



**Cambridge International Examinations**  
Cambridge Ordinary Level

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**PAKISTAN STUDIES**

**2059/02**

Paper 2 The Environment of Pakistan

**October/November 2016**

MARK SCHEME

Maximum Mark: 75

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**Published**

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1 (a) Study Fig. 1 which shows the distribution of monthly rainfall in Karachi.

(i) A For how many months does Karachi experience less than 10 mm rainfall?

B Estimate the total rainfall in Karachi for the period July to September. [2]

A 7 (may simply list the 7 months)

B 173 mm *Tolerance 171–175 mm*

(ii) Describe briefly the climatic region in which Karachi is located. [1]

Arid / coastal (maritime) / warm summer, mild winter

(iii) What is the main source of rainfall in Karachi? From which direction do the rain-bearing winds come? [2]

Source: [Secondary] monsoon

Direction: SW

(iv) Describe the effects of tropical cyclones on cities such as Karachi. [4]

Widespread / great / huge / much / many / a lot of – damage

[Flash] floods / blocked drains / sewers

Lives lost / injuries / people missing

Damage to / loss of homes / belongings / slums

Damage to named transport – e.g. roads, railways, ports, airports so people unable to get to work

Damage to named services – e.g. schools / hospitals / clinics

Damage to workplaces / industry - e.g. the fishing industry destroyed so no source of income or loss of income / disrupts exports

Loss to local economy – e.g. through damaged industry / cost of rebuilding / loss of jobs

Damage to transmission lines / power stations / lack of power

Damage to communication – e.g. lack of telecommunications / telephone lines / internet / social media

Shortage / contamination – drinking water / food causing disease to spread

(b) Study Photographs A and B (Insert) which show parts of the lower Indus valley. Using the photographs and your own knowledge, explain the advantages for agriculture in areas like this. [4]

Near to river / lake / water source (for ease of irrigation / plentiful water for sugar cane or cotton)

[Active / old] flood plain (allows floods to spread over a large area)

River floods regularly / every 1–8 years (e.g. depositing alluvium / providing water and nutrients / which is useful for rice / suitable for Buffalo to wallow idea)

Alluvium / fertile soil (to increase crop yields)

Wide area / floodplain / space / up to 40 km wide (which provides large area of land for intensive cropping)

Flat (e.g. for ease of cultivation / easy to grow crops / easy to use machinery / easy for cattle to graze) (2 + 2)

*Maximum of 2 + 2 (mark + development mark)*

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(c) Study Fig. 2 which is a map showing different forest types in Pakistan.

(i) **In the key**, name the types of forest shown on the map. [2]

(Top to bottom) Mangrove, Riverain / Bela, Irrigated, Coniferous / Alpine

(Mark as one or two correct 1 mark; three or four correct 2 marks)

(ii) For **one** of the forest types you have named in (i):

- Describe the features of the forest – 2 marks
- Explain the uses or purpose of the trees that grow there – 2 marks [4]

Description: 2 Marks	Uses / Purpose: 2 Marks	General points: max 1 Mark
<b>MANGROVE</b> <ul style="list-style-type: none"> <li>• Leaves – broad / drip tips / leathery / pointed</li> <li>• Low / 3–8m / do not grow tall / general height 3 m</li> <li>• Grow on mudflats</li> <li>• Survive in sea water / salt tolerant</li> <li>• Roots bend into water</li> <li>• Roots filter salt from water</li> </ul>	<ul style="list-style-type: none"> <li>• Firewood</li> <li>• Breeding ground for fish / shrimps</li> <li>• Leaves food / nutrition for fish</li> <li>• Fodder for camels / livestock</li> <li>• Protects from coastal erosion</li> <li>• Furniture</li> <li>• Thatching material</li> <li>• Barrier against floods, tsunamis, storms / intensity of earthquakes</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce surface run-off</li> <li>• Prevent floods</li> <li>• Prevent soil erosion</li> <li>• Protect against air pollution / purify air</li> <li>• Protect soil (conserve soil)</li> <li>• Humus to increase soil fertility</li> <li>• Increase rainfall</li> <li>• Timber</li> <li>• Habitats / breeding and conserving areas for birds and wildlife</li> </ul>
<b>RIVERAIN / BELA</b> <ul style="list-style-type: none"> <li>• Shishum /</li> <li>• babul / willow / dhak</li> <li>• Commercial hardwoods</li> </ul>	<ul style="list-style-type: none"> <li>• For furniture / agricultural instruments / construction</li> <li>• Firewood</li> </ul>	
<b>IRRIGATED</b> <ul style="list-style-type: none"> <li>• Blocks of same species shishum / babul / eucalyptus / jhand</li> <li>• Dense / compact</li> </ul>	<ul style="list-style-type: none"> <li>• Firewood</li> <li>• Shade</li> <li>• For construction / fencing</li> </ul>	
<b>CONIFEROUS / ALPINE</b> <ul style="list-style-type: none"> <li>• 30 m</li> <li>• Spruce / fir / deodar / kail / chir</li> <li>• Evergreen</li> <li>• Conical shape / downward</li> </ul>	<ul style="list-style-type: none"> <li>• For furniture / boxes / crates</li> <li>• For paper and pulp</li> <li>• Protection from landslides</li> <li>• Tourism</li> </ul>	

