



Cambridge Assessment International Education
Cambridge Ordinary Level

PAKISTAN STUDIES

2059/02

Paper 2 Environment of Pakistan

October/November 2017

MARK SCHEME

Maximum Mark: 75

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.

Cambridge International will not enter into discussions about these mark schemes.

Cambridge International is publishing the mark schemes for the October/November 2017 series for most Cambridge IGCSE[®], Cambridge International A and AS Level components and some Cambridge O Level components.

© IGCSE is a registered trademark.

This document consists of **19** printed pages.



Question	Answer	Marks
1(a)(i)	- Irregular pattern / arrangement; - Crowded / closely built / high density; - No open space / garden / small yards; - Two storey / single storey / low buildings / houses; - Small buildings / houses; - Flat roofs; - Brick built; - Water containers on roofs; - Power cables / transmission lines / telephone lines; - Not glass windows / not many windows; - Lack of vegetation; - Narrow roads / pavements. 3 @ 1 mark	3
1(a)(ii)	- Considered a temporary living area; - To be closer to work / to find work / more jobs available / high wages; - To be closer to shops / entertainment / bright lights; - To move in with relatives; - Cannot afford higher quality housing / low rent or cheaper housing / low land tax; - Lack / shortage of higher quality housing provision by authorities; - Better housing than in squatter settlements / katchi abadis; - Close to / improved transport links; - Close to / improved education facilities; - Close to / improved medical facilities; - Close to services, e.g. electricity, water, gas, sewage, etc. 4 @ 1 mark	4
1(b)(i)	- Pests / crop disease; - Storms / floods / heavy rain / frost / drought; - Overcultivation / overgrazing; - Waterlogging and salinity; - Desertification / soil erosion / infertile soil; - Inheritance laws / farm / plot size too small; - Cannot afford named agricultural input, e.g. seeds; - Mismanagement / neglect / landlords lack incentive; - Increasing population growth / high population; - Lack of education – farming methods / farming practices / traditional methods; - Lack of irrigation. 2 @ 1 mark	2

Question	Answer	Marks
1(b)(ii)	• Increase production of fodder crops; • Provide more land for grazing; • Improve feed / better food / healthy food / hygienic food; • Improve veterinary facilities / number of vets; • Vaccinations / vitamins / medicines / treatment; • Provide shelter from elements / weather in winter / living in hygienic conditions; • Government support / agricultural development funds / loans; • Education for farmers on animal health/husbandry / disease prevention / selective breeding / cross breeding; • Investment from multinational companies in poultry / milk processing; • Introduction of machines, e.g. milking machines. 3 @ 1 mark	3
1(c)(i)	9.5/000 / 9.5 per 000 – UNIT required (allow 9.3–9.5) 1 @ 1 mark	1
1(c)(ii)	Decreased / fallen / lowered / gone down / declined 1 @ 1 mark	1
1(c)(iii)	• Better / more healthcare / medicines / clinics; • More / better trained doctors / nurses / midwives; • More widespread vaccinations / prevention of named diseases, e.g. malaria, cholera, typhoid; • Improved hygiene / access to clean drinking water / sewage; • Improvement in food production / supply; • Better education or advice on what to eat / improved diet / healthy lifestyles / stopping smoking / more exercise. 1 @ 1 mark	1

Question	Answer	Marks
1(c)(iv)	- Population increases (pressure on named resource / increased crime / qualified pollution / specified congestion); - More elderly to share experience / give advice / training (and so improve skills of working population); - More elderly to offer family support (allowing more parents to work); - Decreased infant mortality (pressure on healthcare / education); - More people to contribute to labour force / more economically active (improves family income / greater productivity); - Strain on families to support elderly; more dependents / higher dependency ratio (meaning more people who have to be supported by smaller share of working population / who do not contribute to the economy / financial burden); - Strain on government / local authorities (to provide named services such as pensions / homes for elderly / healthcare / schools); - High cost of supporting elderly (causing taxes to be raised / longer working hours for wage earners / increase in pension age); - More people of working age (more competition for jobs / increased unemployment / increased crime). ETC. Note: One mark for identification of appropriate idea and a further mark for development (in parentheses). Note: Max. 2 marks if no development. 2 @ 2 marks	4

