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UNIVERISTY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

0448 PAKISTAN STUDIES

0448/42 **Paper 42**

Due to a security breach we required all candidates in Pakistan who sat the paper for 0448/02 to attend a re-sit examination in June 2013. Candidates outside of Pakistan sat only the original paper and were not involved in a re-sit.

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International General Certificate of Secondary Education

MARK SCHEME for the May/June 2013 series

0448 PAKISTAN STUDIES

0448/42 Paper 4 (Environment of Pakistan), maximum raw mark 75

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

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Cambridge is publishing the mark schemes for the May/June 2013 series for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level components and some Ordinary Level components.

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1 (a) Study Fig. 1, which shows the climate of Quetta.

(i) Describe the annual distribution of rainfall at Quetta.

winter maximum
most from December to April
second max in July and August
none in September [3]

(ii) State <u>two</u> causes of rainfall at Quetta and name the months when each occurs.

western depressions	December to April
monsoon	July and August

[4]

(iii) What are the maximum and minimum temperatures at Quetta, and when do they occur?

maximum	28 °C July
minimum	4 °C January

[2]

(iv) Give <u>two</u> reasons why temperatures are higher in the summer than in the winter at Quetta.

Sun higher in the sky / higher angle of insolation
Longer hours of daylight
Less cloud [2]

(b) Explain how underdevelopment and disease can be made worse by water shortages.

<u>underdevelopment (res. 2)</u>
effect on agriculture, livestock, industrial production

<u>disease (res. 2)</u>
lack of cleanliness, sanitation and other hygiene, risk of water-borne disease, malnutrition [6]

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(c) (i) Name <u>two</u> types of infrastructure other than water supply.

roads, railway, electricity, gas pipes, telecommunications, buildings [2]

(ii) For <u>each</u> of the types of infrastructure named in (c)(i), consider the advantages and problems of improving it in Balochistan.

<u>Advantages</u>
Development of resources
Industrialisation
Employment
Trade
Higher living standards
Better education
Allow development

<u>Disadvantages</u>
Remoteness
Low density of population
Large area
Allow development [6]

[Total: 25]

2 Study Fig. 2, which shows a map on the coast of Pakistan.

(a) (i) Name on the map, <u>two</u> of the ports shown.

Any 2 correctly located from
Jiwani, Gwadar, Pasni, Ormara, Karachi (or Port Qasim) – from west to east [2]

(ii) Name <u>two</u> types of fish caught in the sea near Pakistan.

shark, croaker, skate, drum, cat fish, rays, sardine (must be marine fish) [2]

(b) Study Fig. 3, which shows the contribution to Gross National Product (GNP) of the fishing industry in Pakistan.

(i) What was the contribution to GNP of the fishing industry in 2010?

56 million rupees [1]

(ii) By how much has this figure increased since 2006?

38.5 million rupees [1]

(iii) What is meant by 'over-fishing'? Why does it occur?

over-fishing is when more fish are caught than replaced naturally
too many fish caught
small fish caught
too young to breed
caught in breeding season [3]

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(c) Study Fig. 4, which shows the main districts for fish farming in Pakistan.

(i) Describe the distribution of fish farming in Pakistan.

KPK (NWFP) by rivers from mountains / in foothills
Swat, Chitral, Dir, Malakand, Manshera, FATA
also Dera Ismael Khan, Kohat, Mardan, Swabi, Abbottabad
Punjab – in irrigated areas or where rainfall is sufficient
Sheikhpura, Gujranwala, Attock
Sindh – on the Indus foodplain
Thatta, Badin, Dadu [3]

(ii) Describe how fish are reared on a fish farm.

clean water
fed
health care
separated according to size etc.
removed when big enough to sell [4]

(d) Give an example of primary, secondary and tertiary employment in the fishing industry.

fisherman / worker on a fish farm
factory worker / canner / freezer
lorry driver / office worker [3]

(e) What are the benefits and problems of developing <u>either</u> marine fishing <u>or</u> inland fish farming in Pakistan?

Candidates must choose either marine fishing or fish farming

<u>Advantages</u>
more food
more work
higher incomes
more infrastructure
more exports (named)
reasons for sustainability

<u>Disadvantages</u>
Old methods / lack of investment
Poor infrastructure
Lack of education / skills
Overfishing
Reasons for unsustainability
Named pollution
Danger of marine fishing [6]

[Total: 25]

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3 (a) Study Fig. 5, which shows the climate of Multan.

(i) In which months is the temperature above 25°C?

April–October [1]

(ii) What is the maximum rainfall and when does it occur?

61 mm July [1]

(iii) Cotton is the major cash crop grown in Pakistan. Label on Fig. 5:
– the month of sowing
– the months of growth
– the month of harvest

A April and/or May
B all months between A and C
C October and/or November [3]

(iv) Explain why the months you have marked for <u>growth</u> have the best climatic conditions for cotton.