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<ul style="list-style-type: none"> <li>• sloping branches</li> <li>• Leaves small / narrow / needle-shaped / leathery</li> <li>• Roots wide-spreading / shallow</li> <li>• Survive in low temps</li> </ul>	<ul style="list-style-type: none"> <li>• For scenic beauty</li> <li>• For construction</li> <li>• Firewood</li> </ul>	
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(d) Read the following two views about the possibilities for tourism in Sindh province:

**A**

Hotels and tourist resorts need to be developed along the Sindh coast to bring foreign exchange and boost the economy.

**B**

The coastal area of Sindh cannot support large numbers of tourists. There could be negative effects from tourism.

Which view do you agree with more? Give reasons to support your answer and refer to places or examples you have studied. [6]

L3	5–6 marks	<p>6 – <i>Developed points explaining both views. Evaluation gives clear support to one view. At least one reference to an appropriate place or example</i></p> <p>5 – <i>Developed points explaining both views. Evaluation gives clear support to one view</i></p>
L2	3–4 marks	<p>4 – <i>Developed point(s) explaining both views. No evaluation</i></p> <p>3 – <i>Developed point(s) explaining one view</i></p>
L1	1–2 marks	<p>2 – <i>Simple point(s) addressing both views</i></p> <p>1 – <i>Simple point(s) addressing one view</i></p> <p>0 – <i>No valid response</i></p>

Indicative content (development of points or examples in parentheses)

For tourism

Sindh has many tourist attractions  
 Beaches (Clifton Beach / Sand spit / Hawkes Bay / Paradise Point)  
 Historical buildings (Quaid-i-Azam Mausoleum / National Museum / Mohatta Palace)  
 Tourism industry undeveloped / has scope for development / investment  
 Creates employment (such as drivers / guides / hotel staff)

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Against tourism

Sensitive environment (threats to mangrove forests / fishing grounds)

Tourists bring culturally unacceptable behaviour / dress code

Tourists can pollute the environment with noise / litter / oil from jet skis, etc. (which disturbs local residents / looks unsightly / is a danger to wildlife)

Indus delta / most of Sindh coast unsuitable for development (swamps / marshes / creeks / forests)

Karachi needs tourist industry infrastructure (e.g. no passenger ferry terminal)

Declining / lack of tourist numbers

Employment only seasonal

Loss of livelihood due to construction of resorts (e.g. fishermen)

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- 2 (a) Study Fig. 3 which is a map showing the locations where three different non-metallic minerals are extracted in Pakistan.
- (i) For any two locations, state the name of the mineral extracted and a use for this mineral. Write your answers in the spaces provided on Fig. 3. [4]

You should choose from the following list: gypsum limestone rocksalt

Location

NW – rocksalt / limestone / gypsum

Central – limestone / gypsum

S – limestone

Mark any two correct

Uses

Rocksalt: cooking / preservation / soda (used in laundries / textiles / tanning) flavouring food

Gypsum: paints / fertilisers / boards / cement / to treat saline soil / plaster of paris

Limestone: for building / cement / bleach / glass / soap / paints / to treat saline soil / bleaching powder / paper

- (ii) Using Fig. 3 and your own knowledge, suggest difficulties there may be in getting minerals to export markets. [3]

