Cambridge O Level

PAKISTAN STUDIES **2059/02**

Paper 2 The Environment of Pakistan **October/November 2023**

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.

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This document consists of **24** 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.

Annotations	Display name	How annotations are applied
✔	Tick	to indicate each correct point
^	^	Omission (inverted v) for any response that is not quite good enough to gain a mark.
BOD	BOD	Benefit of the doubt. The response may not be exactly as it is written in the mark scheme but the meaning is there.
✖	Cross	to indicate an incorrect point.
DEV	DEV	to indicate development of a point or an idea in: • 4 mark develop answers. • 6 mark level response answers.
EG	EG	Example. To indicate a place specific or exemplification in a 6 mark level response answer
EVAL	EVAL	Evaluation. To indicate an evaluative statement in a 6 mark level response answer
L1 L2 L3	L1 L2 L3	Level stamp. Indicates the final level of a 6 mark level response. Place on the right-hand side at end of the response
NAQ	NAQ	Not answered the question set/the given response is irrelevant
REP	REP	Repetition. The same point/example given.
SEEN	SEEN	Placed on all blank pages to indicate the examiner has seen every page of the script.

Question	Answer	Marks
1(a)(i)	**Study Fig. 1.1., a map showing southern Pakistan and surrounding countries.** **Name the province labelled <u>V</u> and the <u>two</u> cities labelled <u>W</u> and <u>X</u> on Fig 1.1.** V = Balochistan W = Quetta X = Gwadar 3 @ 1 mark	**3**
1(a)(ii)	**Using Fig. 1.1. <u>only</u>:** • **state the straight-line distance between city <u>X</u> and city <u>W</u>.** • **state the direction of city <u>X</u> from city <u>W</u>.** 640 (km) (Accept 620–660) south west or SW 2 @ 1 mark	**2**
1(iii)	**Identify the line of latitude labelled <u>Y</u> on Fig. 1.1.** Tropic of Cancer / 23.5 °<u>N</u> (accept 23.0 °<u>N</u>–23.9 °<u>N</u> or 23 °<u>N</u>)	**1**

1(a)(iv)	**Using Fig. 1.1. <u>only</u>, describe the location of the mountains labelled <u>Z</u>.**
	
	• western/south-western part <u>of Pakistan</u>
	• near border with Afghanistan/near international boundary/near to a province level boundary
	• in eastern/central part <u>of the province</u>
	• near to Kharan Desert
	• between 26°–30 °N and 66°–67.5 °E
	• between the Kharan Desert and the River Indus
	• direction from any other feature located on the map (Max 1)
	  E/SE of Kharan Desert/Iran
	  W/SW/NW of India/River Indus
	  S/SE of Afghanistan
	  N/NE of Arabian Sea
	• distance from any other feature named on the map (Max 1)
	  20–420 km from Kharan desert
	  100–500 km from Arabian Sea
	  80–400 km from the River Indus
	
	3 @ 1 mark
		3

Question	Answer	Marks
1(b)(i)	**Define and give an example of 'natural topography'.** • the <u>surface/physical</u> features of the land/landscape • the forms and features of the land's <u>surface</u> • the terrain • crater/desert/floodplain/hill/lake/mountain/pass/peak/plain/ plateau/ravine/ridges/river/trough/valley or any other named physical feature, e.g. mountains: Western Mountains, Safed Koh Ranges, Waziristan Hills, Sulaiman Range, Kirthar Range North-Western Mountains, Hindu Kush Northern Mountains, The Karakoram, The Himalayas, Central Himalayas, Lesser Himalayas, The Siwaliks, Salt Range plateaux: Balochistan Plateau, Potwar Plateau passes: Kurram Pass, Khyber Pass, Lawarai Pass, Shundur Pass, Khunjerab Pass, Babusar Pass valleys: Swat, Chitral, Dir, Gilgit, Hunza, Baltistan, Murree & Gallies, Kaghan deserts: Kharan Desert, Thar Desert, Thal Desert rivers: Indus, Jhelum, Chenab, Ravi, Sutlej, Kabul, Hab, Dasht Indus Plain – Lower & Upper 2 @ 1 mark	**2**

