



## Cambridge O Level

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**PAKISTAN STUDIES**

**2059/02**

Paper 2 Environment of Pakistan

**May/June 2021**

MARK SCHEME

Maximum Mark: 75

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**Published**

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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This document consists of **20** printed pages.

**Generic Marking Principles**

These general marking principles must be applied by all examiners when marking candidate answers. They should be applied alongside the specific content of the mark scheme or generic level descriptors for a question. Each question paper and mark scheme will also comply with these marking principles.

**GENERIC MARKING PRINCIPLE 1:**

Marks must be awarded in line with:

- the specific content of the mark scheme or the generic level descriptors for the question
- the specific skills defined in the mark scheme or in the generic level descriptors for the question
- the standard of response required by a candidate as exemplified by the standardisation scripts.

**GENERIC MARKING PRINCIPLE 2:**

Marks awarded are always **whole marks** (not half marks, or other fractions).

**GENERIC MARKING PRINCIPLE 3:**

Marks must be awarded **positively**:

- marks are awarded for correct/valid answers, as defined in the mark scheme. However, credit is given for valid answers which go beyond the scope of the syllabus and mark scheme, referring to your Team Leader as appropriate
- marks are awarded when candidates clearly demonstrate what they know and can do
- marks are not deducted for errors
- marks are not deducted for omissions
- answers should only be judged on the quality of spelling, punctuation and grammar when these features are specifically assessed by the question as indicated by the mark scheme. The meaning, however, should be unambiguous.

**GENERIC MARKING PRINCIPLE 4:**

Rules must be applied consistently, e.g. in situations where candidates have not followed instructions or in the application of generic level descriptors.

**GENERIC MARKING PRINCIPLE 5:**

Marks should be awarded using the full range of marks defined in the mark scheme for the question (however; the use of the full mark range may be limited according to the quality of the candidate responses seen).

**GENERIC MARKING PRINCIPLE 6:**

Marks awarded are based solely on the requirements as defined in the mark scheme. Marks should not be awarded with grade thresholds or grade descriptors in mind.

Question	Answer	Marks
1(a)(i)	<p><b>Study Fig. 1.1, a map showing the four main areas of gypsum and limestone extraction in southern Pakistan.</b></p> <p><b><u>Complete</u> the shading of the oval shapes in Fig.1.1 to show the main areas where gypsum and limestone are extracted. Use the information in the key. One area of limestone has already been shaded for you.</b></p> <ul style="list-style-type: none"> <li>• gypsum one area correctly identified (horizontal oval) and shaded = 1 mark;</li> <li>• limestone two areas correctly identified (both vertical ovals) and shaded = 1 mark.</li> </ul> <p style="text-align: right;">2 @ 1 mark</p>	<b>2</b>
1(a)(ii)	<p><b>State <u>two</u> uses of each mineral in Pakistan.</b></p> <p><b>gypsum uses:</b></p> <ul style="list-style-type: none"> <li>• cement;</li> <li>• fertilisers;</li> <li>• Plaster of Paris;</li> <li>• paint;</li> <li>• pre-fabricated construction boards;</li> <li>• spread on saline soil/help reclaim land for farming/chemical industry.</li> </ul> <p><b>limestone uses:</b></p> <ul style="list-style-type: none"> <li>• bleaching;</li> <li>• buildings;</li> <li>• cement;</li> <li>• glass;</li> <li>• iron;</li> <li>• lime;</li> <li>• paint;</li> <li>• painted on barks of trees/reduce pest attacks;</li> <li>• paper;</li> <li>• powder;</li> <li>• produce alcohol/fuel;</li> <li>• soap;</li> <li>• to treat sugar cane waste.</li> </ul> <p><b>Note:</b> Different examples required for each mineral.  <b>Note:</b> Gypsum uses = max. 2 marks, limestone uses = max. 2 marks.</p> <p style="text-align: right;">4 @ 1 mark</p>	<b>4</b>
1(b)(i)	<p><b>Study Fig 1.2, a bar graph showing the amount of GDP Pakistan earned from mining between 2011 and 2018.</b></p> <p><b><u>Complete</u> Fig. 1.2. to show that Pakistan earned 345 000 PKR Million from mining in 2018.</b></p> <p>Accurate completion of the bar graph for 2018.</p> <p style="text-align: right;">1 @ 1 mark</p>	<b>1</b>