Heavy / bulky commodities

Expensive to transport

Roads and railways from mining areas poorly developed / or not connected

Mostly extracted far inland / away from ports / Karachi / distance from markets / takes a long time / remoteness

Mountainous / rugged terrain

Theft

Inappropriate / inadequate vehicles to transport minerals

**(b) Study Photograph C (Insert).**

- (i) Name the type of livestock shown in this photograph. [1]

Goat (*only*)

- (ii) Why is this type of livestock valuable to the farmer? [3]

Goatskin / leather products

Meat / food

Dairy products e.g. milk, yoghurt, cheese,

Can survive in rugged areas / sparse grazing / costs little or nothing to feed / do not need much looking after / move goats around easily

Dung as manure / fuel

Source of income

Wool

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(iii) What environmental problems can be caused by keeping this type of livestock? [2]

Overgrazing / too many livestock animals in too small an area / livestock not moved to different pastures / land becomes more marginal  
 Soil erosion / desertification / land becoming barren  
 Damage to young trees / deforestation

(c) (i) Name two of Pakistan's main exports. [2]

Linen / textiles / clothing / men's suits / bed linen  
 Raw cotton / cotton yarn / cotton products  
 Carpets / tents /rugs  
 Rice  
 Refined petroleum / oil  
 Cement  
 Leather / leather products / named leather product e.g. shoes  
 Sports goods  
 Surgical instruments  
 Chemicals

(ii) Read the following article:

Pakistan produces many goods that could be exported in greater quantities. For a variety of reasons the amount of exports remains low: in 2013 the value of exports was only 13% of GDP.

Explain why it is difficult for Pakistan to sell more of its goods to other countries.

[4]

Challenging to compete with foreign / larger companies / producers (accept an example, e.g. Egypt – textiles)  
 Quality of items (lack of access to / high cost of raw materials / machinery)  
 Child labour causes barriers to trade (e.g. EU)  
 Limited management expertise in the export industry  
 Other countries have trade barriers / tariffs / quotas / restrictions (to protect their own industries / markets)  
 Relations with some other countries restricts trade  
 Pakistan government may have trade barriers with other countries (e.g. China – on cheap imported goods)

*Maximum of 2 + 2 (mark + development mark)*

(d) Chemical fertilisers to help increase agricultural production are one of Pakistan's main imports. These imports are expensive. Read the following two views:

A

Pakistan should manufacture more of its own chemical fertilisers to reduce the need for importing them.

B

Pakistan should rely less on chemical fertilisers and reduce the need for importing them by using natural alternatives.

Which view do you agree with more? Give reasons to support your answer and explain why it is important to reduce imports of chemical fertilisers.

[6]

L3	5–6 marks	6 – <i>Developed points addressing both views and the importance of reducing imports of chemical fertilisers. Evaluation gives clear support to one view</i>  5 – <i>Developed points addressing both views and the importance of reducing imports of chemical fertilisers. No evaluation</i>
L2	3–4 marks	4 – <i>Two developed point(s) addressing any view</i>  3 – <i>Developed point addressing any view</i>
L1	1–2 marks	2 – <i>Two simple point(s) addressing any view</i>  1 – <i>Simple point addressing one view</i>  0 – <i>No valid response</i>

Indicative content (development of points in parentheses)

Chemical fertilisers

Modern factories (e.g. Enven-Engro in Daharki, Sindh) are energy efficient / environmentally compliant

Cow dung is in insufficient amounts / used as a fuel in rural areas

Pakistan has large supplies of natural gas (the main raw material for fertiliser) (at Sui)

Natural alternatives

Fertiliser factories use large amounts of fuel (especially natural gas)

Ample source of manure from large livestock sector

Ample source of compost from agricultural waste

Alternative methods of improving soil quality are possible (crop rotation / nitrogen-fixing plants / beans / legumes / avoiding overcropping / multi-cropping)

Importance

The cost of imports (trade / balance of payments deficit / imports>exports) (fertilisers one of top 5 imports / 2% imports)

Chemical fertilisers cause water pollution (agricultural runoff containing chemicals goes into streams / rivers / causes eutrophication)



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3 (a) Study Fig. 4 which is a diagram of a coal mine.