Question	Answer	Marks
1(b)(ii)	**Explain <u>two</u> ways deserts restrict agricultural activities in Pakistan. You should develop your answer.** • climate is dry/rainfall is very low/scarce/lack of water; so <u>not many varieties</u> of crops can grow there (dev) cannot adapt to the extreme climate conditions • extreme heat/hot climate makes working/living conditions very difficult; hence there are few settlements for workers (dev) few markets to sell goods to • very few towns/sparse population; so there is little demand for growing many crops in these areas • strong winds/moving sand; crops would be constantly buried/covered in sand • soils are infertile/lack nutrients/rocky/rugged/barren land; they do not contain any alluvium/would need a lot of fertilisers for crops to grow • little vegetation to provide shade/shelter from winds; plants can be scorched/crops damaged by winds/fodder has to be provided • pests (such as locusts) are prevalent; which means they would destroy the crops grown/pesticides would be needed • deserts are remote/inaccessible; so it is difficult/expensive to transport crops to other areas to sell/to markets • growing crops in deserts would be very costly; because they would need irrigation systems • sand is difficult to drive farm machinery/vehicles over; which makes using equipment difficult **Note:** 1 mark for simple point and a further mark for the development of the point. 1 mark for second simple point and a further mark for development of the second point. **Note:** Max. 2 marks if no development. 2 @ 2 marks	4
1(c)	**Suggest <u>four</u> ways, other than agriculture, that deserts can be used by people.** • mining/drilling/extraction (of sand/gas/oil/coal/other minerals) • location of solar panels/solar farms/for solar power • location of brick kilns/factories/manufacturing/cottage industries • power lines/communication masts/roads/railway building • <u>building</u> settlements • military training/military bases • people can follow a traditional/nomadic lifestyle • waste disposal sites Tourism/leisure purposes **(**max 2**)** • tourist attractions/hotels/desert safari/wild camping/glamping/camel rides/hot air ballooning/photography/hiking/trekking/climbing/quad biking/sand boarding/extreme sports/camel racing/rally driving 4 @ 1 mark	4

Question	Answer	Marks
1(d)	**To what extent is building additional motorways and major roads in all areas of Pakistan essential for its future economic development?** **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.** **Levels marking** No valid response **0** **Level 1** **1–2** Simple point referring to one view (1) Simple points referring to any view (2) **Level 2** **3–4** Developed point referring to one view only (3) Developed points referring to both views or developed point and a relevant example (4) **Level 3** **5–6** Developed points referring to both views with evaluation or relevant example (5) Developed points referring to both views with evaluation and relevant example (6) **Content guide** Building additional motorways and roads in all areas is essential for future economic development because: • would allow ease of movement for people/goods/raw materials to previously inaccessible areas/regions • would allow opportunity for the exploitation of minerals/raw materials which would otherwise be too expensive/inaccessible to extract • would encourage business opportunities to be more widespread across the country rather than focussed in the major towns and cities • could prevent/reduce rural to urban migration as people would be more able to commute • business corridors could be set up Building additional motorways and roads in all areas is not essential for future economic development because: • there is no need to build roads in all areas of Pakistan due to uneven population distribution, low demand in some regions makes cost unreasonable • it is expensive to build roads and railways in the northern areas due to extreme temperatures and steep slopes • businesses want to locate in or near to main towns and cities which already have roads • investment would be needed in rural areas to encourage business to locate/re-locate there, alongside new roads	6

