

UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
GCE Ordinary Level

MARK SCHEME for the October/November 2007 question paper

2059 PAKISTAN STUDIES

2059/02

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

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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.

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1 Study the map Fig. 1 and Photograph A (Insert)

(a) (i) Name the deserts X and Y.

X Thar/Nara/Cholistan/Tharparkar

Y Thal

(ii) Describe the scene in Photograph A.

[4]

Dry/desert

Camels

Bare/sandy ground/ barren

Low bushes } or sparse vegetation

Small trees/larger bushes }

Flat

No clouds

(b) (i) Explain why desert X has a very low rainfall.

[3]

too far south for monsoon rain

too far east for depressions/westerly winds

little water to evaporate for convectional rain

low/flat land so no relief rain

not coastal so no cyclones/sea breezes

(ii) Describe simple methods that can be used to irrigate *small* areas of desert A.

[4]

A sentence on 2 or more of the following

wells, ponds, tanks, shaduf, jars

tubewell/tanker/sprinkler

(Can dev to 2 for named method)

(iii) Explain how some parts of desert B can be irrigated by *large-scale* schemes. You should refer to Fig. 1 and use your own knowledge.

[4]

Barrages (name + location)

e.g. at Jinnah or Chashma

at Rasul or Trimmu

link canals (+ example) – to transfer water

perennial canals – to provide water all year

distribution canals – to reach all fields

inundation and diversion canals

dams (name + location)

e.g. Tarbela

Mangla

(List max 2)

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- (c) (i) **Why do problems of waterlogging and salinity occur in some irrigated areas?**

Waterlogging

Water available all year

Crops given more water than they use

Watertable rises/reaches surface

Salinity

Evaporation of water

Salt in irrigation water

Salts brought to surface

Unlined canals leak

- (ii) **How can these problems be overcome?**

[5]

Lowering water table by tubewells

trees

Control of water by lining canals

closing canals temporarily

surface drains

Flushing out of salt by water from tubewells

surface drains

Education

to improve farming methods

Government schemes SCARP, WAPDA

[Total: 25]

- 2 (a) **Study Fig. 2 which shows the climate of Multan.**

- (i) **Explain why cotton is grown in this area of the Punjab. Refer to Fig. 2 in your answer.**

[5]

Reserve 2 marks for reference to Fig. 2

High summer temperatures/Summer temperatures over 30/May–September 32–31

Temperature rises to 35 in June

Not too cold/No temperatures below freezing/Lowest temperature 7 in Jan + Dec

Some rainfall in April–May for sowing/15-18mms

Rainfall increases in July–August for growth/to 60mm

Little rain/dry on October–November for ripening and harvesting/less than 10mms

Other factors

Alluvial/loam }

Moisture retentive }

Rich in humus } reference to soil max. 2

Lime }

Deep soil }

Flat land

Dry climate to reduce pest attacks

Good irrigation available

Good roads/infrastructure

Access to capital/investment etc.

(NOT consequences e.g. fertiliser factories, population etc.)

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- (b) (i) **Explain how climatic hazards may destroy or reduce the yield of cotton farms.**
 Cold temperatures/Frost + can kill plants
 Rain + damages cotton boll before picking
 Floods + can wash crops away/soil erosion
 Thunderstorms/Cyclones – damages to crops/soil erosion
 Drought + can reduce growth, kill young plants
 (1 mark for named hazard + 1 for explanation)
 (max 2 for list)

- (ii) **Explain two other factors that may reduce the production of cotton in Pakistan. [4]**
 Virus/Pests/disease + e.g. Leaf-curl virus or other named disease
 Lack of irrigation water + reduces yield
 'Waterlogging and salinity' or other soil damage + reduce yield
 Economic/drop in demand/other crops make more money
 Pollution + effect
 Loss of fertility – not replenished by floods/depleted by crop
 (1 mark for named factor + 1 for explanation)
 (max 2 for list)