Question	Answer	Marks
1(b)(ii)	<p><b>Identify the amount of GDP earned from mining in 2011.</b></p> <p>270 000</p> <p style="text-align: right;">1 @ 1 mark</p>	<b>1</b>
1(b)(iii)	<p><b>Describe the changes in GDP earned from mining between 2011 and 2018. You should include data in your answer.</b></p> <ul style="list-style-type: none"> <li>• overall increase;</li> <li>• 2011 lowest (at 270 000 PKR million);</li> <li>• 2018 highest (at 345 000 PKR million);</li> <li>• amount of increase 75 000 PKR Million (tolerance to be agreed);</li> <li>• largest increase between 2015 and 2016 (of 21 000 PKR million).</li> </ul> <p><b>Note:</b> One mark reserved for use of data.</p> <p style="text-align: right;">3 @ 1 mark</p>	<b>3</b>
1(c)(i)	<p><b><u>Complete</u> the passage below about limestone extraction in Pakistan. Choose the correct words from the list and place them in the spaces provided.</b></p> <p>When limestone <u>outcrops</u> at the surface it is extracted by quarrying. Quarrying is an open <u>excavation</u> from which stone is extracted for <u>building</u> and engineering purposes. Quarrying is carried out by using different <u>methods</u> and <u>equipment</u> such as hand tools, <u>explosives</u> or power saws, depending on the final use of the stone.</p> <p>5 or 6 correct = 3 marks 3 or 4 correct = 2 marks 1 or 2 correct = 1 mark</p> <p>0 marks if the same word entered more than twice/throughout and this is the only correct answer.</p> <p><b>Note:</b> Methods/equipment are interchangeable.</p> <p style="text-align: right;">3 @ 1 mark</p>	<b>3</b>

Question	Answer	Marks
1(c)(ii)	<p><b>Explain <u>two</u> human factors influencing the location of a cement factory. You should develop your answer.</b></p> <ul style="list-style-type: none"> <li>• availability of natural gas/gas pipeline; used as a cheap fuel/to keep costs down;</li> <li>• close to markets/demand from within Pakistan; high demand from construction industry;</li> <li>• demand for export markets; to improve balance of payments;</li> <li>• large workforce nearby; to fulfil both skilled and non-skilled jobs;</li> <li>• transport/accessible to motorways/main roads/railways; for ease of transporting in raw materials/exporting finished products to where needed;</li> <li>• loans/investment to set up the factory;</li> <li>• near to raw materials/limestone;</li> </ul> <p>Etc.</p> <p><b>Note:</b> One mark for identification of appropriate idea and a further mark for development. <b>Note:</b> Max. 2 marks if no development.</p> <p style="text-align: right;">2 @ 2 marks</p>	<b>4</b>
1(c)(ii)	<p><b>Define ‘sustainable’.</b></p> <p>Able to be maintained/will last a long time/will not cause damage/future generations not compromised.</p> <p style="text-align: right;">1 @ 1 mark</p>	<b>1</b>

Question	Answer	Marks
1(d)	<p><b>Evaluate the extent to which the extraction of Pakistan’s mineral resources could be made more sustainable.</b></p> <p><b>Give reasons to support your <u>judgement</u> and refer to examples you have studied. You should consider <u>different</u> points of view in your answer.</b></p> <p><b>Levels marking</b></p> <p>No valid response <span style="float: right;"><b>0</b></span></p> <p><b>Level 1</b> <span style="float: right;"><b>1–2</b></span>  Simple point referring to one view (1)  Simple points referring to any view (2)</p> <p><b>Level 2</b> <span style="float: right;"><b>3–4</b></span>  Developed point referring to one view (3)  Developed points referring to both views (4)</p> <p><b>Level 3</b> <span style="float: right;"><b>5–6</b></span>  Developed points referring to both views with evaluation or relevant example (5)  Developed points referring to both views with evaluation and relevant example (6)</p> <p><b>Content Guide</b></p> <p>Answers are likely to refer to:</p> <ul style="list-style-type: none"> <li>• for mineral extraction to be sustainable it means that the current population must be able to meet their own needs without compromising the needs of future generations/not harm the environment or that the environment can be returned to its former state once extraction has ceased/the economy benefits etc.</li> <li>• for mineral extraction to be sustainable all parts of the process need to be considered e.g. exploration/extraction/transportation of raw materials/disposing of waste etc.</li> </ul> <p><b>mineral extraction could be made more sustainable because:</b></p> <ul style="list-style-type: none"> <li>• there are large deposits of a variety of minerals in Pakistan so they can select which ones to use;</li> <li>• can enforce strict environmental guidelines and laws or examples;</li> <li>• increased use and availability of technology makes reserves more viable;</li> <li>• can return the environment to its former state after extraction;</li> <li>• use of renewable energy sources to exploit mineral deposits;</li> </ul>	<b>6</b>

Question	Answer	Marks
1(d)	<p><b>Continued mineral extraction cannot be made more sustainable because:</b></p> <ul style="list-style-type: none"> <li>• availability and use of technology is limited in some areas and traditional methods are still used;</li> <li>• profit is put before the environment;</li> <li>• habitats and loss of wildlife cannot be restored fully;</li> <li>• harmful to people e.g. vibrations from explosives/danger whilst working;</li> <li>• cost of extraction is high/viability may be low;</li> <li>• waste is harmful to the environment and may not be disposed of carefully;</li> <li>• environmental laws/regulations may not be enforced;</li> <li>• re-using and re-cycling may not be fully utilised;</li> <li>• causes visual, noise, land, water and air pollution;</li> </ul> <p>Etc.</p>	