Question	Answer	Marks
2(a)(i)	**Study Fig. 2.1. and Fig. 2.2., climate graphs showing rainfall and temperature for Multan and Lahore.** **Complete Fig. 2.1. and Fig. 2.2. to show the rainfall for Multan and Lahore in August using the information below.** Multan = 35 mm Lahore = 175 mm 2 @ 1 mark	**2**
2(a)(ii)	**Using Fig. 2.1. and Fig. 2.2. only, compare the climate of Multan with the climate of Lahore.** • Lahore has higher/more rainfall/Multan has lower/less rainfall • Multan has higher temperatures/Lahore has (slightly) lower temperatures • Lahore has some rainfall every month of the year but Multan does not/has no rainfall in October • the rainfall patterns/the temperature patterns are similar • both have high<u>est</u> rainfall in July • both have low<u>est</u> temperature in January • both have the high<u>est</u> temperature in June • comparative temperature data: highest temperature in Multan is 36 °C vs in Lahore 33.5 °C (accept ± 1 °C) lowest temperature in Multan is 13 °C vs in Lahore 12 °C (accept ± 1 °C) mean temperature 26 °C Multan vs 23 °C Lahore (accept ± 2 °C) temperature range 23 °C Multan vs 22 °C Lahore (accept ± 1 °C) • comparative rainfall data: total rainfall 193 mm Multan vs 686 mm Lahore (accept ± 10 mm) highest rainfall in Multan is 60 mm vs in Lahore 250 mm lowest rainfall in Multan is 0 mm vs in Lahore 4 mm **Note:** Reserve 1 mark for each of temperature and rainfall. Statements must be comparative. 3 @ 1 mark	**3**

Question	Answer	Marks
2(a)(iii)	**What type of climate region does Fig. 2.2. show? Suggest <u>one</u> reason for your answer.** • climate region: semi-arid/lowland • reason: it has low temperatures/mild/cool/cold <u>winters</u>/–5–25 °C in <u>winter</u> it has high temperatures/hot/warm <u>summers</u>/20–40 °C in <u>summer</u> it has some rainfall all year/high rainfall in summer/ monsoon rainfall/250–750 mm rainfall 2 @ 1 mark	**2**
2(b)(i)	**State <u>three</u> factors that affect temperature in Pakistan.** • latitude/<u>distance from the</u> equator/Tropic of Cancer • continentality/maritime effect/inland area/in a coastal area/distance from sea • altitude • cloud cover/rainfall/monsoon • shade/vegetation/deforestation • angle of the sun/seasons/time of year • wind <u>direction</u> • climate change/global warming 3 @ 1 mark	**3**
2(b)(ii)	**Describe the distribution of convectional rainfall and monsoon rainfall across Pakistan.** • convectional and/or monsoon rainfall are found in N/NW /both types found in N/NW convectional rainfall: • a smaller area/few areas affected/localised • Punjab/KPK experience convectional rainfall • southern areas are deprived of convectional rainfall monsoon rainfall: • more areas/larger area/widespread areas affected • in NE/central/SE • in KPK/Punjab/Sindh • on the Indus plain • (secondary/overactive monsoon) affect the sea/coastal area/Sindh coast • monsoon reaches the Thar desert **Note:** Reserve 1 mark for each of convectional and monsoon rainfall 3 @ 1 mark	**3**

Question	Answer	Marks
2(b)(iii)	**Explain the causes of the monsoon in Pakistan. You should develop your answer.** The south-west monsoon: • <u>winds blow/bring moist air</u> from the ocean/sea/originate from Indian Ocean/Bay of Bengal; the winds blow inland causing rainfall • in summer, sun heats up land/continent; land warms faster than the ocean • warm air over the land rises; this creates low pressure over land • air moves <u>from high pressure to low pressure</u> areas; making winds blow <u>from sea to land</u> The north-east monsoon: • during winter, the land is cool; the oceans are warmer than the land • cool air over the land sinks; high pressure is created over the land/Tropic of Cancer • air moves <u>from high pressure to low pressure</u> areas; making winds blow <u>from land to sea</u> • the winds are mostly dry; because they formed over a dry area **Note:** 1 mark for simple point and a further mark for the development of the point. 1 mark for second simple point and a further mark for development of the second point. **Note:** Max. 2 marks if no development. 2 @ 2 marks	4
2(c)	**State <u>two</u> types of weather associated with a depression.** • cyclone/(thunder)storm • rainfall/monsoon/precipitation/damp/wet • cloudy • windy 2 @ 1 mark	2

