UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

GCE O Level

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2059 PAKISTAN STUDIES

2059/02

Paper 2 (Environment of Pakistan) maximum raw mark 75

This mark scheme is published as an aid to teachers and students, to indicate the requirements of the examination. It shows the basis on which Examiners were initially instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began. Any substantial changes to the mark scheme that arose from these discussions will be recorded in the published Report on the Examination.

All Examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes must be read in conjunction with the question papers and the Report on the Examination.

CIE will not enter into discussion or correspondence in connection with these mark schemes.

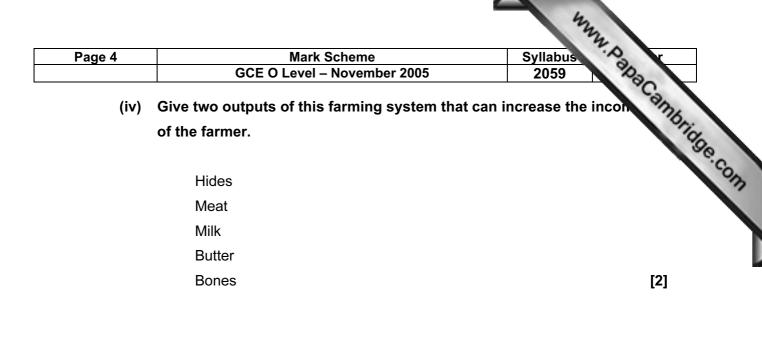
CIE is publishing the mark schemes for the November 2005 question papers for most IGCSE and GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses

Pa	ge 1		Mark Scheme Syllabus	2
			GCE O Level – November 2005 2059	Day -
ENV	IRON	IME	NT OF PAKISTAN	Phy 1
1 ((a) (i)	Name the city A,	Tid
			Gujranwala	[1]
	(ii)	State the latitude in degrees north of the line B,	DahaCambridg
			32	[1]
	(iii)	Name the river C	
	ſ	,	Hab	[1]
				ניז
	(iv)	State two main features of the climate in area D	
			Arid/very dry/desert	
			Mild winters	
			(Very) hot summers	
			Dust storms/hot, dusty winds May – September [1 + 1]	[2]
	(b) (i)	Which crop is expected to have a decrease in its water demand in	n 2025?
			Rice	[1]
	(ii)	By how many MAF (million acre feet) will the water demand for expected to increase between 1990 and 2025?	or wheat
			31/30 – 34	[1]
	<i></i> .			
((III) V	Why	is an increase in water demand expected for wheat?	
			More wheat being grown/larger area cultivated/growing demand	
			More desert areas being reclaimed	
			More HYVs/Maxipak wheat needs more irrigation	
			Increased yield per hectare	
			More double cropping	
			More spraying and liquid fertiliser	[0]
			More irrigation (in general)	[3]
	(iv) V	Why	is a much smaller increase in water demand expected for cotton?	•
			Less land suitable for cotton/too wet in North	
			Fertile soil needed – fertiliser expensive	
			Fluctuating export demands due to competition	
			Fluctuating prices	
			Fluctuating prices Land changing to wheat cultivation	

Page 2		Mark Scheme	Syllabus	
	GCE O	Level – November 2005	2059	20
(c) (i)	What are perennia inundation canals		Syllabus 2059 hey better for farming than	ambru
	What are they?	(res. 1)		
	Canals that su	upply water throughout th	he year from dams/barrages	
	Why better?	(res.1)		
	Water always	available when needed		
	Can be better	controlled		
	Reliable/do no	ot depend on the weathe	er	
	or credit the re	everse for inundation ca	nals	
		(res. 1) [for each of '	what' and 'why', float of 1]	[3]
(ii)	How may irrigation	n damage the soil?		
	Causes water	-logging and salinity		
	Groundwater	rises/swamps formed	(max. 2)	
	Salts added to	o soil by groundwater		
	Evaporation le	eaves salts on surface		
	Hard crust for	med		

Soil not properly flushed out/shortage of canal water [3]