Question	Answer	Marks
2(a)(i)	<p><b>Study Fig. 2.1, showing a blank divided bar graph. <u>Complete</u> Fig. 2.1 to show the percentage share of each source of surface water in Pakistan. Use the information in the key.</b></p> <ul style="list-style-type: none"> <li>• each correct division showing percentage share of each source of surface water = 1 mark – max 2 marks;</li> <li>• each correct labelling or shading of each source of surface water = 1 mark – max 3 marks.</li> </ul> <p><b>Note:</b> Any order accepted.</p> <p style="text-align: right;">5 @ 1 mark</p>	<b>5</b>
2(a)(ii)	<p><b>State <u>three</u> ways water is obtained for domestic purposes in Pakistan.</b></p> <ul style="list-style-type: none"> <li>• directly from rivers/glaciers/lakes/pond;</li> <li>• from wells/groundwater/from aquifers;</li> <li>• via pipelines/water tankers/from reservoirs/taps;</li> <li>• collecting rainwater (in tanks on the roof);</li> <li>• using desalination.</li> </ul> <p style="text-align: right;">3 @ 1 mark</p>	<b>3</b>

Question	Answer	Marks
2(b)(i)	<p><b>Explain how water is used in <u>two</u> different secondary industries in Pakistan. You should develop your answer.</b></p> <ul style="list-style-type: none"> <li>• thermal power stations; to produce steam to move the turbines;</li> <li>• mineral water industry; for bottling water this is the only input;</li> <li>• iron and steel industry; to cool the furnace;</li> <li>• HEP stations; pressure of water from a height or steep slope to move the turbines;</li> <li>• pharmaceutical industry; in the manufacture of drips, syrups, injections etc;</li> <li>• tanning industry; for washing/dyeing etc;</li> <li>• food processing/beverages; for preparing juices/squashes/syrups/beverages etc;</li> <li>• chemical industry; for manufacturing acids/bleach/other solutions etc;</li> <li>• textile industry; for washing/bleaching/ blueing/dyeing/printing etc;</li> <li>• cement industry;</li> </ul> <p>Etc.</p> <p><b>Note:</b> One mark for identification of appropriate idea and a further mark for development. <b>Note:</b> Max. 2 marks if no development.</p> <p style="text-align: right;">2 @ 2 marks</p>	<b>4</b>
2(b)(ii)	<p><b>Define ‘irrigation’.</b></p> <p>It is the artificial supply of water to the land.</p> <p style="text-align: right;">1 @ 1 mark</p>	<b>1</b>
2(b)(iii)	<p><b>Name and describe <u>one</u> type of conventional irrigation system used in Pakistan.</b></p> <ul style="list-style-type: none"> <li>• shaduf; water is drawn from a well, river or canal by a bucket.</li> <li>• charsa; animal power is used to pull water from the well.</li> <li>• Persian wheel; powered by a bullock which turns a wheel with a series of pots attached to raise the water from well and tip it into the channels that lead to the field.</li> <li>• karez; horizontal underground canal in the foothills and brings the underground water to the surface where it can be used.</li> <li>• inundation canals; long canals taken off rivers. They fill when the river is high enough and when it is in flood.</li> <li>• diversion canal; a narrow version of an inundation canal and are often used in steep areas so that they can take water to small terraced fields.</li> <li>• tank irrigation; mud banks are constructed across small streams to make a small reservoir to collect water in the rainy season.</li> </ul> <p><b>Note:</b> One mark for named technique and one mark for description.</p> <p style="text-align: right;">2 @ 1 mark</p>	<b>2</b>

Question	Answer	Marks
2(c)	<p><b>Outline <u>two</u> advantages and <u>two</u> disadvantages of using irrigation on small-scale subsistence farms.</b></p> <p><b>Advantages:</b></p> <ul style="list-style-type: none"> <li>• can produce higher yields;</li> <li>• extends farming seasons/can cultivate all year round;</li> <li>• more land used for cultivation/can cultivate marginal land;</li> <li>• can control the amount of water used;</li> <li>• can grow a wider range of crops;</li> <li>• can use over a wide area;</li> <li>• saves time;</li> <li>• more reliable than rainfall;</li> <li>• can be cheap to install e.g. Persian wheel;</li> </ul> <p>Etc.</p> <p><b>Disadvantages:</b></p> <ul style="list-style-type: none"> <li>• cost of installation/maintenance;</li> <li>• difficult to build;</li> <li>• inundation canals only flow during rainy periods or when glacial/snow melt enters the rivers;</li> <li>• waterlogging of soil;</li> <li>• can increase salinity of soil;</li> <li>• can cause siltation of barrages;</li> <li>• unlined canals lead to seepage;</li> </ul> <p>Etc.</p> <p><b>Note:</b> advantages = max 2 marks, disadvantages = max 2 marks</p> <p style="text-align: right;">4 @ 1 mark</p>	<b>4</b>