Question	Answer	Marks
2(d)	**Evaluate the impact of rain storms on agriculture, industry and communications 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.** **Levels marking** No valid response **0** **Level 1** **1–2** Simple point referring to one view (1) Simple points referring to any view (2) **Level 2** **3–4** Developed point referring to one view only (3) Developed points referring to both views or developed point and a relevant example (4) **Level 3** **5–6** Developed points referring to both views with evaluation or relevant example (5) Developed points referring to both views with evaluation and relevant example (6) **Content guide** Impact on agriculture: • negative as agriculture is a major contributor to economy • damage to/loss of crops will significantly reduce earnings • damage would mean having to import more food/crops to meet the needs of the population which will burden the economy • without agricultural production other economic sectors will be negatively impacted/people will be unable to work • may result in people losing their jobs/many subsistence farmers will have no food or ability to trade • not only the current crop will be affected but the following years will also be affected due to the time taken to clean up the land and re-plant the seeds • replenished rivers and reservoirs can be used as irrigation • farmland can recover naturally as flood waters recede Impact on industry and communications: • industry and communications negatively affected • could cost more to restore factories/roads etc. than farmland • more people can lose their jobs in factories if they are closed • rainstorms cut off power supply which stops production • manufactured products have a higher value than agricultural products which means that there will be potentially greater loss to the economy if industries are affected • if roads/railways are flooded the movement of people/goods and agricultural products will be stopped • businesses/factories can afford to put preventative measures in place to reduce the impacts of flooding	6

Question	Answer	Marks
3(a)(i)	**Study Fig 3.1. (Insert), a map showing natural vegetation types found in southern Pakistan.** **Using Fig 3.1. <u>only</u>, describe the distribution of riverain forest / bela.** • (only) along the River (Indus)/both sides of the river • southern part of River (Indus) • S/SE/E of Pakistan • linear pattern/in a line/in separate blocks/not a continuous line • there are 7 sections of forest • N/NE of Arabian Sea/W of India/E/SE of Iran/SE of Afghanistan • surrounded by tropical thorn/accurate direction from another named vegetation type • runs between latitude 24 °N to 28 °N • along longitude 68 °E (accept 67 °E to 69 °E) • begins (40–60km) inland/doesn't reach the coast • 350–500km length (along the river) 3 @ 1 mark	**3**
3(a)(ii)	**Study Fig. 3.2. (Insert), a photograph showing a type of vegetation found in Pakistan. Identify the type of vegetation shown in the photograph. Circle the correct answer.** mangrove 1 @ 1 mark	**1**
3(a)(iii)	**Using Fig. 3.2. (Insert) <u>only</u>, describe <u>two</u> characteristics of the type of vegetation shown.** • grow in water • roots are long/woody/thick/tangled/gnarled/knobbly 'knees' • roots are above ground/above water surface/exposed • roots spread over a wide area/widespread/spread out • leaves are small/green/thick • leaves are pointing upwards/at the top • trunk(s)/branches are thin/multiple 2 @ 1 mark	**2**
3(b)(i)	**Barrages have been built on many rivers. Name <u>two</u> barrages in Pakistan.** Balloki / Chashma / Ghazi Brotha / Guddu / Islam / Jinnah / Kotri / Khanki / Marala / Mohammadwala / Panjnad / Qadirabad / Rasul / Sinhnai / Sulemanki / Sukkur / Trimmu / Taunsa 2 @ 1 mark	**2**