Page 3 Mark Scheme GCE 0 Level - November 2005 Syllabus 2059 (iii) How may this damage be overcome? Mater-logged/wet soil (res.1) Concrete linings to canals Closure of canals when not needed/regulate flow Planting trees eg. Eucalyptus Tubewells used (instead of old methods) Tubewells used to lower water table Surface drains Lower canal water levels/dredge silt (res. 1) Salty/saline soil Water from tubewells used to flush out salts Education/knowledge of better farming methods Use of fallow periods [6] er (a) Study Photograph A. A valley in the Hindu Kush. [1] (ii) Name this type of animal Cow(s)/cattle [1] (ii) Suggest why these animals were taken here Food/pasture/grazing/ water/drinking [2] (iii) What type of farming is this? [2]		Mark Scheme Syllabus	
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Food/pasture/grazing/ water/drinking [2]	.,		
Food/pasture/grazing/ water/drinking [2]	.,	Name this type of animal	[1]
water/drinking [2]	(i)	Name this type of animal Cow(s)/cattle	[1]
water/drinking [2]	(i)	Name this type of animal Cow(s)/cattle	[1]
	(i)	Name this type of animal Cow(s)/cattle Suggest why these animals were taken here	[1]
(iii) What type of farming is this?	(i)	Name this type of animal Cow(s)/cattle Suggest why these animals were taken here Food/pasture/grazing/	
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	(i) (ii)	Name this type of animal Cow(s)/cattle Suggest why these animals were taken here Food/pasture/grazing/ water/drinking	



(b) Study the line sketch Fig.4 of Photograph A.

(i) Describe two differences between the vegetation in area X and Y.

X short - Y longer X few/no bushes/trees - Y more bushes X no bare ground - Y some stony areas [2]

(ii) What features in area Y suggest that it is not used for growing crops?

Mixture of vegetation/no single type of plant No fields/field boundaries Floodplain/slip off slope likely to be flooded Rocks/pebbles/evidence that it has been covered with floodwater Not level/uneven [2]

(iii) The slope in area X is terraced. Explain how this will help the farmer to grow wheat.

Make flat land for easy cultivation Holds soil/prevents soil erosion/makes a deeper soil Holds water/prevents drainage Keeps minerals/fertiliser in soil [3]

Page 5	Mark Scheme	Syllabus
	GCE O Level – November 2005	2059
		0.
(iv)	Study areas W and Z. What two features sugg never be cultivated? Too steep	gest that these areas will

(iv) Study areas W and Z. What two features suggest that these areas will never be cultivated?

Too steep Little soil/no soil Rocky/rugged No water/too much drainage/dry

[2]

The wheat is harvested about 6 months after it is sown. In which month (c) (i) is wheat most likely to be sown here?

April/May

Why is the climate in the months after it is sown good for the growth of (ii) wheat?

Mild temperatures 13-23 Warmer for ripening July 23, August 22 High/Moderate rainfall 16-26 mms per month (Light) rain before harvest/increase in July and August Dry period for harvesting (only credit if 'May' stated in (i)) [3]

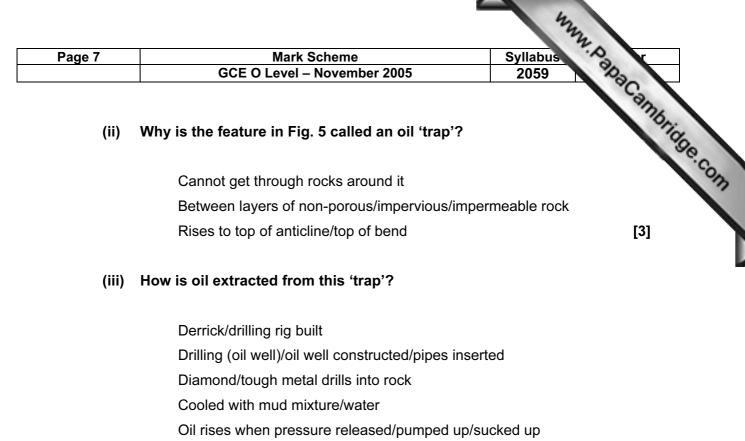
(d) Study the road shown in area S of Fig. 3.