Question	Answer	Marks
2(d)	<p><b>The United Nations has predicted that Pakistan may become a ‘water scarce’ country by 2025.</b></p> <p><b>To what extent can effective management of its water supply help Pakistan to avoid becoming a ‘water scarce’ country in the future?</b></p> <p><b>Give reasons to support your <u>judgement</u> and refer to examples you have studied. You should consider <u>different</u> points of view in your answer.</b></p> <p><b>Levels marking</b></p> <p>No valid response <span style="float: right;"><b>0</b></span></p> <p><b>Level 1</b> <span style="float: right;"><b>1–2</b></span>  Simple point referring to one view (1)  Simple points referring to any view (2)</p> <p><b>Level 2</b> <span style="float: right;"><b>3–4</b></span>  Developed point referring to one view (3)  Developed points referring to both views (4)</p> <p><b>Level 3</b> <span style="float: right;"><b>5–6</b></span>  Developed points referring to both views with evaluation or relevant example (5)  Developed points referring to both views with evaluation and relevant example (6)</p> <p><b>Content Guide</b></p> <p>Answers are likely to refer to:</p> <p><b>Effective management of the water supply may help because:</b></p> <ul style="list-style-type: none"> <li>• Pakistan has enough water but it is not evenly spread throughout the country;</li> <li>• much water is lost through existing irrigation systems using traditional methods;</li> <li>• water is polluted through industrial and domestic waste/limited environmental regulation;</li> <li>• Pakistan needs to educate the people further about conserving water/reusing grey water;</li> </ul> <p>Etc.</p> <p><b>Effective management of the water supply may not help because:</b></p> <ul style="list-style-type: none"> <li>• population growth is leading to water scarcity and this should be tackled first;</li> <li>• Pakistan is suffering the consequences of climate change and this is an international issue that requires multi-national agreements;</li> <li>• the Indus Water Treaty causes many issues and needs to be updated;</li> </ul> <p>Etc.</p>	<b>6</b>

Question	Answer	Marks
3(a)(i)	<p><b>Study Fig. 3.1, a map showing wheat-growing areas in southern Pakistan.</b></p> <p><b>Using Fig. 3.1 <u>only</u> describe the distribution of the main wheat growing area.</b></p> <ul style="list-style-type: none"> <li>• not evenly spread throughout Pakistan;</li> <li>• most on the eastern side of Pakistan/on or near to the border with India;</li> <li>• lots in the east/less in west;</li> <li>• reference to latitude/longitude;</li> </ul> <p>Etc.</p> <p style="text-align: right;">3 @ 1 mark</p>	<b>3</b>
3(a)(ii)	<p><b>State <u>two</u> uses of wheat in Pakistan.</b></p> <ul style="list-style-type: none"> <li>• as a staple food;</li> <li>• flour;</li> <li>• manufacture of bread/roti/chapati;</li> <li>• in a variety of other baked products;</li> <li>• (low grade used as) feed for livestock;</li> </ul> <p>Etc.</p> <p style="text-align: right;">2 @ 1 mark</p>	<b>2</b>
3(b)(i)	<p><b>Study Fig. 3.2, a climate graph showing rainfall and temperature for Multan. <u>Complete</u> Fig. 3.2 using the information below.</b></p> <ul style="list-style-type: none"> <li>• accurate location of the point 36 °C = 1 mark;</li> <li>• line joined up accurately = 1 mark.</li> </ul> <p style="text-align: right;">2 @ 1 mark</p>	<b>2</b>
3(b)(ii)	<p><b><u>Complete</u> the passage below about the conditions required for growing wheat. Choose the correct words from the list and place them in the spaces provided.</b></p> <p>Wheat is sown during the <u>dry</u> season from October to December when <u>rainfall</u> is low and the average temperature is <u>15 °C</u>. Wheat needs at least <u>90</u> days to grow with a mild temperature of 10-20°C. A warmer temperature of <u>25–30 °C</u> is needed for ripening to take place. <u>Light</u> rain is also needed just before the harvest to swell the grain and ensure a high yield.</p> <p>5 or 6 correct = 3 marks 3 or 4 correct = 2 marks 1 or 2 correct = 1 mark</p> <p>0 marks if the same word entered more than twice/throughout and this is the only correct answer.</p> <p style="text-align: right;">3 @ 1 mark</p>	<b>3</b>