Temperature above 25 °C
Mild night temperatures / no frost
Less rain for harvest
1000 mm rainfall [4]

(b) Study Fig. 6, which shows the amount of cotton produced and the area used for this in Pakistan.

(i) What was the highest annual production, and in which year did it occur?

Production 14 million bales
Year 2006 [1]

(ii) Compare the change in cotton production with the change in area of land used between 2000 and 2010.

Production varies more
Area changes by 0.4 m.ha, production by 5.5 m bales
More detail
Other comparative figures / averages etc. [3]

(c) How can the government help farmers to grow more cotton?

education
training
advertising
cheap loans
machinery on lease
co-operatives
land consolidation [6]

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(d) To what extent can the development of cottage and small-scale industries improve family incomes in Pakistan?

IN FAVOUR
employment
for women
local demand
international demand
reduces migration
local raw materials
can use waste materials, e.g. rubber, rope
low set-up costs / investment

BUT
Poor quality
Child labour
Lack of infrastructure etc. [6]

[Total: 25]

4 (a) (i) State what is meant by 'renewable energy' and give an example.

does not run out,
e.g. wind, solar, HEP, wave etc. [2]

(ii) Name a fossil fuel, and explain why it is non-renewable.

coal, oil, natural gas
formed millions of years ago, taken out of ground [2]

(iii) Explain how fossil fuels cause
– air pollution
– land pollution

A air pollution
Create CO2, smoke, smell
B land pollution
Mining, quarrying, oil spills [2]

(b) Study Fig. 7, which shows gas and oil usage in Pakistan.

(i) State the percentages of gas and oil used for electricity production.

A gas 30
B oil 40 [2]

(ii) Which user takes 15% of gas?

fertiliser [1]

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(iii) Which user takes 50% of oil?

transport [1]

(iv) Explain why a larger percentage of gas <u>than</u> <u>oil</u> is used in the home.

cheaper
more in Pakistan
transported in pipes
reaches other areas in cylinders / compressed gas
less needed for other uses, e.g. transport [3]

(c) Study Fig. 8, which shows the usage of coal mined in Pakistan.

(i) Name the industry A which uses a large amount of coal produced in Pakistan.

brick making [1]

(ii) Why is only a small percentage of coal used for electricity generation?

low quality [1]

(d) Name <u>one</u> type of renewable energy. Explain where the most suitable areas in Pakistan would be for its development.

(NO credit for named type)
Solar – deserts, sunshine, lack of cloud
Wind – coast or mountains, stronger winds
HEP – mountains, deep valleys, more rainfall
Biomass – e.g. bagasse from sugar cane factory, other farm waste, e.g. straw
Wave – along coast
Tidal – along coast [4]

(e) Explain why it is important to supply electricity to rural areas. Consider to what extent it is possible.

Tubewells
Agricultural machinery / processing, e.g. milling
Small scale industries
Standard of living
Information technology
Education
Healthy living

Potential of renewable sources

BUT cost of technology, maintenance, need? [6]

[Total: 25]

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5 (a) Study Fig. 9 (insert), which shows the main towns and cities in the Punjab province.

(i) Name the cities A, B, C, and state the size of their population.

A – Lahore 4–6 million
B – Faisalabad 2–4 million
C – Multan 1–2 million [6]

(ii) Describe the distribution of towns and cities with a population of over 50 000.

Mostly in the east / central area
Where the tributaries are / Chenab, Sutlej, Ravi, Jehlum
Few in south / near Sindh
Few in north-west (except Islamabad/Rawalpindi) / near KPK [3]

(b) Study Fig. 9 again.

(i) Name an area with a population density below 50 persons per square kilometre.

Any area coloured light or mid-green,
e.g. Chitral, Tharparkar, Balochistan [1]

(ii) With reference to <u>physical factors only</u>, explain why the area that you have named in (b)(i) has a low population density.

Shortage of rain
rivers
Extreme temperatures
Mountains / plateaux, steep slopes
Lack of soil / stony / barren [4]

(c) In the last 50 years there has been a big increase in the proportion of people living in urban areas.

(i) Name two <u>push</u> factors that cause people to migrate from rural to urban areas.

Any two of the following:
poverty
unemployment
hunger
poor housing
poor services, e.g. education, health
poor infrastructure, e.g. roads, electricity
natural disasters, e.g. floods
disease
danger, e.g. tribal unrest, Taliban [1]

(ii) Explain <u>each</u> of the factors you named in (c)(i).

Explanation of above,
e.g. poverty because of lack of land, high rents, large families
unemployed because of mechanisation, lack of skills
natural disasters, e.g. ref. to floods in 2010, earthquake etc. [4]

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(iii) Explain <u>two</u> problems experienced by migrants from rural areas when they reach urban areas.

Housing – shortage, expensive, poor standard
Work – shortage, unskilled, lack of contacts
Food – shortage, unhealthy
Health – shortage of clinics/hospitals, poor living standards, overcrowding [6]

[Total: 25]

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