(i) What is shown that is likely to block the road?

(loose) rocks/scree/boulders allow landslides

[1]

Page (6	Mark Scher		Syllabus	
		GCE O Level – Nove	ember 2005	2059	Dar
	(ii)	What problems are there for mountain areas? (In your ans 3 and 4.)		l maintenance ii Photograph A oi	
		Construction			
		Steep gradients			
		Rain/snow/ice (max. 2)			
		Deep valleys/crossing rive	ers/gorges		
		Remote from supplies			
		Lack of suitable workforce	e		
		High costs			
		Difficult to move machine	ry		
		Maintenance			
		Damage by bad weather	(max. 2)		
		Blockages restricting acc	ess		
		High cost, remote, labour	etc. (only credit once)		
		Earthquakes			
		Dangerous place (max. 1)		
	[Crea	dit figures from graph and/or refe	erences to photograph to	1 each]	[5]
3 On	your	answer paper state the letter f	or the following.		
(a)	(i)	The area of rock containing o	bil.		
		Υ			[1]
	(ii)	The area of rock containing n	natural gas.		
		х			[1]
	(i)	What is meant by the term 'pe	orous rock'?		
(b)	(.)				
(b)	(-)	Has pores/holes/spaces	(to hold liquids/gases)		



Valves to control flow into pipeline

Derrick removed/dismantled after oil is flowing [5]

(c) There are three sectors of employment in the oil industry. These are primary, secondary and tertiary. Study this table of jobs in the oil industry.

Computer operator Refinery worker Rig worker Safety officer Tanker driver

State one job that is in:

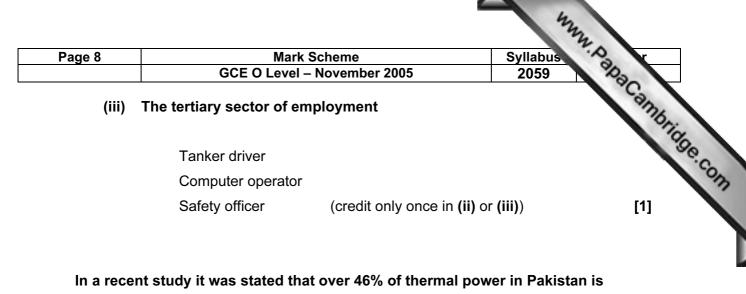
(i) The primary sector of employment,

Rig worker

[1]

(ii) The secondary sector of employment,

Refinery worker	
Safety officer	[1]



generated in the area around Karachi.

(d) (i) Why is so much thermal power generated in this area?

Gas/Oilfields in Lower Sindh Named oilfield (max. 1) Coal mines in Lower Sindh Named mining centre/Lakrha/Jhimper/Sonda Gas pipeline from Sui Imports of oil at Karachi Demand from industry Demand from large population Other demands e.g. railway (max. 2) Oil refineries at Karach

[3]

(ii) What problems are created when there are many thermal power stations in one area?

Air pollution and details (max. 2) Shortage of oil/gas/coal supply Depletion of oil/coal reserves in the area Lack of investment in renewable energy generation Hot water flows out into rivers

(Answers must refer to the close environment of Karachi only) [4]

Page 9		Mark Scheme	Syllabus
	GCE O	Level – November 2005	2059 2020
(e)	What is 'load shedd	ling', and how does it affect ind	ustry and busines
	Pakistan?		onig
	Definition	(res. 1) Planned power cuts	Syllabus 2059 ustry and busines
	Effects	Interrupts production	
		Damages machinery	
		Cannot meet deadlines	
		Loss of quality	
		Loss of orders	
		Loss of money/profit	
		Cost of generators	
		Lights/computers/freezers/air	
		conditioning/heating etc. sto	ps (max 2)
		Transport/traffic problems	[4]