Question	Answer	Marks
3(b)(iii)	<p><b>Describe the methods used to cultivate wheat on a small-scale subsistence farm.</b></p> <ul style="list-style-type: none"> <li>• land is ploughed with a traditional wooden plough and bullocks/draught power;</li> <li>• well irrigation is used e.g. charsa/Persian wheel or rainwater is used.</li> <li>• sowing/harvesting/examples done by hand/work done by hand/family/no machinery used;</li> <li>• grain is separated from the chaff using animal power;</li> <li>• cow dung used as manure;</li> <li>• desi seeds are used;</li> </ul> <p>Etc.</p> <p style="text-align: right;">4 @ 1 mark</p>	<b>4</b>
3(c)(i)	<p><b>What type of crop is wheat? Circle <u>one</u> of the following: kharif/rabi/zaid</b></p> <p>rabi</p> <p style="text-align: right;">1 @ 1 mark</p>	<b>1</b>
3(c)(ii)	<p><b>Explain how <u>two</u> human factors can increase the production of wheat under the cash crop farming system. You should develop your answer.</b></p> <ul style="list-style-type: none"> <li>• loans/more money invested; from the government to buy machinery or named examples;</li> <li>• machinery is required; as areas of land are too large to cultivate by hand;</li> <li>• HYV's can be used; the yield per hectare is approximately twice that of local or desi varieties;</li> <li>• chemical fertilisers are used; to speed the growth so that two crops can be cultivated per year;</li> <li>• pesticides are used; to prevent crops being ruined by pests/locusts or named examples;</li> <li>• irrigation installed; e.g. replacing traditional methods with new modern methods such as sprinkler systems or tubewells;</li> <li>• land reforms; fields are larger so can use machinery;</li> </ul> <p>Etc.</p> <p><b>Note:</b> One mark for identification of appropriate idea and a further mark for development. <b>Note:</b> Max. 2 marks if no development.</p> <p style="text-align: right;">2 @ 2 marks</p>	<b>4</b>

Question	Answer	Marks
3(d)	<p><b>Wheat contributes around 2 per cent to Pakistan’s GDP with 80 per cent of farmers growing wheat on approximately 40 per cent of Pakistan’s total cultivated land.</b></p> <p><b>Assess the extent to which the large amount of land currently used to grow wheat should be used to grow other high value crops. Give reasons to support your <u>judgement</u> and refer to examples you have studied. You should consider <u>different</u> points of view in your answer.</b></p> <p><b>Levels marking</b></p> <p>No valid response <span style="float: right;"><b>0</b></span></p> <p><b>Level 1</b> <span style="float: right;"><b>1–2</b></span>  Simple point referring to one view (1)  Simple points referring to any view (2)</p> <p><b>Level 2</b> <span style="float: right;"><b>3–4</b></span>  Developed point referring to one view (3)  Developed points referring to both views (4)</p> <p><b>Level 3</b> <span style="float: right;"><b>5–6</b></span>  Developed points referring to both views with evaluation or relevant example (5)  Developed points referring to both views with evaluation and relevant example (6)</p> <p><b>Content Guide</b>  Answers are likely to refer to:</p> <p><b>Agree because:</b></p> <ul style="list-style-type: none"> <li>• wheat does not contribute very much to the economy but almost half of the cultivated land area is used for wheat;</li> <li>• still need to import wheat as unable to meet current demand;</li> <li>• environmental factors affect the production of wheat so in some years production is low;</li> <li>• high value crops will earn more money for the economy/increase GDP;</li> <li>• would have to import less high value crops;</li> </ul> <p>Etc.</p> <p><b>Disagree because:</b></p> <ul style="list-style-type: none"> <li>• land reforms have not always been effective in some parts of Pakistan;</li> <li>• much of the land is used by small scale subsistence farmers which limits what the land can be used for;</li> <li>• high value crops such as cotton require more water which Pakistan is short of;</li> <li>• costly to grow more high value crops;</li> <li>• additional education and training needed to grow more high value crops;</li> <li>• some farmers reluctant to grow different crops/traditional methods v modern methods;</li> <li>• may contribute to food shortages/wheat is a staple;</li> <li>• high value crops may not be food e.g. could be palm oil etc;</li> <li>• growing more high value crops may benefit big organisations over individual farmers;</li> </ul> <p>Etc.</p>	<b>6</b>

