

UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

GCE Ordinary Level

MARK SCHEME for the November 2004 question paper

2059 PAKISTAN STUDIES

2059/02

Paper 2 (The Environment of Pakistan), maximum mark 75

This mark schemes 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 do 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 2004 question papers for most IGCSE and GCE Advanced and Ordinary Level syllabuses.



November 2004

GCE O LEVEL

MARK SCHEME

MAXIMUM MARK: 75

SYLLABUS/COMPONENT: 2059/02

PAKISTAN STUDIES
The Environment of Pakistan

Page 1	Mark Scheme	Syllabus	Paper
	PAKISTAN STUDIES – NOVEMBER 2004	2059	2

1	(a)	(i) 36 (°N) (ii) Himalaya(s) (iii) Kabul (iv) Kharan (v) Quetta	5 @ 1	[5]
	(b)	(i) 666mm/660mm to 680mm	1 @ 1	[1]
		(ii) (monsoon) winds from Bay of Bengal/India/E pressure pattern (max 2) (tail end of) monsoon air rises and cools condensation/water droplets form moisture-laden	5 @ 1	[5]
		(iii) moderate/fairly heavy increasing 70-180mms/doubles/by 25mm per month max. in March min. in December.	3 @ 1	[3]
		(iv) depression rain/western depressions/disturbances originate in Mediterranean area enter Pakistan through Afghanistan (<i>not</i> Iran for Murree) long land journey depletes moisture reaching area	3 @ 1	[3]
		(v) convectional/thunderstorms	1 @ 1	
		formation high temperatures/strong heating moisture evaporated from rivers/lakes/vegetation/moisture-laden air (moist) air rises (strongly/rapidly)/convection occurs air cooled as it rises causes condensation of moisture/water vapour formation of thunderstorms (max 2) formation of hailstones (max 2)	3 @ 1	[4]
	(c)	(i) 20/15-25 mm	1 @ 1	[1]
		(ii) sheltered by surrounding mountains/rain shadow too far west for monsoons to reach/little monsoon rain western depressions mostly deflected from area/do not reach area/few depressions lacks sources of moisture for convectional rainfall to develop/desert area temp. inversion prevents convection NOT 'it is in a desert'	3 @ 1	[3]
			Total for Question 1	[25]

Page 2	Mark Scheme	Syllabus	Paper
	PAKISTAN STUDIES – NOVEMBER 2004	2059	2

- 2 (a) (i) **'Areas with forests'**
 northern mountains/northern NWFP/Northern Area/named area or mountain range
 (some on) Potwar Plateau/Salt Range
 western highlands/(western) NWFP/NW Pakistan/Afghan border
 northern Balochistan (Plateau)/central Brahui Range
 Indus delta/Hab delta/Sindh coast
 Below snow line/4500m
 Areas with wet climate/rainfall amount?
 NOT mountains/hills/highlands etc.
- (ii) **'irrigated forests'**
 most by rivers/by Indus
 6/7 in Punjab/most in Punjab/uip
 1 in Lower Sindh/near Hyderabad/lower LIP
 1 on border of Punjab and NWFP/confluence of Indus and Gomol
 named plantation (**max 1**) see p 49 Sethi 2nd ed.
Reserve 1 for each group. Float of 2 marks. 4 @ 1 [4]
- (b) (i) *steep valley sides exposed/soil erosion occurs
 landslides
 avalanches
 flooding
 eroded/broken up/destroyed/telephone wires grounded
*** Allow once only in (i), (ii) or (iii)** 3 @ 1 [3]
- (ii) *steep valley sides exposed/soil erosion occurs
 flooding
 irrigation canals/channels blocked
 less rainfall
 salts in irrigation water – salinity
 (coarse) sand and gravel deposited on fields
 crops destroyed
*** Allow once only in (i), (ii) or (iii)** 3 @ 1 [3]
- (iii) *steep valley sides exposed/soil erosion occurs
 decreases water/electricity supply/power supply
 silt in reservoirs
 rivers blocked
 less rain
 silt in intake pipes/turbines/power plant
 landslides may break power lines
*** Allow once only in (i), (ii) or (iii)** 3 @ 1 [3]
- (c) (i) **definition (res 1)**
 in a line
 planted by man
- where found**
 alongside canals/rivers
 alongside roads/railways
 along field boundaries
 etc. 4 @ 1 [4]

