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MARK SCHEME

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Question	Answer	Marks
1(a)(i)	A Crops grown for own consumption/use/for the farmer and his family/use it for themselves; B Crops grown for sale/export/income/profit/grown commercially. 2 @ 1 mark	2
1(a)(ii)	Subsistence: Rice/vegetables/wheat; Cash: Rice/sugar cane/oilseeds/cotton/wheat. 2 @ 1 mark	2
1(a)(iii)	<p><u>Advantages</u></p> <ul style="list-style-type: none"> • Yields increased/increased output/higher yields; • Allows double/multi-cropping/can use smaller/less land so more productive/crops grow faster/faster growth; • Increased income/can sell surplus for profit/higher profits; • Consistent quality of crops/better quality/healthy growth; • Meets requirements of international standards; • Protects against/more resistant to pests; • Protects against/more resistant to disease; • HYV crops, shorter/stronger and can withstand strong winds (therefore less damage); • Drought resistant. <p><u>Disadvantages</u></p> <ul style="list-style-type: none"> • Seeds have to be bought every year/cannot sow seeds produced from crops grown; • Exhausts soil/can cause soil to lose its fertility/soil infertile; • Expensive/poor farmers cannot afford them; • Extra named input required, e.g. water/fertilisers; • Not seen as a healthy crop/artificial/genetically modified; • Lowers species diversity; • Shortfall in skills/knowledge to use them/needs training. <p>Note: Reserve one mark for each of advantage and disadvantage. 4 @ 1 mark</p>	4
1(b)(i)	A 27% (allow 26–28%) B Sindh 2 @ 1 mark	2

Question	Answer	Marks
1(b)(ii)	<ul style="list-style-type: none"> • Balochistan increases and Punjab decreases; • When population growth is higher in Balochistan it is lower in Punjab and vice versa; • Balochistan falls in 81–98 then rises in 98–11/moves from lower growth to higher growth whereas Punjab rises in 81–98 then falls in 98–11/moves from higher growth to lower growth; • Balochistan lowest in 81–98 whereas Punjab highest in 81–98; • Balochistan higher in 98–11 than 72–81/overall increase in growth: Punjab lower in 98–11 than 72–81/overall decrease in growth; • Balochistan higher than Punjab in 72–81/98–11/Punjab higher than Balochistan in 81–98; • Balochistan has a growth rate of more than 50% whereas Punjab has 25–55%. <p>Note: any one correct statement.</p> <p>Can accept converse.</p> <p style="text-align: right;">1 @ 1 mark</p>	1

Question	Answer	Marks
1(b)(iii)	<p>Economic factors:</p> <ul style="list-style-type: none"> • Children are an important part of the labour force (children needed to work on the land); • Desire for sons (as an insurance policy in old age/ill health); • Increase in food production (due to better farming methods); • Better transportation system (to move doctors/food to where it is needed most); • Cannot afford contraceptives. <p>Social factors:</p> <ul style="list-style-type: none"> • Early marriage/multiple marriages (increases the span for reproductivity); • Limited acceptance of birth control/lack of family planning clinics/education about family planning; • Religious beliefs (Allah gives Rizq/believe holy prophet wanted the nation to increase in size); • Large families seen as a matter of pride/desire for large families; • Low levels of literacy/lack of education (people are not educated about the pitfalls of large families/women are illiterate); • Lack of contraceptives/access to contraceptives/knowledge of contraceptives; • People living longer/higher life expectancy/ageing population. <p>Political factors:</p> <ul style="list-style-type: none"> • Increased availability of healthcare/medical facilities, (e.g. vaccinations/more hospitals/numbers of doctors/ use of antibiotics/other life-saving drugs); • Decrease in child mortality (due to improvements in the quality of medical facilities and/or access to them); • Death rates have decreased (due to control of diseases, e.g. malaria or other named disease/due to modern health facilities); • Improvement in sanitation/water supply (reducing spread of diseases like typhoid/cholera or other named disease); • Change in governments (hinders implementation of population welfare programmes to reduce population growth); • The hosting of large numbers of Afghan refugees/more people moving to Pakistan from neighbouring countries/immigration <p>ETC.</p> <p>Note: One mark for identification of appropriate idea and a further mark for development (in parentheses).</p> <p>Note: Max 2 marks if no development.</p> <p style="text-align: right;">2 @ 2 marks</p>	4