- (c) **cloth** **raw cotton** **cotton yarn** **ready-made clothes**
- (i) **List the following in order of production. [3]**
 raw cotton cotton yarn cloth ready made clothes
- (ii) **From your answer to (c)(i) state one product of: [2]**
A a processing industry
 Yarn/thread or cloth
B a manufacturing industry.
 cloth or ready-made garment
- (iii) **Explain why Lahore is an important centre of the textile industry. You should use your answers to (c)(i) and (c)(ii) and your own knowledge. [7]**
 Cotton grown locally + ex
 Water for washing
 Machinery from HMC/Taxila
 Labour supply – large skilled and unskilled population
 Power – national electricity grid, gas pipelines, oil pipeline, power stations + ex
 Transport – good roads, railways transport north, south and west + ex
 Tele-communications, access to internet,
 Education – skilled workforce, IT skills, foreign experts
 Dry port – to promote exports
 EPZ – to improve quality, better infrastructure
 Industrial estates – for accommodation, infrastructure + ex
 Market – large population + ex
 Investors/entrepreneurs – for capital + ex
 Factories for all stages of production

(Needs more than a list)

[Total: 25]

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3 (a) Study Fig. 3 which shows limestone and rock salt extraction.

(i) Describe the distribution of limestone extraction in Pakistan.

Widespread
NWFP-Punjab border/Potwar Plateau
N(E) Baluchistan
S Sindh/near Karachi
Central Sindh

(ii) Rock Salt and Limestone are both 'bulky goods'. What is the cheapest form of transport for these goods? [1]

Railway

(iii) Why is the supply of limestone to most areas of Pakistan likely to be cheaper than that of rock salt? [1]

does not have to travel so far
quarried in many areas/more widely available

(b) Nearly one million tonnes of rock salt were extracted in Pakistan in 2002.

(i) What is a mixture of rock salt and water called? [1]

brine

(ii) What is rock salt used for in Pakistan? [2]

Cooking, preservation, soda ash, bicarbonate, caustic soda for tanning, textiles and laundries
Table salt

(Credit 2 uses, or one with development)

(c) Study Photograph B (Insert) showing a cement factory near Ghulamullah, in Thatta District.

(i) Describe the scene in the photograph. [4]

Flat
Dry/bare/barren/unpopulated
Rough road to factory
Vegetation in background
Chimney
Smoke/dust/air pollution
Low flat-roofed building
Stones/rocks
Tyre tracks

(ii) State three *natural* inputs that are needed to make cement. [3]

limestone
gypsum/calcium sulphate
natural gas/coal
clay/shale
water
sand

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- (iii) Explain the importance of *three human* inputs at a cement factory and the difficulty of providing them at this site. You should refer to Photograph B and use your own knowledge.

inputs

electricity for power
road/railway for transport
labour for good production
telecommunications for supply/sales etc.
machinery for fast/efficient production
capital for investment

difficulty

remote from settlement
lack of skilled/educated workforce
unreliable labour force
lack of named infrastructure
hot/dry climate
lack of local entrepreneurs

(input + difficulty 1+1)

- (d) Why is there a large demand for cement in Pakistan?

[4]

Domestic construction e.g. houses
Industrial construction e.g. Factories
Institutional buildings/schools/hospitals/offices etc.
Communication e.g. roads, bridges, railway sleepers
Port developments
Water management e.g. Dams, canals, embankments
Or could be linked to a new development e.g. Gwadar
(Any line max 2)

[Total: 25]

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4 (a) Read the extract below and study Photograph C (Insert).

Quetta is an important and busy trading centre. One of its main trades is in textiles and clothes. The centre of the city has seen many modern improvements to its buildings and communications.