Question	Answer	Marks
3(b)(ii)	**Suggest how barrages can be useful to farmers.** • can be built on low/flat land/plains/near to farming areas • regulate/control the flow of water in a river/keep river levels stable • provide a <u>reliable/constant</u> supply of water • help to prevent/control flooding • gates are opened to let water into the river • gates are closed to hold water back • help with irrigation/in watering crops/direct water for irrigation/water can be diverted to perennial canals/provide water for livestock 3 @ 1 mark	3
3(c)(i)	**Name <u>two</u> types of fish caught in each of Pakistan's marine waters and inland waters.** marine fish: catfish / croaker / drum / herring / mackerel / pomfret / (sting)ray / sardine / shark / skate / tuna inland fish: carp / catfish / manaseer (mahseer) / palla/rahu (rohu) / trout / thalla (thela/catla) / tilapia 3 or 4 correct = 2 marks 1 or 2 correct = 1 mark	2
3(c)(ii)	**Fish are used for food. State <u>two</u> other uses of fish.** • to sell/for income/to make a profit/for export • oil extraction/fish oil • source of vitamin A and D • to make medicines/cosmetics • (uses of fish waste) e.g. to make fertiliser and poultry feed/livestock fodder/fish glue • to keep as a pet/a hobby/for relaxation 2 @ 1 mark	2

Question	Answer	Marks
3(c)(iii)	**Explain <u>two</u> improvements made in fish processing techniques in Pakistan. You should develop your answer.** • freezers and/or cold storage have been added to fishing boats; so the fish stays fresh if the boats stay longer at sea • cleaning and packaging the fish; improves hygiene and makes it safe for transportation/adding to the value of the products • processing fish into products such as fillets/fish fingers/fish meal for animal feed; is becoming more common and adds value • manual labour is replaced by machines to speed up processing; and helps reach quality control/standardisation • more processing plants have been built/more methods of preserving fish have been introduced; ice factories have been created to chill the fish / drying, curing, salting, canning, irradiating or freezing means fish can be transported to markets further away • canning is used to preserve fish; increasing demand for fish locally and internationally; so they aren't spoiled and keep their flavour • freezers/cold storage facilities have been developed; to ensure that fish is kept fresh before being transported to other parts of the country or exported • improved hygiene standards/sanitation introduced; so that food handlers are working within regulations; workers should be wearing gloves/hair nets **Note:** 1 mark for simple point and a further mark for the development of the point. 1 mark for second simple point and a further mark for development of the second point. **Note:** Max. 2 marks if no development. 2 @ 2 marks	**4**

Question	Answer	Marks
3(d)	**Sustainable fishing means protecting habitats and species of fish, leaving enough for future generations.** **Evaluate the potential for the further sustainable development of the fishing industry 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.** **Levels marking** No valid response **0** **Level 1** **1–2** Simple point referring to one view (1) Simple points referring to any view (2) **Level 2** **3–4** Developed point referring to one view only (3) Developed points referring to both views or developed point and a relevant example (4) **Level 3** **5–6** Developed points referring to both views with evaluation or relevant example (5) Developed points referring to both views with evaluation and relevant example (6) **Content guide** Potential for the further sustainable development of the fishing industry includes: • fishing is passed down through generations, a sustainable skill • modern fishing techniques can be introduced to improve the fish catch without overfishing or harming the environment • protection/replanting of mangroves as they are breeding grounds for fish • reducing water pollution/regulations to control dumping of waste/cleaning up existing pollution/using newer boats which rarely leak oil, etc. • further improvements could be made to fish processing to ensure that canning factories meet international hygiene standards so that more fish can be exported • fish processing could provide employment opportunities • fisheries are the most important economic activity in Gwadar, more than half the workforce is involved	**6**

Question	Answer	Marks
3(d)	Challenges for the further sustainable development of the fishing industry include: • it is already a major industry in coastal areas, less potential to involve more of the population - inland fish farms tend to be small, are subsistence/do not produce much profit • it would be too expensive to implement regulations to ensure canning/processing meets international standards • many fishermen use traditional methods/cannot afford modern methods/machinery/may not be able to access finance e.g. loans • further training/education to adopt sustainable methods • cost of cleaning polluted water/enforcing pollution regulations/controlling damage to mangroves is prohibitively high for individuals/government	