Page 3	Mark Scheme	Syllabus	Paper
	PAKISTAN STUDIES – NOVEMBER 2004	2059	2

- 2 (c) (ii) prevent soil erosion
lower the temperature ...
provide shade
fruit/food
firewood/timber
leaves/roofing
to reduce air pollution/make clean air
- 4 @ 1 [4]
- (d) **workshop (res 1)**
large shed
dark/poorly lit
(simple) machinery/named machines, band saw, electric motor (max 2)
lack of safety guards
(many) hand tools/named tools (max 2)
sawdust/shavings
window
planks of wood
etc.
- characteristics of type of industry (res 1)**
small scale/cottage industry
craft industry
traditional skills
labour intensive
simple machinery (do not double mark)
use local raw materials/timber
local specialisation
supply larger factories in towns
possible export
sales to tourists
encouraged by government/PSIC
less than 10 employees (small-scale)
family/no hired labour (cottage)
fixed assets less than Rs. 10 million
in homes/small workshops
- 4 @ 1 [4]
Total for Question 2 [25]
- 3 (a) (i) flat area
flooded
banks (of earth)/bunds
about 1 metre high
fields
(scattered) trees/bushes on banks
- 4 @ 1 [4]

Page 4	Mark Scheme	Syllabus	Paper
	PAKISTAN STUDIES – NOVEMBER 2004	2059	2

- 3 (a) (ii) farming using natural rainfall/flooding
 can only be carried out after flooding/must wait for floods
 farmers have no control of water supply/rain variable
 seasonal /continuous cropping rarely possible
 higher banks/bunds have to be built to hold as much water as possible
 when it comes
 (usually) can only grow coarser grains/millet (bajra)/sorghum
 (jowar)/pulses
 lower yields/output
 variable yields/outputs
 further floods could destroy seedlings/standing crop
 less advanced/traditional methods
 annual floods supply nutrients
 smaller farms
- Allow 'irrigation farming' approach. Comparisons need only be implied.** 5 @ 1 [5]
- (b) **characteristics**
 depends (entirely) on rainfall/rain-fed area
 (low) banks/bunds constructed
 field size varies considerably/small/large fields
 ploughing after/if rain falls
 farmers too poor to own tractors/lack of machines/traditional
 methods
 use of animal dung/no fertiliser
 some years rainfall is insufficient/crops fail
 low yields
 often sheep/goats reared as alternative source of food/income
 family labour
 etc. 4 @ 1
- crops (res 2)**
 wheat
 barley
 groundnuts
 millet/bajra
 pulses/gram/mash/masoor/moong
 sorghum/jowar
 oil seed/rape/mustard (not cotton)
 maize 2 @ 1 [6]
- (c) (i) requires warm temperatures for growth
 20°C to 30°C
 dry season for harvest
 monsoon rain for growth/flooding fields
 1270-2000mms
 winter/rabi season is too cold (even in south) 2 @ 1 [2]
- (ii) requires over 1275mm rainfall (in growing season)
 prefers over 2000mm rainfall
 nowhere in Pakistan has this amount of rainfall (in the growing season)
 not enough rain for flooding fields 2 @ 1 [2]

Page 5	Mark Scheme	Syllabus	Paper
	PAKISTAN STUDIES – NOVEMBER 2004	2059	2

- 3 (c) (iii) good irrigation
 details of canal network
 flat land assists in provision of irrigation/for use of machines
 have clay/loam/alluvial soils/soils rich in minerals/soils which retain
 fertilisers/rich in nutrients
 have water retentive soils
north-east Punjab receives more/heavier rainfall than any other plain
 areas in Pakistan ...
 large population/towns/cities
 large farms
 tubewells in Punjab
 impervious layer below soil
 high monsoon rain in Punjab
- 5 @ 1 [5]
- (iv) basmati
 Bangladesh
- 2 @ 1 [2]
Total for Question 3 [25]
- 4 (a) capital from foreign investment/banks/governments
 flat land/sites
 agricultural raw materials plentiful/available ...
 ... wheat/rice/oilseeds/sugarcane/hides (not cotton)
 7 power stations serve area
 main cities are on (national) electricity (grid)
 gas pipelines to area (from Sui/Potwar Plateau)/for power stations
 water available from rivers/canals
 Grand Trunk Road/etc }
 served by railway network/named rail route } area served by
 roads, rail, air -
 airports at (at least one name) } any two for 1 mark
 large labour force
 educated workers available/University of Lahore/etc.
 industrial estates have been built in area + details of incentives (max 2)
 export processing zone benefit from government incentives + details
 (max 2)
 dry ports encourage international trade + details (max 2)
 etc.
 must 'describe' and be related to the area
- 7 @ 1 [7]

Page 6	Mark Scheme	Syllabus	Paper
	PAKISTAN STUDIES – NOVEMBER 2004	2059	2

- 4 (b) (i) pioneered here to serve needs of British army in colonial times/traditional/for many generations
 (highly) skilled workforce has developed ...
 labour is cheap
 foreign investment
 raw materials imported through Lahore/Sialkot airport
 good electricity/gas/water/road/rail/etc. services (max 2)
 high value goods
 cottage industries/small scale industries supply larger factories/outworkers
 high value goods
 EPZ and dry port
 airport
 etc.