Question	Answer	Marks
4(a)(i)	<p><b>Study Fig. 4.1, pie chart showing the percentage share of Pakistan’s fertiliser by province-level area.</b></p> <p><b>Complete Fig. 4.1 using the information in the key.</b></p> <ul style="list-style-type: none"> <li>• each correct division to create pie segment = 1 mark – max 2 marks;</li> <li>• correct use of key = 1 mark.</li> </ul> <p><b>Note:</b> must be completed in the correct order as shown in the table – largest to smallest, as indicated by the completed segment ‘other’</p> <p style="text-align: right;">3 @ 1 mark</p>	<b>3</b>
4(a)(ii)	<p><b>Define ‘secondary industry’.</b></p> <p>Changes raw material into a finished product/uses raw materials to manufacture products.</p> <p style="text-align: right;">1 @ 1 mark</p>	<b>1</b>
4(b)(i)	<p><b>Name <u>two</u> raw materials needed to manufacture fertiliser.</b></p> <ul style="list-style-type: none"> <li>• gypsum;</li> <li>• hydrogen;</li> <li>• natural gas;</li> <li>• nitrogen;</li> <li>• phosphate/phosphorous;</li> <li>• potash rock;</li> <li>• potassium;</li> <li>• sulphur;</li> <li>• water.</li> </ul> <p style="text-align: right;">2 @ 1 mark</p>	<b>2</b>
4(b)(ii)	<p><b>Study Fig. 4.2 (Insert), a photograph of a fertiliser factory in Pakistan. Describe <u>two</u> features of the factory shown.</b></p> <ul style="list-style-type: none"> <li>• tall towers/chimneys/many towers;</li> <li>• square/rectangular buildings;</li> <li>• white/silver/grey/yellow/gold buildings;</li> <li>• hardly any windows;</li> <li>• cranes;</li> <li>• large area of flat land/space/large factory;</li> <li>• multi storey/double storey;</li> <li>• pipes/pipelines;</li> </ul> <p>Etc.</p> <p><b>Note:</b> features must be visible on the photograph</p> <p style="text-align: right;">2 @ 1 mark</p>	<b>2</b>

Question	Answer	Marks
4(b)(iii)	<p><b>Describe the physical factors required for the location of a fertiliser factory.</b></p> <ul style="list-style-type: none"> <li>• availability of flat land (to build on);</li> <li>• large area of land/room to expand;</li> <li>• away from environmentally sensitive areas (to limit environmental impact);</li> <li>• near to a water source;</li> <li>• close to raw materials/raw materials available <u>nearby</u>;</li> <li>• stable land/not prone to earthquakes;</li> <li>• well drained land/not liable to flood;</li> </ul> <p>Etc.</p> <p><b>Note:</b> Named raw materials do not gain additional mark.</p> <p style="text-align: right;">4 @ 1 mark</p>	<b>4</b>
4(c)(i)	<p><b>State <u>three</u> ways in which the fertiliser industry is important to Pakistan.</b></p> <ul style="list-style-type: none"> <li>• to increase agricultural output/healthy crop growth;</li> <li>• reduce imports/as an export to bring in revenue;</li> <li>• to provide employment opportunities;</li> <li>• to make use of Pakistan's mineral resources;</li> <li>• to develop the formal sector;</li> <li>• soil is nitrate deficient;</li> </ul> <p>Etc.</p> <p style="text-align: right;">3 @ 1 mark</p>	<b>3</b>
4(c)(ii)	<p><b>Explain <u>two</u> negative impacts of using fertilisers and pesticides in Pakistan. You should develop your answer.</b></p> <ul style="list-style-type: none"> <li>• chemicals drain into rivers; causing eutrophication/pollutes water/growth of algae/reduced oxygen/fish die;</li> <li>• increased toxicity in rivers/pollutes rivers; threat to livestock/human health;</li> <li>• can weaken the human immune system; increased risk of diseases/gastro-intestinal disease/tuberculosis;</li> <li>• damage ecosystems; break down food-chains;</li> <li>• loss of/destruction of habitats/harmful to animals; animals move away or die out;</li> </ul> <p>Etc.</p> <p><b>Note:</b> One mark for identification of appropriate idea and a further mark for development.</p> <p><b>Note:</b> Max. 2 marks if no development.</p> <p style="text-align: right;">2 @ 2 marks</p>	<b>4</b>