Question	Answer	Marks
1(d)	Levels marking No valid response (0 marks) Level 1 (1–2 marks) Simple point addressing any view (1) Simple points addressing any view (2) Level 2 (3–4 marks) Developed point(s) explaining one view (3) Developed point(s) explaining both views (4) No evaluation Level 3 (5–6 marks) Well-developed points explaining both views. Evaluation giving clear support to one view or appropriate example (5) Well-developed points explaining both views. Evaluation giving clear support to one view and appropriate example (6) Content Guide Answers are likely to refer to: <u>View A</u> <u>For</u> • Self-help schemes; • Schemes to renovate houses; • Projects to build permanent housing / new low-cost housing; • Loans to build own housing; • Infrastructural development; • Successful examples in Pakistan (e.g. Orangi Pilot Project, Karachi). <u>Against</u> • High cost of building materials / construction; • Huge size of the problem – some slums are very large / makes projects very costly / long term; • May attract more rural migrants; • Local / community resistance to change. <u>View B</u> <u>For</u> • Rural electrification / transmission lines; • Other named infrastructure improvements, e.g. sewerage, roads; • Build new settlements along roads; • Schemes to support agriculture / cottage industries; • Schemes to provide services – healthcare / education. <u>Against</u> • Pull factors of urban areas too great to prevent migration from rural areas; • Push factors of rural areas more large-scale / widespread; • Control of landlords / loss of land; • Remoteness of rural areas makes it difficult to improve. ETC.	6

Question	Answer	Marks
2(a)(i)	In space LHS of diagram: limestone / gypsum (calcium sulphate) / clay / shale / chalk 1 @ 1 mark	1
2(a)(ii)	Primary – job related to mining raw materials (coal, limestone, gypsum) / mine / quarrymen; Secondary – job related to manufacturing product, packing / bagging product / factory worker; Tertiary – job related to lorry driving / sales / advertising / cleaning / maintenance. 3 @ 1 mark	3
2(a)(iii)	• Employed / not self-employed / registered with government / legal; • Trained / skilled workforce; • Uniform / dress code; • Improved working conditions / named example – pension; • Regular working hours / fixed working hours; • Fixed / regular / higher wages; • More likely to use machines / equipment / not labour intensive; • Purpose-built office / factory; • Less likely to be female / child labour. 3 @ 1 mark	3
2(b)(i)	• [Crude / refined] oil / petroleum; • Coal [briquettes]. 2 @ 1 mark	2
2(b)(ii)	• Discourages development of Pakistan's own natural resources sector / renewable energy sector (creating fewer job opportunities) (preventing growth of national economy); • Dependent on other countries (which might restrict imports due to trade embargoes / worsening political relations / political instability); • Dependent on trade in basic commodities (therefore vulnerable to changes / fluctuations in world supply / market prices); • Limited international transport links for importing minerals (e.g. few road border crossings with Afghanistan / Iran / China / India) (e.g. Karachi Port too congested) (e.g. Gwadar Port not fully developed); • Air / water pollution from international transport (e.g. oil spillage at Karachi beach). ETC. Note: One mark for identification of appropriate idea and a further mark for development (in parentheses). Note: Max. 2 marks if no development. 2 @ 2 marks	4
2(c)(i)	A = Quetta B = Hyderabad 2 @ 1 mark	2

Question	Answer	Marks
2(c)(ii)	• EITHER Balochistan / Tharparkar / Thar Desert / Kharan Desert / Zhob Desert / Cholistan Desert / Chagi Desert / Makran Desert; • OR a named district in Balochistan: Awaran / Barkhan / Bolan / Chagi / Dera Bugti / Gwadar / JhalMagsi / Kachi / Kalat / Kech / Kharan / Khuzdar / Kohla / Lasbela / Loralai / Mastung / Musa Khel Bazar / Nushki / Panjgur / Piskin / Sherani / Qila A Saifullah / Sibi / Wazuk / Ziarat / Zhob; • OR a named mountain range: Suleiman Range / Chaghi Range / Central Brahui Range / Toba Kakar Range / Makran Range / Kharan Range / Pab Range / Kirthan Range. 1 @ 1 mark	1
2(c)(iii)	• Few / poor / little trade / transport routes / named transport infrastructure; • Lack of education / healthcare; • Lack of job opportunities / unemployment; • Poor / lack of named infrastructure other than transport, e.g. electricity / water supply / sewerage; • Poor / lack of access to food / essential supplies; • Unrest / security issues; • Nomadic lifestyle; • Barren area / deforestation / soil erosion. 3 @ 1 mark	3