- (i) Choose two terms from the list below and use them to label the diagram in any two of the spaces provided.

adit cage shaft open-cast seam tunnel [2]

Any two of (left to right): cage, tunnel, shaft, seam, shaft, (type of mine)

- (ii) Suggest two reasons for using this type of mine and one disadvantage of using it. [3]

Reasons – 2 marks

To access seams deep below surface  
 To access seams of different depths  
 Can exploit further along the seams  
 Where seam does not appear at / near surface / hillside

Disadvantage – 1 mark

More expensive  
 Greater risk of accident / flooding / gas build-up – credit all reasonable ways that accidents can happen  
 Dependent on [power for] lift to the surface

- (iii) What type of coal is imported by Pakistan and how is it used? [2]

Type: Anthracite / bituminous – 1 mark

Use: Steel industry / heavy engineering / smelting – 1 mark

- (b) Explain what the fuel CNG is and state the main reasons for using this fuel. [4]

Definition – Reserve 1 mark

Compressed natural gas  
 Gas compressed to 1% volume it has at normal pressure  
 Methane under high pressure

Reasons – Reserve 1 mark

Used (instead of petrol / diesel) in transport / vehicles  
 Especially buses / rickshaws  
 (Compared to petrol / diesel) cheaper, cleaner / reduces air pollution, safer  
 Can be stored / transported in cylinders

- (c) Study Fig. 5 which is a graph giving information about different non-renewable fuels used for electricity production in Pakistan over the period 2006–11.

- (i) What is meant by the term ‘non-renewable fuel’? [2]

An energy source that depletes / runs out / is not being replaced / has fixed reserves / is finite – 1 mark

With any one example e.g. fossil fuels, wood, coal, oil – 1 mark

- (ii) Which fuel use has increased by the largest amount between 2006 and 2011? [1]

Oil

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- (iii) Use information from the graph to describe one main difference between the change in gas used for electricity production and the change in oil used for electricity production. [2]

Gas overall decrease: oil overall (throughout / 2006–2011 / over the years) increase  
 Gas from 36 to 27–28 TWh / by 8–9 TWh: oil from 27–28 to 33–34 TWh / by 6–7 TWh

Reserve 1 mark for use of data with unit (TWh)

- (iv) Explain why so little coal is used for electricity production in Pakistan. [3]

Coal mined in Pakistan is unsuitable  
 Lignite, sub-bituminous to peat  
 Contains impurities / sulfur  
 Low heat producing, low carbon content, large amount of ash, does not give out much energy  
 Coal reserves not exploited due to shortage of funds / technical skills  
 Not imported (because expensive)  
 Difficult / expensive to transport around country because bulky  
 International agreements / pressure to use less coal since is a dirty fuel / causes high emissions of smoke / CO<sub>2</sub>

- (d) Read the following article:

**Energy crisis**

Industrial growth in Pakistan relies on the availability of energy. Pakistan does not produce enough energy for its needs and therefore spends a lot of its earnings on expensive imports of fuels.

- Describe briefly different measures that can be taken to solve the country's energy crisis. To what extent can these measures be successful? [6]

L3	5–6 marks	6 – <i>Developed points addressing measures taken and the extent of their success with evaluation</i>  5 – <i>Developed points addressing measures taken and the extent of their success</i>
L2	3–4 marks	4 – <i>Two developed point(s) addressing any measure</i>  3 – <i>Developed point addressing any measure</i>
L1	1–2 marks	2 – <i>Two simple point(s) addressing any measure</i>  1 – <i>Simple point addressing any measure</i>  0 – <i>No valid response</i>

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Indicative content (development of points in parentheses)

Measures

Moving away from non-renewable / large-scale schemes to renewable / small-scale schemes  
 E.g. wind, solar, biogas (details / examples)  
 Investment in large-scale power stations  
 E.g. nuclear, wind, solar, HEP, gas, coal gas (details / examples)  
 Energy saving in workplaces / homes  
 Public / media awareness about not wasting energy resources

Evaluation (depends on measures)

Successful

Small-scale schemes can be maintained locally / in rural areas  
 Given sufficient government / private / foreign investment  
 Wind – large empty areas of uplands / Makran coast  
 Solar – lack of cloud (250–300 sunny days per year)  
 Biogas – large agricultural sector producing manure / plant waste