Question	Answer	Marks
4(a)(i)	**Draw a labelled diagram to show how natural gas is extracted.** Credit labels on a diagram. **Note:** Reserve 1 mark for an underground feature. Reserve 1 mark for a drilling rig/derrick feature. Labelled underground features: • rock strata/layers/anticline • impermeable/porous rock • gas (layer or pocket) (above water/oil if labelled) Labelled drilling rig features: • crown block • derrick/rig/frame • travelling block • swivel • standpipe • pipe(s)/kelly • engine/machinery/pump/rotary drive/draw works • blowout prevention equipment • shaft/casing/cement • drill/drilling Alternative (fracking): • fracking/fractures/fissures • water/sand/chemicals • drill/drilling • pipe 4 @ 1 mark	**4**
4(a)(ii)	**State <u>one</u> way natural gas is transported in Pakistan.** Pipelines/pipes Rail/road tankers/cylinders/canisters 1 @ 1 mark	**1**

Question	Answer	Marks
4(a)(iii)	**In 2020 Pakistan had approximately 19 000 000 MMcf of gas reserves and gas consumption was 1 600 000 MMcf per year.** **Calculate how many years of gas reserves Pakistan had at the rate of consumption in 2020. Show your working in the box below.** 19 000 000 / 1 600 000 = 11.875 Accept 11–12 (years) **Note:** 1 mark for working, 1 mark for answer. 2 @ 1 mark	2
4(b)	**Study Fig. 4.1, a diagram showing three types of renewable energy.** **Complete the boxes in Fig. 4.1. by naming each type of renewable energy.** • geothermal • wind • tidal/wave 3 @ 1 mark	3
4(c)(i)	**Study Fig. 4.2. (Insert), a photograph showing a solar farm in Pakistan.** **Using Fig. 4.2. only, describe the features of the solar farm shown.** • flat/plain land • open/vast/wide/huge area/goes on into the distance/as far as the eye can see/massive solar farm • large number (thousands) of panels • in rows/grid pattern/blocks • facing same direction/tilted (toward sun/sky) • roads/paths/spaces in between sections • trucks/vehicles/forklifts • black/blue/grey panels/silver/white borders • rectangular panels/divided into sections • (white) blocks/containers/buildings/office/control room/transformers/inverter/batteries/plant to connect solar cells to the grid	3

Question	Answer	Marks
4(c)(ii)	**Explain how electricity can be generated from solar power. You should develop your answer.** Solar panels: • sun shines onto the solar panel; energy from the sunlight is absorbed by the solar panel • there are (photovoltaic/PV) cells in the solar panel; they convert the solar energy into electricity • the electrical charges move in response to an internal electrical field in the cell; this causes the electricity to flow • the electric current is converted from DC to AC; by an inverter • the current is regulated by a transformer/electricity goes through a transformer; so electricity is at the required voltage Solar furnaces/thermal: • sun shines onto the solar panel/onto giant mirrors; energy from the sunlight is absorbed by the solar panel • panel collects heat from the sun and uses it to heat water; steam from water turns/spins/drives a turbine • the steam spins/turns/drives the generator; the <u>generator</u> produces electricity • the current is regulated by a transformer/electricity goes through a transformer; so electricity is at the required voltage **Note:** 1 mark for simple point and a further mark for the development of the point. 1 mark for second simple point and a further mark for development of the second point. **Note:** Max. 2 marks if no development. 2 @ 2 marks	4
4(c)(iii)	**State <u>two</u> disadvantages of using solar power as a method of generating electricity.** • does not produce power at night/when dark/only works in daylight/daytime • cloud cover may affect it/inconsistent power supply/unreliable • cannot produce enough electricity to meet demand/only produces small amount/need a lot of panels for high amount of power • takes up a lot of space/needs large area • expensive/high cost to buy/installation/manufacturing panels is costly • less efficient when dirty/can get covered in sand/snow 2 @ 1 mark	2