Question	Answer	Marks
1(c)(i)	<ul style="list-style-type: none"> Nomadic herdsmen/farming/nomadism/have to keep on moving/transhumance/need to move constantly/moves from high to lowland for winter and in summer move back; Herds/flocks of animals/taking care of animals/livestock/sheep/goats/grazing/pasture/water. <p>Note: Reserve 1 mark for type of farming a further mark is for description. 1 @ 2 marks</p>	2
1(c)(ii)	<ul style="list-style-type: none"> Kept singly for domestic use; Can be kept in urban areas/on the edge of urban areas; Kept in sheds/small yards; Need to remain in water/need large amounts of water/where water is available/need to be kept near water/near rivers/marshy land; Kept in canal/irrigated areas of Sindh/Punjab; Buffalo are kept in one place/settled livestock/requires a permanent settlement. <p>1 @ 2 marks</p>	2

Question	Answer	Marks
1(d)	<p>Levels marking</p> <p><u>Level 1</u> (1–2 marks) Simple point addressing any view (1). Simple points addressing any view (2).</p> <p><u>Level 2</u> (3–4 marks) Developed point(s) explaining one view (3). Developed point(s) explaining both views (4). No evaluation.</p> <p><u>Level 3</u> (5–6 marks) Developed points explaining both views. Evaluation giving clear support to one view or a named example (5). Developed points explaining both views. Evaluation giving clear support to one view and a named example (6).</p> <p><u>Content Guide:</u></p> <p>Answers are likely to refer to:</p> <p><u>For livestock</u></p> <ul style="list-style-type: none"> • Large multi-national farms • Bigger source of protein • Source of milk/ghee/meat • Sheep/goats can survive on marginal land <p><u>Against livestock</u></p> <ul style="list-style-type: none"> • Insufficient land for fodder crops • Inadequate storage facilities • Lack of grazing land • Overgrazing • Lack of funds • Unhygienic husbandry <p><u>For food crops</u></p> <ul style="list-style-type: none"> • More land can grow food for people • Well-developed irrigation • Multi-cropping • Access to fertilisers/pesticides, etc. <p><u>Against food crops</u></p> <ul style="list-style-type: none"> • Mismanagement • Overuse • Of water/seepage from canals • Over-cultivation <p>ETC.</p>	6

Question	Answer	Marks
2(a)(i)	First radial line at 0% and second at 73% (allow 72–74%) Correctly shaded using key 2 @ 1 mark	2
2(a)(ii)	1998–99 = 56% 2013–14 = 73% 73 – 56 = 17 (% increase) (allow 14–20) 1 @ 1 mark	1
2(a)(iii)	<ul style="list-style-type: none"> • Quicker/faster connection/more direct routes/saves time; • Cities/towns/rural areas will be better connected/connect remote areas; • Faster supply/delivery of raw materials/finished goods/exports/imports/trade will be more efficient/quicker trade routes; • Promote industrial growth/industrialisation/industries will develop/build industrial estates along route; • To relieve pressure on existing roads; • Create employment opportunities/attract foreign investment; • To connect to Afghanistan and Central Asian Republic/or other named countries; • Establish new settlements along the route; • Increase development of tourism. 2 @ 1 mark	2
2(a)(iv)	<ul style="list-style-type: none"> • Rugged/hilly/undulating/sandy terrain (increases construction cost)/(due to extra bridges/cuttings/ embankments/extra length to curve around features); • Extreme aridity/heat/hot/high temperatures/sand/dust storms (making difficult working conditions for construction workers)/(causing dehydration/heat-related illnesses of workers/workers might find it exhausting/traffic can be hampered due to sand storms); • Remote/uninhabited/low population density areas (increasing cost of transporting/housing workers/so not cost effective)/(meaning a shortage of local labour); • Lack of government investment/government funding; • Opposition from tribal areas; • Lack of security/insurgency; • Lack of water; • High construction costs. <p>ETC.</p> <p>Note: One mark for identification of appropriate idea and a further mark for development (in parentheses).</p> <p>Note: Max 2 marks if no development.</p> 2 @ 2 marks	4

