



TOM NEWBY SCHOOL
TERM 4 FORMAL ASSESSMENT



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MEMO

Subject	Geography	Examiner	Miss. v Coppenhagen
Date	November 2022	Total marks	30 marks
Grade	5	Duration	1 hour
		Moderator	Mrs. Steyn

QUESTIONS	ANSWERS	MARK	LEVEL
SECTION A		[10]	
QUESTION 1		[4]	
1.1	It is a long-term weather pattern in an area.	1	2
1.2	The amount of water vapour in the air.	1	2
1.3	This tells us how hot or cold the air is. We use words like hot, warm, cool, and cold to describe different temperatures.	1	2
1.4	Water that falls from a cloud is called precipitation.	1	2
QUESTION 2		[6]	
2.1	If there is one wrong answer NO MARK a) Easterly wind b) North-East	1	3
2.2	If there is one wrong answer NO MARK a) Cloudy with rain b) Partly cloudy	1	3
2.3	Rain	1	2
2.4.1	If there is one wrong answer NO MARK June July August	1	4
2.4.2	Winter	1	3
2.4.3	81-84mm	1	3
SECTION B		[20]	
QUESTION 3		[16]	
3.1	Coal is something that is formed over millions of years. Like most minerals, it is a non-renewable resource. It is formed from plant material and is therefore not a mineral.	2	4

3.2	- Dead plant and animal matter from millions of years ago gets covered with mud, rain, and lava. - The weight of the layers on top of each other causes pressure and heat and so the once living trees change to dead carbon. - Coal is found in layers with the oldest layers deep down and the youngest layers close to the surface.	3	5
3.3	Soaps, aspirins, fertilizers, dyes, solvents, shampoos, tennis rackets, mountain bikes and fabrics.	3	3
3.4	a) To harden steel. Make dyes, to colour paint, shiny surfaces. b) electrical wiring, pot, pans, pipes in plumbing c) jewellery, batteries for hearing aids, purify water	3	4
3.5	a) Air pollution -Dust from drilling and blasting pollutes the air. -In coal mines, digging coal out of the ground releases harmful gases into the air. -Wind lifts fine particles of rock in waste dumps into the air. -Coal mine dumps often catch fire. The burning coal releases harmful gases. b) Water pollution -Rainwater passing through mine dumps is polluted by dust and chemicals in the dumps. -Chemicals are added to water to separate minerals from the rock. The wastewater is often piped into a river. -Polluted water from inside the mine flows onto the surface. This is known as acid mine drainage	2	3
3.6	-Rockfalls: More miners are killed by rock falls underground than any other accidents.	3	3

	-Heat stroke: The hard work for long hours at high temperature causes some miners to collapse. -Lung disease: The dust from blasted rock damages miners' lungs and affects their breathing.		
QUESTION 4		[4]	
	Open pit mining is used when the minerals or the coal layer is close to the surface of the earth. Shaft mining or underground mining is used when the minerals or coal layers are deep under the surface. With open pit mining the covering of rock and soil is dug out and the hole gets larger and deeper. The hole is then left open. It is wide enough on the sides for trucks and lorries to drive in to collect the mineral or coal. Once the mineral or coal is reached, drilling and blasting break up the mineral or coal layer. With shaft mining a shaft is drilled and blasted into the ground. Then tunnels are dug out horizontally from the shaft. A lift system is used to take the miners down into the mine and back to the surface again. The deeper we go into the earth, the hotter it becomes. Other shafts must be drilled so that clean air can get into the mine. These are called ventilation shafts. Underground water must be pumped out of the mine otherwise the mine will flood. However, while the extraction of mineral resources provides developing countries with their economy, it also has a huge risk to the environment.	4	5