Question	Answer	Marks
2(d)	Levels marking No valid response (0 marks) Level 1 (1–2 marks) Simple point addressing any view (1) Simple points addressing any view (2) Level 2 (3–4 marks) Developed point(s) explaining one view (3) Developed point(s) explaining both views (4) No evaluation Level 3 (5–6 marks) Well-developed points explaining both views. Evaluation giving clear support to one view or appropriate example (5) Well-developed points explaining both views. Evaluation giving clear support to one view and appropriate example (6) Content Guide Answers are likely to refer to: <u>View A</u> <u>For</u> • Industrial policy / taxation; • Investment; • Infrastructure / power projects; • Training in skills / examples of; • Services to industries. <u>Against</u> • Mismanagement; • Inconsistency of government policy / changes of government; • Delay in / cancellation of government projects. <u>View B</u> <u>For</u> • Shortage of electricity generation and problems with supply; • Natural disasters divert national funds away from industry; • Security issues / unrest. <u>Against</u> • Destruction / damage can stimulate construction industry; • Cost of building earthquake-proof buildings is high; • Cost of emergency shelters during floods; • Cost of security. ETC.	6

Question	Answer	Marks				
3(a)(i)	A - Trout: brown / rainbow / Palla / Thalla / Catfish; - Carp: Mahseer (Mahasher) / rahu / grass / silver / catla / mrigal. 1 @ 1 mark B - Animal / poultry feed; - Local consumption / sold in local markets / fulfil requirements / food supply; - Source of protein; - Fish oil extracted / used in medicine; - Fish fertiliser / manure; - Export; - Breeding / saving species from extinction. 2 @ 1 mark	3				
3(a)(ii)	- Rectangular / man-made ponds; - Lined / concrete base / cemented endings; - Fill pond with water; - Add fish or stock / nursery/ different fry, juveniles, etc.; - Selective breeding programme; - Trees planted on farms [to prevent losses from evaporation / for shade]; - Water enriched with nutrients / fertilised with manure / from poultry droppings [for growth of plankton]; - Feed added to water / food provided; - Water filtered / changed / refilled / health and hygiene checked or maintained / chemicals or medicine to prevent disease. 3 @ 1 mark	3				
3(b)(i)	1980	1				
3(b)(ii)	<table border="1"><tr><td>Changes</td></tr><tr><td>Under 5 / (74 to 89) increases</td></tr><tr><td>5–20 / (24 to 10) decreases</td></tr><tr><td>21 and over / (2 to 1) decreases/halved</td></tr></table> 2 @ 1 mark	Changes	Under 5 / (74 to 89) increases	5–20 / (24 to 10) decreases	21 and over / (2 to 1) decreases/halved	2
Changes						
Under 5 / (74 to 89) increases						
5–20 / (24 to 10) decreases						
21 and over / (2 to 1) decreases/halved						