Question	Answer	Marks
2(b)(i)	<ul style="list-style-type: none"> • Mixing clay with water; • Placing mixture into rectangular moulds/mould the clay/moulded into brick shape/cuboid shape/put into stencils/blocks; • Leaving to dry <u>in sunlight</u>; • Firing/baking in kilns/furnace/heated in kilns to harden them/baked/heated in a furnace. <p>Note: Processes do not have to be in the correct order.</p> <p>3 @ 1 mark</p>	3
2(b)(ii)	<ul style="list-style-type: none"> • Harvesting/cutting; • Collecting in bales/bundling together/stacking/tying them; • Laborious/carrying/lifting/picking up; • Manual work/done by hand. <p>2 @ 1 mark</p>	2
2(c)(i)	<ul style="list-style-type: none"> • High salary/salaries higher/more work-related benefits/promotion available/handsome salaries; • Salaries more regular/stable/livelihood less at risk/fixed wages; • Better working conditions/examples, e.g. AC/more likely to be indoors/offices/factories; • Less likely to be manual/more likely to be higher skilled; • Perceived abundance of work available/wider variety of jobs/more job opportunities; • Fixed/regular hours/year round/contract. <p>2 @ 1 mark</p>	2
2(c)(ii)	<ul style="list-style-type: none"> • Higher/better education/better/more schools/universities/ colleges; • More/better hospitals/greater access to healthcare; • Better housing/or examples, e.g. brick built housing; • Named better infrastructure transport/roads/railways; • Better/more regular supply of electricity/gas; • Improved/better sanitation/sewage systems; • Piped/clean/drinking/regular supply/potable water; • More entertainment/recreation/leisure facilities or named examples, e.g. cinema; • Variety of shops/shopping malls; • Reliable access to food/more food available/more regular food supply; • Bright lights/glamorous lifestyle. <p>3 @ 1 mark</p>	3

Question	Answer	Marks
2(d)	<p>Levels marking</p> <p><u>Level 1</u> (1–2 marks) Simple point addressing either a problem or benefit (1). Simple points addressing either problems or benefits or both (2).</p> <p><u>Level 2</u> (3–4 marks) Developed point(s) explaining either problems or benefits (3). Developed point(s) explaining both problems and benefits (4). No evaluation.</p> <p><u>Level 3</u> (5–6 marks) Developed points explaining both problems and benefits. Evaluation giving clear support to problems or benefits or a named example (5). Developed points explaining both problems and benefits. Evaluation giving clear support to problems or benefits and a named example (6).</p> <p><u>Content Guide:</u></p> <p>Answers are likely to refer to:</p> <p><u>Benefits</u></p> <ul style="list-style-type: none"> • Employment opportunities • Improvements to roads/other infrastructure • New settlements • Educational/recreational facilities • More trade for local shops • More work for local ancillary/related industries <p><u>Problems</u></p> <ul style="list-style-type: none"> • Farmland/grazing • Air pollution/dust from chimneys, etc. • Visual pollution/eyesore • Roads/railways congested • Attracts migrants • Uses large amounts of water/power <p>ETC.</p> <p>Note: Answers must relate to local people not the nation.</p>	6