Question	Answer	Marks
4(d)	**Read the following two views about ways of securing sufficient power supplies for Pakistan's future development:** **A Pakistan should import more fossil fuels to secure its future power supplies.** **B Pakistan should develop more renewable energy to secure its future power supplies.** **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 <u>and</u> view B in your answer.** **Levels marking** No valid response **0** **Level 1** **1–2** Simple point referring to one view (1) Simple points referring to any view (2) **Level 2** **3–4** Developed point referring to one view only (3) Developed points referring to both views or developed point and a relevant example (4) **Level 3** **5–6** Developed points referring to both views with evaluation or relevant example (5) Developed points referring to both views with evaluation and relevant example (6) **Content guide** **Note:** Nuclear energy is not a fossil fuel Agree with A / disagree with B because: • Pakistan's fossil fuel sources are running out and without them Pakistan will be energy insecure • fossil fuels are cheaper to import than to pay to produce more renewable energy sources (or named examples, e.g. hydel/HEP) • fossil fuels are more reliable than depending on renewable energy sources • it will help further Pakistan's relations with other countries if trade partnerships can be developed • equipment/technology for developing renewables has to be imported and incurs high costs	**6**

Question	Answer	Marks
4(d)	Agree with B / disagree with A because: • Pakistan will not be reliant on other countries for their source of fuel • renewable energy is sustainable it will provide a secure power supply for the future • renewable energy is cost efficient – once the outlay for developing it the energy produced is virtually free apart from maintenance costs • fossil fuels are running out globally so alternative sources of energy are needed • it is better to invest in renewables now rather than wait until fossil fuels run out • the cost of importing fossil fuels can fluctuate which could cause debt	

Question	Answer	Marks
5(a)(i)	**Define 'tertiary industry'.** service industry / provides (a) service(s) 1 @ 1 mark	**1**
5(a)(ii)	**State <u>two</u> job types found in the formal sector and the informal sector of the tourism industry.** Formal sector: taxi driver/bus driver/driver/pilot/hotel worker/waitress/waiter/tour guide/security guard, etc. Informal sector: street vendor/hawker/food vendor/shoe shiner/car cleaner/handicrafts seller/street performer, etc. **Note:** Some jobs may occur in both sectors, credit each job once only 4 @ 1 mark	**4**
5(a)(iii)	**Describe <u>two</u> disadvantages of working in the informal sector.** • low pay/no regular income/unreliable income/less income • no contract/no job security/can be dismissed at any time • lack of (safety) regulations/poor working conditions • long hours/irregular hours/antisocial hours • could get moved on/illegal • limited worker's rights/no sick pay/holiday pay/pension benefit/ unregistered • sometimes includes child labour/loss of education 2 @ 1 mark	**2**

Question	Answer	Marks
5(b)	**Study Fig. 5.1., a divided bar graph showing the international tourism revenue for different world regions in 2017 as a percentage of the world total.** **Using Fig 5.1. only:** • **which region had the highest percentage of the world total?** • **which region accounted for 3% of the world total?** • **what percentage of the world total was accounted for by the Asia-Pacific region?** • Europe • Africa • 30% (tolerance accept 28–32%) 3 @ 1 mark	3
5(c)(i)	**Study Fig. 5.2. (Insert), a photograph showing a tourist attraction in Pakistan.** **Describe two attractions to tourists of the area shown.** • waterfalls/river/stream to look at/listen to/to sit in/to paddle • picnic benches/tables areas to sit/to eat and drink/to chat • café/shop to buy food/drink/souvenirs • steep slopes/hill/mountain/valley to hike/walk • trees/woodland/forest/vegetation to watch birds/to enjoy • picturesque scenery/peaceful setting/scenic beauty to photograph/to relax • description may be detail of the named attraction(s) 2 @ 1 mark	2