Unsuccessful

Opposition to new technology / power stations  
 High cost (leading to domestic / foreign debt)  
 Changes of government priorities (large projects may be delayed / cancelled)  
 Limited skills / expertise (in using advanced technology)  
 Other issues considered higher priority than saving energy (e.g. escaping poverty / increasing levels of education / health)  
 Hydro in north – far from the major centres of population, transport costs  
 Green energy is less reliable

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4 (a) (i) Describe two human inputs used in the cultivation of cotton. [4]

Labour (people) – picking / ploughing / sowing, etc. / mainly women / paid at low rate  
Machinery / appropriate example of machinery (e.g. tractors) – picking / quick process  
Pesticides / insecticides – prevent disease and damage to the crop  
Fertilisers – larger size of cotton boll / for high yields  
Irrigation – 1 month and 3 months after sowing / when rainfall is lacking  
HYVs – Nanyab / 78 / B-557 / 149-F / resistance to leaf-curl virus / humidity tolerant / less sensitive to temperature  
Capital / investment / finance – purchase machinery, seeds, fertiliser, pay labour  
Government loans / subsidies – purchase of machinery, seeds, fertiliser  
Knowledge – shape of the land, soil type, aspect, weather patterns  
Traditions – farming methods handed down over generations

*Maximum of 2 + 2 (mark for a named input + mark for detail)*

(ii) Study Fig. 6 which is a graph showing the production of raw cotton in Pakistan over the period 1982–2014.

A Describe the main changes in the production of raw cotton between 1982 and 2014. [3]

Overall increase  
Overall fluctuation  
Significant rises: 82/83 to 91/92 / 94 to 04  
Significant falls: 91/92 to 94/95 / 04 to 07/10

*Maximum of 1 mark for use of data*

B Suggest three reasons for the production levels seen in the years 1991, 2004 or 2011. [3]

Ample / plenty of / no shortage of rainfall / irrigation  
No / little rain at harvest, no flooding  
No / little frost / mild night temperatures  
No / few insect attacks / diseases  
Greater use of fertilisers, HYVs  
Greater use of insecticides and pesticides  
Government incentives / policies e.g. need to produce more food, increased availability of loans

(b) Describe different ways in which governments can support farmers. [4]

Providing / maintaining large irrigation schemes / dams / canals  
Providing solutions for waterlogging and salinity, (such as SCARP, tubewell linings, etc.)  
Developing HYV seeds (on government farms / collaboration with MNCs)  
Plant protection programme / aerial spraying / advising on pesticides and treatment methods  
Offering loans (for machinery / tubewells / fertilisers / pesticides / seeds / labour costs)  
Veterinary care  
Livestock research (on government farms)  
Redress after flood / natural disaster  
Land reform  
Educating / training farmers (on use of HYVs / modern farming methods / sustainable methods / organic farming)

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Further development / increased production of fertiliser industries  
 Providing weather forecasts

(c) Study Fig. 7 which is a table giving information about agriculture in Pakistan over the period 1950–2010.

(i) Describe the relationship between agricultural labour force and cropped area. [2]

As labour force decreases, area increases / negative correlation / inverse relationship - 1 mark

Use any four statistics to illustrate above statement, e.g. 'Labour was 66% whereas area was 13 ha then later when labour was 45% the area was 23 ha' - 1 mark

(ii) Suggest reasons for the change over the period 1950–2010 for either labour force or cropped area, as shown in Fig. 7. [3]

Labour force

Mechanisation of farms

Rural to urban migration

Alternative work / occupations / factory work / informal sector work in urban areas

Higher paid work in urban area

Education and learning more / wider skills

Cropped area mark

force and cropped area.

–2011.rs.gs on expensive imports of fuels.

Reclamation of desert

More areas irrigated

Deforestation

Soil improved by fertilisers

Greater demand for food crops / commercial crops

(d) Read the following two views:

A

Pakistan should plant more cash crops on its land to generate export earnings.

B

More land should be used to grow crops to feed the growing population of Pakistan.