Question	Answer	Marks
4(d)	<p><b>Pakistan's agricultural sector is becoming increasingly dependent on fertiliser. Read the following two views about ways of meeting the demand for fertiliser.</b></p> <p><b>View A</b> Additional research and use of technology in Pakistan's fertiliser industry is the best way of providing more fertiliser for agricultural use.</p> <p><b>View B</b> Increasing imports of fertiliser is the best way to provide more fertiliser for agricultural use in Pakistan.</p> <p><b>Which view do you agree with more? Give reasons to support your answer and refer to examples you have studied. You should consider View A and View B in your answer.</b></p> <p><b>Levels marking</b></p> <p>No valid response <span style="float: right;"><b>0</b></span></p> <p><b>Level 1</b> <span style="float: right;"><b>1–2</b></span> Simple point referring to one view (1) Simple points referring to any view (2)</p> <p><b>Level 2</b> <span style="float: right;"><b>3–4</b></span> Developed point referring to one view (3) Developed points referring to both views (4)</p> <p><b>Level 3</b> <span style="float: right;"><b>5–6</b></span> Developed points referring to both views with evaluation or relevant example (5) Developed points referring to both views with evaluation and relevant example (6)</p> <p><b>Content Guide</b> Answers are likely to refer to:</p> <p><b>Agree with View A because:</b></p> <ul style="list-style-type: none"> <li>• Pakistan is an agro-based country and should improve technology further to keep a-pace with demand;</li> <li>• if Pakistan is self-sufficient in the production of fertilisers it will reduce imports and help with the balance of payments;</li> <li>• Pakistan has plenty of raw materials required to produce enough fertilisers so should increase the number of factories; improved technology will save money and create skilled jobs;</li> <li>• increased demand can be met internally;</li> </ul> <p>Etc.</p> <p><b>Disagree with View B because:</b></p> <ul style="list-style-type: none"> <li>• the cost of imports will burden the economy;</li> <li>• reliance on other countries for fertiliser means that this could lead to the price of fertiliser rising;</li> </ul>	<b>6</b>

Question	Answer	Marks
4(d)	<ul style="list-style-type: none"> <li>if relations between the trading country/partner breaks down then Pakistan might experience a fertiliser shortage which could damage agricultural production;</li> <li>prices will fluctuate;</li> <li>Etc.</li> </ul> <p><b>Agree with View B:</b></p> <ul style="list-style-type: none"> <li>it may be more financially viable to invest in other industries that would provide a higher return (and/or named examples);</li> <li>it is cheaper to import fertilisers than produce them;</li> <li>extracting the minerals to produce the fertilisers is environmentally damaging;</li> <li>more organic farming should be introduced rather than relying on chemicals as less environmental pollution will be caused and it is healthier for the livestock and people;</li> <li>demand for fertiliser is always higher than the amount produced;</li> <li>Etc.</li> </ul> <p><b>Disagree with View A:</b></p> <ul style="list-style-type: none"> <li>there may not be capacity of skilled and professional people/scientists to do this/ may be needed to work in other industries;</li> <li>Pakistan should invest in other high value businesses rather than the fertiliser industry to gain higher income from trade;</li> <li>should move towards manufacturing and services rather than relying on being agro-based economically/socially;</li> <li>the cost of research would be higher compared to imports;</li> <li>Etc.</li> </ul>	

Question	Answer	Marks
5(a)(i)	<p><b>Study Fig. 5.1, a line graph showing the unemployment rate (as a percentage of the population) in Pakistan between 2008 and 2018.</b></p> <p><b>Complete Fig 5.1 to show that 3% of the population were unemployed in 2013.</b></p> <p>Point plotted at 3% and line joined up.</p> <p style="text-align: right;">1 @ 1 mark</p>	1
5(a)(ii)	<p><b>In which year was the unemployment rate lowest?</b></p> <p>2008</p> <p style="text-align: right;">1 @ 1 mark</p>	1
5(a)(iii)	<p><b>Which of the following statements best describe the change in the unemployment rate between 2008 and 2018? Tick (✓) <u>two</u> boxes in the table below:</b></p> <p>fluctuated, generally increased</p> <p style="text-align: right;">1 @ 1 mark</p>	1

Question	Answer	Marks
5(a)(iii)	<p><b>In 2018 the total working-age population of Pakistan was 127 million and the unemployment rate was 3%. Calculate the number of unemployed people in Pakistan in 2018. Show your working in the box below.</b></p> <p>127 000 000 ÷ 100 × 3 = 3 810 000 (people)</p> <p><b>Note:</b> reserve one mark for working out. If correct answer but no working or incorrect working = max 1 mark</p> <p style="text-align: right;">2 @ 1 mark</p>	<b>2</b>
5(b)(i)	<p><b>Define ‘underemployment’.</b></p> <p>People are working fewer hours than they wish/people who are not fully employed/doing jobs that they are over qualified for.</p> <p style="text-align: right;">1 @ 1 mark</p>	<b>1</b>
5(b)(ii)	<p><b>Suggest <u>two</u> reasons for unemployment and <u>two</u> reasons for underemployment in Pakistan.</b></p> <p><b>Reasons for unemployment:</b></p> <ul style="list-style-type: none"> <li>• rapidly growing population;</li> <li>• mechanisation of farming;</li> <li>• increased use of technology;</li> <li>• rural to urban migration;</li> <li>• reduction in demand for some products;</li> <li>• natural disasters or examples e.g. floods/earthquakes;</li> <li>• not enough jobs for the number of people;</li> <li>• some of the workforce have lower levels of education/literacy/skills;</li> </ul> <p><b>Reasons for underemployment:</b></p> <ul style="list-style-type: none"> <li>• jobs may be seasonal e.g. cotton picking;</li> <li>• increased mechanisation of farming;</li> <li>• increased use of technology;</li> <li>• mainly part time jobs available;</li> <li>• cultural restraints/traditions/family ties;</li> </ul> <p>Etc.</p> <p><b>Note:</b> Different reasons required for unemployment and underemployment.</p> <p style="text-align: right;">4 @ 1 mark</p>	<b>4</b>
5(b)(iii)	<p><b>Describe how unemployment and underemployment can influence GDP in Pakistan.</b></p> <ul style="list-style-type: none"> <li>• reduced/low GDP/negative impact;</li> <li>• under-utilisation of human resources results in low GDP;</li> <li>• wages decrease therefore taxes collected are reduced leading to low GDP;</li> <li>• lower consumer expenditure which reduces a country’s earnings/slows economic growth;</li> <li>• leads to out migration/international migration/emigration affecting GDP;</li> </ul> <p>Etc.</p> <p style="text-align: right;">3 @ 1 mark</p>	<b>3</b>

