

# 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

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**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	
		<b>formation</b> 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]
			<b>Total for Question 1</b>	<b>[25]</b>

Page 2	Mark Scheme	Syllabus	Paper
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- 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 2<sup>nd</sup> 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]

<b>Page 3</b>	<b>Mark Scheme</b>	<b>Syllabus</b>	<b>Paper</b>
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- 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
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- 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
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- 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]

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- 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
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- 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
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- 5 (b) (ii) mountainous  
 Sulaiman/Toba Kakar/Chagai/Ras Koh/Siahan/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]**