Which view do you agree with more? Give reasons to support your answer and refer to examples you have studied. [6]

L3	5–6 marks	6 – <i>Developed points explaining both views. Evaluation gives clear support to one view. At least one reference to an appropriate example</i>
		5 – <i>Developed points explaining both views. Evaluation gives clear support to one view</i>

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L2	3–4 marks	4 – <b><i>Developed point(s) explaining both views. No evaluation</i></b> 3 – <b><i>Developed point(s) explaining one view</i></b>
L1	1–2 marks	2 – <b><i>Simple point(s) addressing both views</i></b> 1 – <b><i>Simple point(s) addressing one view</i></b> 0 – <b><i>No valid response</i></b>

Indicative content (development of points in parentheses)

Cash crops

For

Income (balance of payments / trade deficit / debt / imports greater than exports)

Can bring high profits

Benefits from government incentives (e.g. support prices / development of new seeds)

Access to loans for modern / expensive inputs (e.g. fertilisers / pesticides / machinery / HYVs)

Examples: wheat, rice, cotton, sugar cane, tobacco, oilseeds

Economies of scale on large holdings / single crops

Against

Many farmers cannot afford cost of modern agricultural methods in cash crop farming

Cash crops are monocultures (vulnerable to disease / uses chemical inputs such as fertilisers / pesticides which can pollute water)

Food crops

For

Population growing rapidly (1.6% per annum)

Increasing demand for food

Fertile land becoming scarce (due to waterlogging and salinity / desertification / soil erosion / over cultivation)

Saves expensive imports of food / reduces import bill

Can be grown on subsistence farms / at low cost (using traditional methods / implements / family labour / small holdings)

Examples: rice, millet / bajra, sorghum / jowar, maize, fruit, vegetables

Against

Farmers growing only food crops / subsistence farmers do not make enough income / profit to invest in improving their farms for more output

Development may progress at a slow rate if subsistence farming increases – people will be occupied in providing food and not working in other sectors

Not all families may have access to fertile land

May not have the skills to grow own food

If adverse weather conditions affect many farms – could result in famine – if Pakistan imports food the population can still be fed

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5 (a) (i) Study Fig. 8 which is a bar graph giving information about infrastructure spending in Pakistan for 2014–15.

**A What is meant by the term ‘infrastructure’?** [2]

Definition: the basic facilities / services / installations / utilities e.g. electricity, water needed for the functioning / operation of a community / society / enterprise / country / area - 1 mark

Example: Roads / rail / ports / airports / electricity / gas / power supplies / sewerage / water / telecommunication / phone lines / internet provision – 1 mark

**B Using information from Fig. 8 only, describe problems for infrastructure spending in 2014–15.** [3]

Projects cost much more than funds / money available

Total projects Rs7700 ±100 bn, funds available Rs700 ±100 bn – lack of funds overall

Source of funds available – government Rs400 ±100 bn, private Rs150 ±50 bn, foreign assistance Rs 150± 50 bn – government has to rely heavily on private / foreign assistance

Large amount / number of ongoing / new projects

Not all projects can be funded successfully – ongoing projects Rs 4200 ± 100 bn / new projects e.g. new Wapda Rs1500 ± 100 bn, new K-L motorway Rs800 ± 100 bn, new other Rs1200 ±100 bn, new total RS3500 ± 100 bn

Wapda more expensive than money available / Wapda Rs1500 ± 100 bn, funds available Rs 700 ± 100 bn

Money available would only pay for Karachi-Lahore motorway / funds available Rs 700 ± 100 bn, K-L motorway Rs 700 ± 100 bn

*Maximum of 1 mark for use of data with Rs bn units. Tolerance ± 100 Rs bn*

(ii) Spending on infrastructure projects is lower in some years than others. Suggest reasons why this might be. [3]

Size of debt / trade / balance of payments deficit

Limited financial resources / lack of funds available / limited amount of money collected through taxes

Narrow export base leads to instability in export earnings

Investment is sometimes difficult

Spending cuts to balance budget

No agreements with foreign capital / banks

Change of government / policies

Other national priorities / more pressing priorities than development projects

Funds for natural disaster relief

No large projects in those years / projects may have been completed / maintenance of existing projects prioritised

Less financial aid

(b) Read the following article:

People move to towns and cities from the countryside for many reasons and often in large numbers. Some people return but most stay. As well as changing the lives of the migrants in many different ways, this rural–urban migration also brings change to the urban areas. The effects can be positive or negative.

