

**UNIVERSITY 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.



**UNIVERSITY of CAMBRIDGE**  
International Examinations

**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.

Cambridge will not enter into discussions about these mark schemes.

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.

Page 2	Mark Scheme	Syllabus	Paper
	IGCSE – May/June 2013	0448	42

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 two 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 two 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.

underdevelopment (res. 2)

effect on agriculture, livestock, industrial production

disease (res. 2)

lack of cleanliness, sanitation and other hygiene, risk of water-borne disease, malnutrition [6]

Page 3	Mark Scheme	Syllabus	Paper
	IGCSE – May/June 2013	0448	42

(c) (i) Name two types of infrastructure other than water supply.

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

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

Advantages

Development of resources  
 Industrialisation  
 Employment  
 Trade  
 Higher living standards  
 Better education  
 Allow development

Disadvantages

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, two of the ports shown.

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

(ii) Name two 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]

Page 4	Mark Scheme	Syllabus	Paper
	IGCSE – May/June 2013	0448	42

(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 either marine fishing or inland fish farming in Pakistan?

Candidates must choose either marine fishing or fish farming

Advantages

more food  
 more work  
 higher incomes  
 more infrastructure  
 more exports (named)  
 reasons for sustainability

Disadvantages

Old methods / lack of investment  
 Poor infrastructure  
 Lack of education / skills  
 Overfishing  
 Reasons for unsustainability  
 Named pollution  
 Danger of marine fishing

[6]

[Total: 25]

Page 5	Mark Scheme	Syllabus	Paper
	IGCSE – May/June 2013	0448	42

**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 growth 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]

Page 6	Mark Scheme	Syllabus	Paper
	IGCSE – May/June 2013	0448	42

(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 CO<sub>2</sub>, 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]

Page 7	Mark Scheme	Syllabus	Paper
	IGCSE – May/June 2013	0448	42

(iii) Which user takes 50% of oil?

transport [1]

(iv) Explain why a larger percentage of gas than oil 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 one 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]



Page 8	Mark Scheme	Syllabus	Paper
	IGCSE – May/June 2013	0448	42

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 physical factors only, 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 push 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 each 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]

<b>Page 9</b>	<b>Mark Scheme</b>	<b>Syllabus</b>	<b>Paper</b>
	<b>IGCSE – May/June 2013</b>	<b>0448</b>	<b>42</b>

(iii) Explain two 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]