Question	Answer	Marks								
3(b)(iii)	<table><tr><th colspan="2">Reasons</th></tr><tr><td>Under 5 / (74 to 89)</td><td>Increasing sub-division of family plots because of inheritance laws Increasing population causing pressure on land</td></tr><tr><td>5–20 / (24 to 10)</td><td>Redistribution of landlord holdings / land reform reducing landlord holdings / consolidation of holdings</td></tr><tr><td>21 and over / (2 to 1)</td><td>Continues to represent a minority of farms in Pakistan / agriculture in Pakistan primarily subsistence</td></tr></table> 1 @ 1 mark	Reasons		Under 5 / (74 to 89)	Increasing sub-division of family plots because of inheritance laws Increasing population causing pressure on land	5–20 / (24 to 10)	Redistribution of landlord holdings / land reform reducing landlord holdings / consolidation of holdings	21 and over / (2 to 1)	Continues to represent a minority of farms in Pakistan / agriculture in Pakistan primarily subsistence	1
Reasons										
Under 5 / (74 to 89)	Increasing sub-division of family plots because of inheritance laws Increasing population causing pressure on land									
5–20 / (24 to 10)	Redistribution of landlord holdings / land reform reducing landlord holdings / consolidation of holdings									
21 and over / (2 to 1)	Continues to represent a minority of farms in Pakistan / agriculture in Pakistan primarily subsistence									
3(b)(iv)	For smaller farms: accept converse for larger farms: • Higher proportion wastage / longer time to harvest (since less able to use machinery / difficult to manoeuvre machinery); • Shorter / restricted / reduced harvest time (as more likely to / can only afford to rent rather than buy machinery / tractors); • Less able to grow crops for sale / less able to produce quality crops (as large land needed for monocultures / efficient / economic production); • Less able to invest in development of farm (as less likely to be able to obtain loans); • Crops less well irrigated and lower yields (as cannot afford / do not have modern irrigation / tubewells); • Higher yields / output per ha (since farming is intensive / intensive use of labour); • Small farms – smaller amount of crop produced than larger farms (mainly subsistence, so less for sale). For larger farms: • Farming inefficient or not all of land cultivated (Zamindari system provides less incentive as large landlords are absent / workers are landless); • Larger farms – larger amount of crop can be produced than smaller farms. ETC. Note: One mark for identification of appropriate idea and a further mark for development (in parentheses). Note: Max. 2 marks if no development. 2 @ 2 marks	4								

Question	Answer	Marks
3(c)(i)	A Millet / jowar / bajra B • Will grow in dry / semi-arid / barani areas / few irrigation facilities; • Will grow in poor / sandy soil; • Has a short growing season; • Flat land available / on marginal land. C Soil – one of: well drained, light, sandy, alluvial, loamy, not waterlogged Climate – one of: warm / 21–30 °C, frost free, low rainfall / 200–1000 mm 3 @ 1 mark	3
3(c)(ii)	• Rapid increase in population; • Increase in per capita consumption of sugar; • Export of (raw) sugar; • Raw material for other industries – waste material – Bagasie (cardboard / chipboard / paper animal feed) / molasses (cattle feed / citric acid) 2 @ 1 mark	2

Question	Answer	Marks
3(d)	Levels marking No valid response (0 marks) Level 1 (1–2 marks) Simple point addressing any view (1) Simple points addressing any view (2) Level 2 (3–4 marks) Developed point(s) explaining one view (3) Developed point(s) explaining both views (4) No evaluation Level 3 (5–6 marks) Well-developed points explaining both views. Evaluation giving clear support to one view or appropriate example (5) Well-developed points explaining both views. Evaluation giving clear support to one view and appropriate example (6) Content Guide Answers are likely to refer to: <u>Possible</u> • Leaving part of the land fallow; • Line / temporary closure of canals; • Install tubewells; • Planting eucalyptus trees; • Digging surface / sub-surface drains; • Removing salts by adding gypsum; • Salinity Control and Reclamation Project; • Cultivating salt tolerant crops / use saline land for livestock. <u>Not possible</u> • Cost of maintaining / replacing tubewells / other measures; • Farmers continue to over-irrigate; • SCARP projects date from 1958 and large public tubewells deteriorating / reaching end of their life; • Lack of access to / cannot afford water; • Massive investment needed. ETC.	6