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- (i) State two pull factors for the movement of population described in the article. [2]

Higher paid jobs / better working conditions / more opportunity / variety of work  
Better / higher education / colleges  
More reliable sources of food  
Expectation of better quality of life  
Greater access to healthcare / hospitals / more hospitals / doctors  
Better healthcare / improved medicines / vaccinations  
Constant supply / availability of water / electricity / gas / telephone  
More entertainment  
Better / more housing  
Better road / rail / bus links  
Better law and order

- (ii) Describe the effects on urban areas of the movement of large numbers of people into them. [4]

Greater workforce  
Increased competition for jobs / more unemployment  
Greater variety of skills  
Larger local market  
Overcrowding / shortage of housing / shanty development  
Overpopulation / densely populated  
Shortage of food / lack of food  
Strain / pressure on named services e.g. need more schools  
Strain on named utilities e.g. water, power  
Crime increases / increase in violence  
Growth in informal sector  
Urban sprawl / unplanned urban growth  
Traffic congestion / jams  
Increase in social and psychological problems  
Air / water / land / noise pollution / dumping untreated waste / damage to aquatic life  
Increased incidence of named health hazard – dysentery, cholera / disease spreads more quickly

- (c) (i) Name a fishing port on the Sindh coast. [1]

Karachi / Korangi

- (ii) Describe activities that are involved in the secondary sector of the fishing industry. [4]

Gutting / washing / cleaning (initial preparation of fish for other processes / ensure hygiene)  
Freezing (preserve (freshness) / for export)  
Canning (preserve / for export)  
Converting to fishmeal (for domestic poultry feed)  
Salting (so that the fish is preserved)  
Curing (dehydrates the fish so it can last longer / preserve)  
Smoking (preserves the fish and gives it a unique taste)  
Storage (of fish in refrigerators allows maximum storage time) / refrigerating (keeps the fish in its original state for eating)  
Packaging (preparing for transport / preparation for sale / protects the fish from contamination / prevents spoilage)



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Boat making / making nets / repairing boats / repairing nets (preparing for the process of catching fish)

*Maximum of 2 + 2 (mark + development mark)*

- (d) **To what extent is it possible to develop the fish processing industry further in Pakistan? Give reasons to support your answer and refer to places or examples you have studied.** [6]

L3	5–6 marks	6 – <b><i>Developed points explaining both views (possible and not possible). Evaluation gives clear support to one view. At least one reference to an appropriate place or example</i></b>  5 – <b><i>Developed points explaining both views. Evaluation gives clear support to one view</i></b>
L2	3–4 marks	4 – <b><i>Developed point(s) explaining both views. No evaluation</i></b>  3 – <b><i>Developed point(s) explaining one view</i></b>
L1	1–2 marks	2 – <b><i>Simple point(s) addressing both views</i></b>  1 – <b><i>Simple point(s) addressing one view</i></b>  0 – <b><i>No valid response</i></b>

Indicative content (development of points or examples in parentheses)

Possible

Long undeveloped coastline (1050 km / Makran Coast 750 km)

Gwadar being developed as a new port / fish harbour with modern facilities / EPZ (providing base for linkage to central Asian states)

Potential at Pasni / Jiwani / Sur Bandar / Ormara (allowing more fish to be refrigerated / preserved for transport to Karachi)

Government support (provides essential facilities for a fishing port to allow sustainability)

Compliance with EU / international quality standards (to remove import bans / embargoes)

Increase local ice factories / refrigerated storage / packing / canning facilities (to reduce need to transport to Karachi)

Training / education (could provide employment of local educated youth)

Value added products made for export (make more foreign exchange)

Not possible

Limited private sector and/or government investment / expensive to expand / contributes little to exports / focus on other industries (meaning technology and skills are not upgraded)

Many processing plants under capacity / out of operation (showing that the future development is uncertain)

Few skilled workers

Coastline remote / poor transport links (e.g. no railway / small airports / delayed new road links)

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Canning factories have been unhygienic and a cause for import bans (to EU / Saudi Arabia)  
Unreliable export market (about 30% worldwide)  
Low profits (6% of foreign exchange)  
Foreign competition  
Urban centres prefer fresh fish (so processed fish only to a few large department stores)  
Per capita consumption is low (1.6 kg p.a.)