		
	Attribute – information about or values given to an area or place \checkmark	(2x2)	(4)
4.4.			
4.4.1.	Point: e.g. school, police station, spot height ✓		
	Line: e.g. road, river, electrical lines ✓		
	Polygon (area): e.g. golf course, dam ✓	(3x1)	(3)
4.4.2.	The entrepreneur could get information on:		
	Location of existing burger restaurants 🗸 🗸		
	Location of middle- and high-income suburbs ✓ ✓		
	Existing infrastructure 🗸 🗸		
	Main transport routes ✓ ✓		
	Suppliers ✓ ✓		
	Population numbers 🗸 🗸		
	Travel habits ✓ ✓		
	(any TWO suitable answers)	(2x2)	(4)

GRAND TOTAL: [75]

[15]