Question	Answer	Marks
5(c)(i)	<p><b>Name <u>two</u> jobs in Pakistan’s informal sector.</b></p> <ul style="list-style-type: none"> <li>• rug making;</li> <li>• making pottery/ceramics;</li> <li>• weaving/making textiles;</li> <li>• street vendors;</li> <li>• fruit seller;</li> <li>• cleaners;</li> <li>• handicrafts at home/tailor/pedlar.</li> </ul> <p>Etc.</p> <p style="text-align: right;">2 @ 1 mark</p>	<b>2</b>
5(c)(ii)	<p><b>Explain how employment opportunities are affected by the availability of manual labour <u>and</u> skilled labour in Pakistan. You should develop your answer.</b></p> <p><b>manual labour</b></p> <ul style="list-style-type: none"> <li>• abundance of manual labour will promote low paid primary activities; thereby reducing employment opportunities and/or higher earnings;</li> <li>• less manual labour means fewer people to do the low paid primary jobs such as farming/mining; resulting in low output and/or food shortages;</li> </ul> <p><b>skilled labour</b></p> <ul style="list-style-type: none"> <li>• abundance of skilled labour will encourage international companies to invest in Pakistan; thereby promoting employment opportunities;</li> <li>• less skilled labour limits employment opportunities and/or industrial development in the secondary and tertiary sectors; limiting competition with other countries;</li> <li>• industries need skilled labour to operate; due to high cost of machinery/prefer people over machines or examples;</li> <li>• literate people/entrepreneurs create job opportunities; reduces unemployment/boosts the economy;</li> </ul> <p>Etc.</p> <p><b>Note:</b> One mark for identification of appropriate idea and a further mark for development. <b>Note:</b> Max. 2 marks if no development.</p> <p style="text-align: right;">2 @ 2 marks</p>	<b>4</b>

Question	Answer	Marks
5(d)	<p><b>Pakistan's literacy rate was 60 per cent in 2020 and was predicted to be 68 per cent by 2025. To accelerate this growth, a new government initiative was introduced with the target of achieving a national literacy rate of 90 per cent by 2025.</b></p> <p><b>Assess the extent to which higher literacy rates may increase employment opportunities for people in Pakistan. Give reasons to support your <u>judgement</u> and refer to examples you have studied. You should consider <u>different</u> points of view in your answer.</b></p> <p><b>Levels marking</b></p> <p>No valid response <span style="float: right;"><b>0</b></span></p> <p><b>Level 1</b> <span style="float: right;"><b>1–2</b></span>  Simple point referring to one view (1)  Simple points referring to any view (2)</p> <p><b>Level 2</b> <span style="float: right;"><b>3–4</b></span>  Developed point referring to one view (3)  Developed points referring to both views (4)</p> <p><b>Level 3</b> <span style="float: right;"><b>5–6</b></span>  Developed points referring to both views with evaluation or relevant example (5)  Developed points referring to both views with evaluation and relevant example (6)</p> <p><b>Content Guide</b></p> <p>Answers are likely to refer to:</p> <p><b>higher literacy rates may increase people's employment opportunities because:</b></p> <ul style="list-style-type: none"> <li>• it would make people more attractive to employers;</li> <li>• more skilled people bigger range of jobs open to them especially in the public sector;</li> <li>• people in education and training for longer will not join unemployment statistics at 16;</li> <li>• may encourage people to seek jobs overseas;</li> </ul> <p>Etc.</p> <p><b>higher literacy rates may not increase people's employment opportunities because:</b></p> <ul style="list-style-type: none"> <li>• may not be enough jobs for people with literacy skills;</li> <li>• Pakistan needs to invest further in secondary and tertiary industry to create jobs;</li> <li>• Pakistan needs to attract increased foreign investment to create jobs;</li> </ul> <p>Etc.</p> <p>Examples can be job types.</p>	<b>6</b>