3 @ 1 [3]

- (ii) negative balance of trade
 lacks foreign exchange
 a large burden of debt
 capital/money to buy essential imports
 needs capital/money to develop infrastructure/services
 needs capital/money to develop its industries
 Sialkot's exports are highly competitive on the world market
 high value-added exports

does not necessarily need to be related to Sialkot

5 @ 1 [5]

- (iii) **EPZ**
 government incentives (max 2)
 infrastructure put in place (max 2)
 attracts foreign/private investment
 attracts foreign technological/management skills
 improved quality
 better marketing
 etc.

airport

closer than Lahore's
 cheaper transport for imported **light** raw materials
 more convenient for visiting businessmen
 more convenient for exporting **light** goods
 service industries develop to serve airport
 tourism
 etc.

**Reserve 2 marks for each of EPZ and airport. Float of 1 mark.
 General answer max. 2**

5 @ 1 [5]

Page 7	Mark Scheme	Syllabus	Paper
	PAKISTAN STUDIES – NOVEMBER 2004	2059	2

- 4 (c)**
- flat site
 - large area
 - cheap land
 - unobstructed approaches for aircraft
 - firm/solid ground
 - well drained land
 - climatic factors e.g.. snow, fog
 - few/nobody living in area to be developed
 - large pool of labour available ...
 - closeness to utilities/water/electricity
 - closeness to road/rail/transport links
 - (preferably) far away from houses
 - demand
 - availability of fuel
 - etc.

5 @ 1 [5]

Total for Question 4 [25]

- 5 (a)**
- (i)** first/largest/biggest
 - (ii)** last/fourth/lowest/least
 - (iii)** very low/low/sparse
- (b) (i)** (includes (by far) its largest city) Quetta
has 575 000/over 500 000 people/largest city
administration centre/government offices
military base
farming valleys/area ...
Pishin/Mastung valley ...
apples/apricots/grapes/almonds/tobacco
Quetta coalfield
woollen textiles (Harnai/Mastung)/cotton
vegetable ghee/cooking oil (Quetta)
road network
railway focus
(international) airport
on national electricity grid/gas pipeline
passes through highland
markets/warehouses/trade
dry port
entertainment + ex.
University/good schools
Cool summers
Medical/health facilities
Rural – urban migration + reason

3 @ 1 [3]

6 @ 1 [6]

Page 8	Mark Scheme	Syllabus	Paper
	PAKISTAN STUDIES – NOVEMBER 2004	2059	2

- 5 (b) (ii) mountainous
 Sulaiman/Toba Kakar/Chagai/Ras Koh/Siahhan/Central
 Makran/Makran Coast/Brahui/Kirthar Range (names max 2)
 very low rainfall/arid/desert/scarcity of water
 Kharan (Sandy)/Kachhi Desert
 lack of water for domestic/industrial purposes
 lack of water for irrigation
 very hot in summer
 (very) high evapo-transpiration
 very/cold winters
 large areas of bare rock/barren/lack vegetation
 large areas of sandy waste }
 large areas of reg } infertile soils = 1
 saline soils }
- hamuns (lakes) often dry/salt lakes/inland drainage/seasonal rivers
 Mashkel/Kap/etc Hamun/named river
 limited mineral resources/not exploited
 little developed by British
 lack of communications over vast areas
 lack of education/health/social facilities/services/electricity/etc. (max 1)
 lack of jobs
 very little industry

'many have moved out', 'because of tribal conflicts' = 0

7 @ 1 [7]

- (iii) 51-100 per square km
 near river Indus
 canal from Guddu barrage/Indus ...
 ... (part of) area irrigated
 ... flat/plain land
 ... alluvial soils
 ... rice/wheat/edible oils/pulses
 fishing
 Sui gas field
 road/rail communications network
 on national electricity grid/gas pipeline
 named town/city/state e.g. Jaffarabad, Nasirabad
 etc.

4 @ 1 [4]

- (iv) administrative centres
 education/health centres
 oases ...
 ... fed by karez
 ... fed by tubewells
 grow dates/vegetables/fruit etc.
 fishing e.g. Gwadar, Pasni, Ormara
 industries connected with fishing
 ports
 military posts
 border check-point
 example (max 2 for different functions)

5 @ 1 [5]

Total for Question 5 [25]