4 Study the World Map, Fig. 6 (Insert 2)

(a) Choose two of the countries A – E. Using the lines on the map

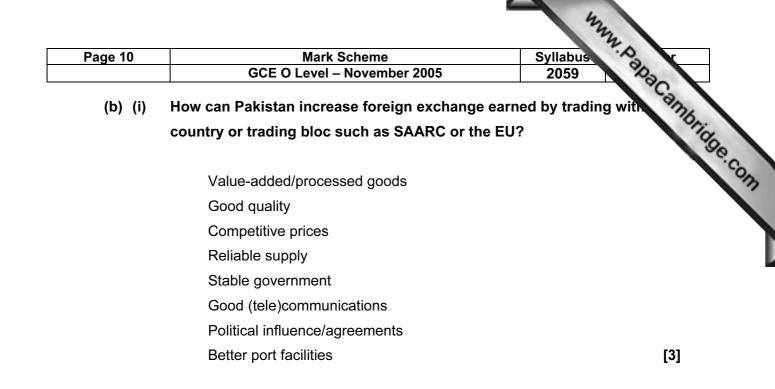
(i) Name the country

- [A] USA/America
- [B] UK (accept England or British Isles)
- [C] Germany (not EU)
- [D] Saudi Arabia
- [E] Japan

(ii) State a product that the country imports from Pakistan

- [A] Carpets, rugs surgical, sports goods
- [B] (Raw) cotton, goods to A
- [C] Cotton cloth, goods to A
- [D] Spices, rice, ready made garments/cotton/fish
- [E] Fish and fish products/cotton

(2 + 2) [4]

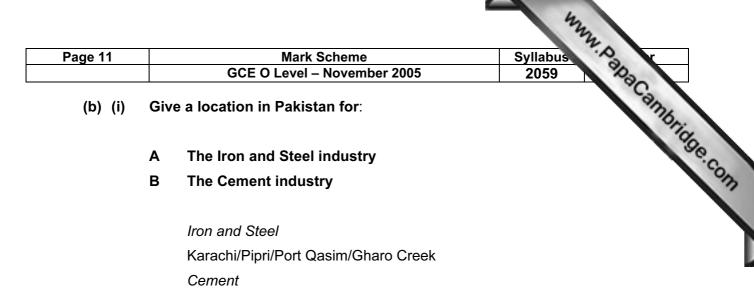


(ii) State another way other than trade, in which Pakistan can earn foreign exchange.

Remittances (from relatives abroad)	
Tourism	
Invisible earnings	[1]

(iii) Why does Pakistan need to increase foreign exchange?

Negative balance of payments/tradeReduce foreign debtInvestment in agricultureIndustrialisationNamed infrastructure improvementsBetter housing/ resettle squattersCost of foreign expertise[3]



Potwar Plateau

(Any named place from map in 'Sethi' p.116 or Atlas p.25) (1 + 1) [2]

(ii) Choose one of these industries and state 2 inputs and 2 outputs of that Industry.

Inputs	Iron and Steel
	Iron ore
	Scrap iron
	Coke
	Limestone
	Electricity
	Other raw material e.g. Manganese
	Power supply
	Land
	Labour
	Cement
	Limestone/chalk
	Clay/shale
	(Powdered) coal
	Calcium sulphate/gypsum
	Electricity/power supply
	Kiln
	Land
	Labour

Page 12		Mark Scheme	Syllabus	×
	GC	CE O Level – November 2005	2059 73	
	Outputs	Iron and steel	Syllabus 2059	any
		Raw steel	•	Tig
		Cast iron		Se.
		Rolled and cast billets		
		Galvanised products		
		Girders etc.		
		Cement		
		Cement powder		
		Cement blocks		
		Pre-cast cement		
		Bricks		
		Slabs/paving etc.	(2 + 2)	[4]
		1 0	(<i>, , ,</i>	

(d) How can telecommunications such as the telephone, e-mail and the internet help

(i) To buy and sell the goods stated in (c)(ii)?

Locating supplies Advertising goods/publicity Arranging transport Finding orders/tendering Faster method Arrange delivery Can communicate internationally

(ii) In the expansion and modernisation of industries?