- (i) State three features that can be seen in Photograph C and agree with what is said in the extract. [3]

People/more than 5
 Many shops/commercial buildings
 Textiles/clothes shops
 Overhead wires/power/telephone lines
 Modern/concrete buildings
 Tarred road
 Truck/4x4/car
 Scooter
 Telecom mast

- (ii) Why is Quetta an important trading centre? [3]

Focus of roads/well connected to rest of country
 Main road through pass/RCD highway
 Nomadic tribes
 Near Afghan border/Afghanistan
 Only large settlement in area
 Railway
 Airport
 Capital of Baluchistan
 Dry Port

- (b) (i) State two types of infrastructure shown in Photograph C. [2]

electricity (wires)
 road
 telephone (wires) (allow repetition of answer in (a)(i))

- (ii) Explain why these, and other types of infrastructure are important to a centre such as Quetta. [5]

Electricity for offices, factories, lighting, power, communication
 Roads for transport of people and goods
 Telephone for quick communication, better business
 Water for drinking, cleaning, hygiene, etc
 Gas for power, heating etc.
 Industrialisation needs good infrastructure
 Hotels for tourism, visitors
 Administration buildings

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- (c) (i) State *three* types of tertiary employment that may be taking place in street shown in Photograph C.

shop keeper
office worker
(vehicle) driver
cleaner
etc.

- (ii) Why are very few primary jobs available in urban areas? [2]

No arable land
No pasture
No mines or quarries
No forest
Creates pollution
High cost of land

- (d) Study Photograph D which shows a refugee camp near Quetta.

- (i) Describe the scene in Photograph D. [3]

dry/desert/arid
flat/sloping
hills in distance
stone/gravel/barren/uncultivated
tracks
tents/huts
few people
few animals
fodder/straw
wall
poles
(comparison with photograph C max 1)

- (ii) What problems does the arrival of large numbers of refugees create for infrastructure and services? [4]

Lack of, or provision of:
Food
Water
Sanitation
Medicine
Housing
Power
Damage to roads
Cheaper labour for services
Etc.

[Total: 25]

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- 5 (a) Study Fig. 4 which shows some population indicators in Pakistan in 1995 and 2059
- (i) Which indicator shows that population growth may be slowing down?
Birth rate
- (ii) Which indicator shows that there could be more children in the future? [1]
Lower infant mortality rate
- (iii) Why do the indicators show that there could be more people over 50 in the future? [2]
Lower death rate
Higher life expectancy
- (b) (i) With reference to your answers in (a)(i), (ii) and (iii) explain how the age structure of the population is changing. [4]
Fewer babies
More young people
More old people
Larger proportion not working/dependent
Smaller proportion working/independent
Ref. to pyramid shape max. 2
- (ii) What problems will this cause? [5]
more people to look after/dependent population
need for more schools
training
hospitals and clinics
houses
adaptations for old
more unemployment
more pensioners
more pressure on government/services
workers have to work harder/more stress
higher taxes

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(c) (i) **Explain the causes of rural-urban migration.**

Push factors (res. 1)

Loss of agricultural jobs

Lack of named facilities e.g. shops, entertainment

Lack of school/trained teachers

Lack of health facilities/trained staff

Loss of land

Natural disasters with example

Poverty because of

Pull factors (res. 1)

Better pay

More jobs

Better lifestyle/bright lights effect/entertainment (max 1)

Better education

Better health services

(factor + explanation = 1)

(do not double mark)

(ii) **What problems are caused in *rural* areas by migration to urban areas?**

[4]

Loss of workforce/only the old and young left

fewer children

loss of services e.g. education, medicine, public transport, shops

loss of infrastructure e.g. roads, electricity, telephone

loss of educated people/young people

women left behind/unbalanced sex ratio

lack of government investment/neglected/remain undeveloped

(credit any line to max 2)

(iii) **How can people be encouraged to stay in rural areas?**

[4]

Land reform and consolidation

Better infrastructure (named) e.g. Electricity, water, roads

Better services (named) e.g. Schools, hospitals, clinics

Development of Cottage/small-scale industries

Better communications e.g. Radio, TV

Government schemes

Irrigation schemes

(do not accept unless statement is explained)

e.g. Land reform because many farmers have small landholdings

Electricity supplies for raising living standards

More schools to increase literacy

Cottage industries for employment/income

Radios for education/entertainment

Tourism for employment

[Total: 25]