Question	Answer	Marks
5(c)(ii)	**Name and describe three cultural attractions of Pakistan.** • museums e.g. History/Lok Virsa Islamabad • archaeological sites e.g. ruins/Mohenjo-daro, Harappa, and Taxila • historic sites e.g. fort/gardens/monument/Fort of Baltit, Shahi Qila Lahore, Mazar-e-Quaid (Mausoleum of Mohammad Ali Jinnah), Shalimar Gardens Lahore • religious sites/festivals e.g. Eid, mosque/mashjid e.g. Faisal Mosque, Badshadi Mosque • modern buildings/structures e.g. palace/parliament/Minar-e-Pakistan Lahore • stadia/sports events e.g. cricket/polo/Shandur Polo Festival/cricket stadiums e.g. Gaddafi stadium Lahore • salt mines e.g. in Punjab/Khewra (souvenirs e.g. lamps) • traditional crafts/craft bazaars e.g. in Peshawar/Multan • traditional foods/food markets/restaurants e.g. Anarkali in Lahore • communities e.g. Kalasha/Ismaili peoples, traditional dress/customs/dancing/festivals e.g.in Chitral/Hunza Valley **Note:** Candidates should state examples with some detail to describe them e.g. where or what they are. **Note:** A list of generic attraction types e.g. museum, historic site, salt mine = 1 mark. A list of named attractions = 0 marks. 3 @ 1 mark	3

Question	Answer	Marks
5(c)(iii)	**Explain the importance of television and the internet to Pakistan's tourist industry. You should develop your answer.** • helps Pakistan on a global scale; can compete with other countries in the international market • TV/internet provides a way for companies/government to run promotion campaigns/advertise images and information about a place; can increase revenue and GDP from tourism • improves image of Pakistan abroad; people will see/find out about its safe environment • individuals can use internet/social media/apps to produce content about attractions/to reach a wide audience; people will want to visit the place/creates demand/increases potential tourist numbers • internet can provide online tools for tourists e.g. Google Maps/apps/social media; these help in planning your visit/ booking hotels/finding attractions/reading reviews • can advertise jobs; provides/attracts a wider variety of potential employees • internet/social media advertising is cheaper than traditional methods; which saves tourism companies money/ they could afford more advertising/ reach a wider audience/reduces need for travel agent offices • tourists want/expect to have TVs and mobile internet/wi-fi in their hotel rooms/need internet to communicate; otherwise they won't visit/will go elsewhere **Note:** 1 mark for simple point and a further mark for the development of the point. 1 mark for second simple point and a further mark for development of the second point. **Note:** Max. 2 marks if no development. 2 @ 2 marks	**4**

Question	Answer	Marks
5(d)	**To what extent is developing new transport systems the most effective way to further develop the tourist industry 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.** **Levels marking** No valid response **0** **Level 1** **1–2** Simple point referring to one view (1) Simple points referring to any view (2) **Level 2** **3–4** Developed point referring to one view only (3) Developed points referring to both views or developed point and a relevant example (4) **Level 3** **5–6** Developed points referring to both views with evaluation or relevant example (5) Developed points referring to both views with evaluation and relevant example (6) **Content guide** **Developing new transport systems is the most effective way because:** • if all parts of Pakistan are accessible by different modes of transport, then more people are likely to visit Pakistan • domestic tourists will also be able to visit parts of Pakistan that they may not have been able to access previously • if motorways are developed/increased then hotels and tourist related services can be developed along them • providing an integrated transport system will encourage people to travel further afield within Pakistan • more/new modern international airports in all major cities of Pakistan will encourage international tourists to all parts of the country **Other ways may be more effective because:** • improving other infrastructure will enable more tourists and thereby the tourist industry e.g. regular and reliable electricity supply/water/ sanitation etc. • more new/modern hotels/restaurants/cafes/shops etc. in all parts of Pakistan would help to further develop the tourist sector • training employees in the tourist/service sectors will ensure that they meet international standards • marketing is more important as many people may be unaware of the natural and/or human attractions of Pakistan	**6**