Credit ideas of increased funds by sales and advertising Obtaining machinery and building materials (best prices) Arranging transport Expert advice Easy communication with branches in other areas/countries Contact with investors Share dealing Sites for education of workers

[Allow development marks] [4]

GCE O Level – November 2005 2059 5 Study Fig. 7, a map of population density in Pakistan. (a) Describe and explain the distribution of areas of population density more than	Page 13	Mark Scheme	Syllabus 77, D r
(a) Describe and explain the distribution of areas of population density more than		GCE O Level – November 2005	2059
(a) Describe and explain the distribution of areas of population density more than	5 Study Fiç	. 7, a map of population density in Pakistan.	Cambrid
200 per square kilometre.	• •	ribe and explain the distribution of areas of popu er square kilometre.	ulation density more than

5 Study Fig. 7, a map of population density in Pakistan.

Description

North East and Central Punjab Valleys of the 4 rivers east of the Indus Named city/district e.g. Faisalabad, Gujranwala, Lahore

Central NWFP/W-E band through the middle Vale of Peshawar Named city/district e.g. Charsadda, Mardan, Abbottabad, Islamabad, Rawalpindi

Central Sindh Along Indus Valley Named city/district e.g. Hyderabad, Nawabshah, Shikaphur, Naysharo Firoz

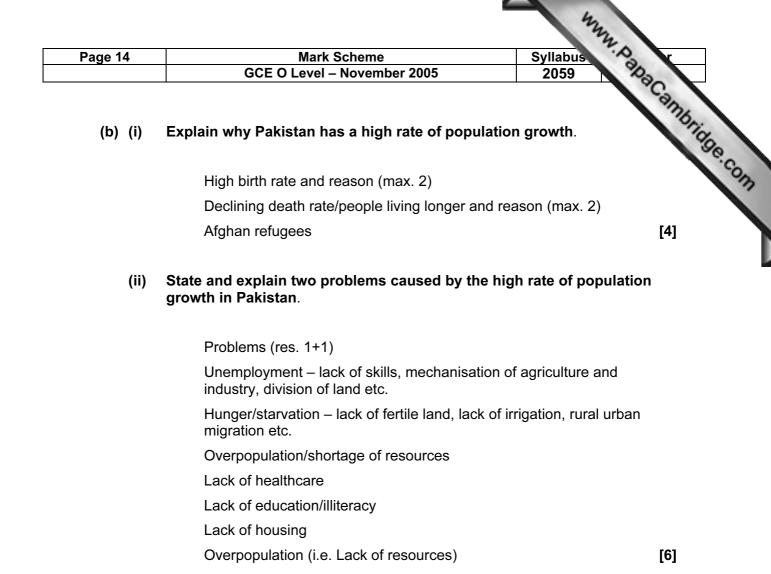
South west Sindh/Karachi area

(reserve 3 for description)

Explanation

Rural urban migration and reasons (max. 2) High birth rates (max. 2) Employment/farming in area (other than rural-urban migration)

> (reserve 3 for explanation) (3+3) [6]



(c) (i) On your answer paper name the area marked X on Fig. 7.

Makran coast/ Gwadar (district)

(ii) Why is there a low population density in area X up to the present day?

Arid climate/no rivers/lack of water Mountainous interior Lack of communications to more prosperous parts of the country/isolated/remote Poor soil for farming/lack of agriculture Lack of government investment Lack of jobs Lack of industry

[3]

Page 15	Mark Scheme	Syllabus	X
	GCE O Level – November 2005	2059	2
(iii)	On your answer paper name the port P. What place here that are likely to increase the popu future?		anne
	Gwadar (res. 1)		
	Deep water port scheme (inaugurated by P	res. Musharraf March 20	02)
	Phase 1 should be complete in 2004		
	International port		
	Government agreement with China to const	truct a deep water port	
	Openings for trade with Central Asia (incl. A	۹fghanistan), China,	
	Japan, Singapore		
	Warehouses built for storage		
	Ancillary industries related to port		
	Bigger fish harbour		
	Industries related/fish processing		
	Makran coastal highway to Karachi under c	onstruction	
	Highway west to central Asian Republics		
	Residential estates/housing schemes		
	Mirani Dam project		
	Hingol Dam project		
	International airport		
	QESCO power lines		
	Mini port at Pasni		
	(nam	e 1 developments 4)	[5]