Question	Answer	Marks
4(a)(i)	A 64°E B Hab C Thal 3 @ 1 mark	3
4(a)(ii)	- Flat or gentle sloping land; - Lower Indus Plain / low altitude; - Flood plain / active floodplain (bet) / old floodplain; - Delta; - Limestone cliffs at Hyderabad (Ganjo Takkar Hills) / escarpment / cuesta; - Doab / sand dunes (tibbas); - Piedmont plains with alluvial fans. 3 @ 1 mark	3
4(a)(iii)	- Heavy (high) rainfall / monsoon rainfall; - Monsoon winds (strong wind) / SW monsoon / weather pattern from India / Arabian Sea; - Rapid snow melt (in Himalayas / Karokoram / Hindu Kush / Tibet); - Melting of glaciers (in Himalayas / Karokoram / Hindu Kush / Tibet). 2 @ 1 mark	2
4(b)(i)	How roads are interconnected / joined / distributed / spread out across an area / linkage of roads / road pattern 1 @ 1 mark	1
4(b)(ii)	Bar drawn at 7 for number of roads (allow 6–8) Correctly shaded using key 1 @ 1 mark 1 @ 1 mark	2
4(b)(iii)	- Rugged / steep slopes / high / hilly terrain (making road building difficult) or (more expensive to build – embankments / cuttings / tunnels / bridges); - Unstable land – landslide / rock falls (dangerous); - Remote / uninhabited / low population density areas / few people live in these areas (so less demand for roads / so hard to supply equipment / lack of labour to build roads); - Groups who live in these areas may be traditional in outlook (and therefore oppose areas being opened up by roads / are resistant to modernisation); - Long distance to cover between towns (making road projects expensive); - Lack of investment; - Extreme weather / extremely cold / snow / frost (roads blocked by snow). ETC. Note: One mark for identification of appropriate idea and a further mark for development (in parentheses). Note: Max. 2 marks if no development. 2 @ 2 marks	4
4(c)(i)	One of: babul, shisham, acacia, coniferous / spruce / fir, eucalyptus, jhand, tamarisk, fruit trees. 1 @ 1 mark	1

Question	Answer	Marks
4(c)(ii)	• Rainfall – in sufficient quantity / distributed throughout the year / arid areas only thorn or scrub / wetter areas for evergreen / broad-leaved; • Temperature – mild / warm for non-coniferous / cool / cold for coniferous; • Extent of water supply other than rainfall – oases / aquifer at surface, river banks, sea / estuary / delta for mangroves / tolerates salt; • Soil – alluvium for mangrove / riverain / soil type influences density of forest; • Altitude – types of forest vary with altitude / only up to treeline at 4000 m / coniferous 1000–4000 m / thorn / scrub / riverain below 1000 m. 3 @ 1 mark	3

Question	Answer	Marks
4(d)	Levels marking No valid response (0 marks) Level 1 (1–2 marks) Simple point addressing any view (1) Simple points addressing any view (2) Level 2 (3–4 marks) Developed point(s) explaining one view (3) Developed point(s) explaining both views (4) No evaluation Level 3 (5–6 marks) Well-developed points explaining both views – benefits and problems with reference to people or environment with evaluation giving clear support to one view or appropriate example (5) Well-developed points explaining both views – benefits and problems with reference to people or environment with evaluation giving clear support to one view and appropriate example (6) Content Guide Answers are likely to refer to: <u>Benefits</u> • Quicker / cheaper long distance travel for passengers / goods; • More developed public transport network means less need for / expense of car ownership; • Employment in named transport industry / building motorways; • Greater mobility of labour / university students; • Greater ability to transport bulky / low value goods / freight / minerals; • Rail development reduces number of cars / lorries on the roads and amount of air pollution / fumes from road vehicles; • Development of industrial estates / settlements alongside new roads. <u>Problems</u> • Rail not door-to-door / trains only stop at stations; • Fumes from diesel trains cause air pollution / very polluting; • Noise pollution; • Railway tracks / motorways use up / divide farmland; • Railway tracks / motorways destroy / disturb / divide natural habitat; • Relocation of people / loss of homes / reduces value of property. ETC.	6

Question	Answer	Marks
5(a)(i)	- Season / seasonal; - Seasonal wind / weather pattern; - Short period of heavy rain / a wet season (Jul to Sept). 1 @ 1 mark	1
5(a)(ii)	- Rainfall concentrated in Jul–Sept / wet season Jul–Sept; - Little rainfall Oct–Jun / dry season Oct–Jan / Apr–May; - High annual temperature / 30 °C–34 °C; - Highest temperature in Jun just before wet season starts. 2 @ 1 mark	2
5(a)(iii)	- July low pressure on land / central Asia. December high pressure on land / central Asia or July lower pressure on land / central Asia than December; - July moist air / rain bearing winds from sea / Indian Ocean / Bay of Bengal: December dry winds blow from land to sea / winds reverse from July SW to December NE; - July tail end of monsoon winds reach northern / north-eastern Pakistan / December little moisture reaches eastern / north-eastern Pakistan; - July has high (higher, warmer) temps with more humidity / December has low (lower, cooler) temps with less humidity. 2 @ 1 mark	2
5(b)(i)	Statement 3: 'A greater % of males are working than females' Statement 4: 'A greater % of people are working in rural than urban areas' 2 @ 1 mark	2
5(b)(ii)	- Higher proportion of women work in agriculture in rural areas / in general, higher percentage of population work in agriculture in rural areas than in urban areas; - Higher proportion of women work in cottage industries and small-scale industries in rural areas; - More male than female labour migrates from rural areas to urban areas; - Mismatched of labour / skills for work in urban areas; - Traditional / cultural values less likely to accept women working outside home / women stay at home; - Traditional / cultural values mean males more likely to be seen as 'bread winners' in urban areas; - In urban areas males paid more than females; - Employment in rural areas is more labour intensive than in urban areas / less labour intensive in urban areas. 3 @ 1 mark	3

Question	Answer	Marks
5(b)(iii)	• Quicker / more efficient (allowing greater production / profitability); • Fewer workers needed (saving labour costs); • Standardisation of products (improving quality for export); • Reduces / replaces child labour (increasing trade opportunities / lifting embargos with countries previously not trading with Pakistan because of this issue); • Increases skills (and therefore more competitive in global market); • Costs per unit will decrease (increase profits). ETC. Note: One mark for identification of appropriate idea and a further mark for development (in parentheses). Note: Max. 2 marks if no development. 2 @ 2 marks	4
5(c)(i)	Quetta / Gilgit 1 @ 1 mark	1
5(c)(ii)	• Difficulty with cost of obtaining heating fuel / gas; • Unable to farm / grow crops / less income from agriculture / transhumance; • Difficulty travelling by road / rail / air due to named adverse weather, e.g. snow / fog / landslides / ice / slippery roads; • Loss of telecommunications / electricity due to heavy snowfall; • Isolated / cut off from lowland areas; • Danger of death from cold / hypothermia, especially for elderly / children; • Requires adaptations to clothing / housing; • Income from named tourist opportunities, e.g. mountaineering, rock climbing; • Fewer mosquitoes / biting insects / diseases, e.g. malaria; • Encouragement of small-scale cottage industries. 4 @ 1 mark	4

Question	Answer	Marks
5(d)	Levels marking No valid response (0 marks) Level 1 (1–2 marks) Simple point addressing any view (1) Simple points addressing any view (2) Level 2 (3–4 marks) Developed point(s) explaining one view (3) Developed point(s) explaining both views (4) No evaluation Level 3 (5–6 marks) Well-developed points explaining both views. Evaluation giving clear support to one view or appropriate example (5) Well-developed points explaining both views. Evaluation giving clear support to one view and appropriate example (6) Content Guide Answers are likely to refer to: <u>View A</u> <u>For</u> • High population; • Large demand for passenger travel; • Global airline companies more likely to fly new routes to largest cities / provincial capitals; • Large international airport already present; • Cheaper to expand at current site than construct at a new site as air traffic control / multiple terminal buildings already exist; • Headquarters of Pakistan International Airlines; • Shorter distance to travel to Middle East / Gulf states than interior such as Sialkot; • Large industrial city; • Good (named) infrastructure facilities present. <u>Against</u> • Increase in noise / air pollution at Jinnah site; • Increase in traffic congestion to and from airport; • Uneven development.	6

Question	Answer	Marks
5(d)	<u>View B</u> <u>For</u> • Shorter distance to travel to Iran / Afghanistan / China / India; • Demand for trade in local manufactured items; • Even development of air transport infrastructure over country; • Bring in tourists / income from tourism. <u>Against</u> • Cost of providing air facilities at new sites; • Serve smaller populations – less likely to generate large numbers of passengers / profit; • Nok Kundi very remote; • Difficulties in building in Balochistan due to climate. ETC.	