Question	Answer	Marks
3(a)(i)	China / UAE 1 @ 1 mark	1
3(a)(ii)	<p><u>Imports</u></p> <ul style="list-style-type: none"> China/India – regional superpower/strong economy/neighbouring country/has land links; China/India – source of capital/manufactured goods/ technological goods/import machinery; UAE/Kuwait/Saudi Arabia – source of oil; Malaysia – source of palm oil; India – source of primary commodities, e.g. fruit and vegetables. <p><u>Exports</u></p> <ul style="list-style-type: none"> Any named country – increased sales/markets/market share/enlarge market share; China/Afghanistan – neighbouring countries with land links; Afghanistan – foodstuffs such as rice, sugar; China – to maintain relations/political ties with regional superpower; UAE – nearby country via sea/Arabian Sea/Makran Coast; USA/Germany/UK – developed economies raw materials, e.g. cotton yarn/woven cloth or manufactured goods, e.g. sports goods, linen, suits. <p>Note: Country must be named plus import or export.</p> <p>Note: No additional products or countries allowed.</p> <p>3 @ 1 mark</p>	3
3(b)(i)	<ul style="list-style-type: none"> Lower/S Sindh/Lakhra/Jhimpir/Sonda/Thar/Thar desert; N/NW Balochistan/Quetta/Sor/Mach/Degari/Khost/Shahrig/Harnal/Duki/Chamalang; Salt Range/Dandot Pidh/Potwar plateau; Makerwal. <p>2 @ 1 mark</p>	2
3(b)(ii)	<p>A Bar accurately drawn on Fig. 4</p> <p>B 2005</p> <p>C Decreased</p> <p>Note: Width within demarcations and height must touch the 3m line.</p> <p>3 @ 1 mark</p>	3

Question	Answer	Marks
3(b)(iii)	<ul style="list-style-type: none"> Existing coalfields becoming exhausted/existing coal measures becoming harder to access (therefore increasing cost of extraction); High cost of extraction/exploration/equipment/ technology (leads to indebtedness); Lack of government funding (which a developing country with high population growth cannot afford); Lack of/poor transport links to/from coal producing areas/potential coal producing areas (which discourages further investment); Lack of skilled/highly trained labour (therefore requiring expensive foreign expertise); Insurgency/lack of security (which discourages foreign mining companies from operating/investing); Decreased demand for fossil fuels/change to cleaner fuels/renewables (due to world agreements/targets); Coal from Pakistan is low grade (so has to be imported from other countries); Domestically replacing coal with gas (as Pakistan has many gas fields, e.g. at Sui/one of largest in world); Change from coal to oil/diesel for trains (due to partition). <p>ETC.</p> <p>Note: One mark for identification of appropriate idea and a further mark for development (in parentheses).</p> <p>Note: Max 2 marks if no development.</p> <p style="text-align: right;">2 @ 2 marks</p>	4
3(c)(i)	<p>The difference between the <u>value</u> of goods imported and exported by a country/the <u>value</u> of imports subtracted from exports/the <u>value</u> of exports minus imports.</p> <p style="text-align: right;">1 @ 1 mark</p>	1
3(c)(ii)	<ul style="list-style-type: none"> Value of goods imported is more than the value of goods exported; Uncompetitive quality/low quality of exports; Unable to fulfil domestic needs of population; Import tariffs/quotas in other countries; Dependency on import of capital goods/machinery/ oil/high value added goods; Dependency on importing/exporting agricultural products/food/named examples; Depreciating own currency/rupee against dollar; Trade embargoes imposed by other countries. <p style="text-align: right;">3 @ 1 mark</p>	3

Question	Answer	Marks
3(c)(iii)	<ul style="list-style-type: none"> • Foreign debt; • Dependence on foreign aid; • Need to use country's cash reserves/assets/loss of foreign exchange; • Development projects cancelled/delayed; • Rise in taxation; • Strategies to increase exports/high value exports/ Government encourages local industry to export; • Country's currency depreciates, so imports become expensive. <p>2 @ 1 mark</p>	2
3(d)	<p>Levels marking</p> <p><u>Level 1</u> (1–2 marks) Simple point addressing any view (1). Simple points addressing any views (2).</p> <p><u>Level 2</u> (3–4 marks) Developed point(s) explaining one view (3). Developed point(s) explaining different points of view (4). No evaluation.</p> <p>Note: Max 3 for explanations for and against one view only.</p> <p><u>Level 3</u> (5–6 marks) Developed points explaining different points of view. Evaluation giving clear support to preferred view or a named example (5). Developed points explaining different points of view. Evaluation giving clear support to preferred view and a named example (6).</p> <p><u>Content Guide:</u></p> <p>Answers are likely to refer to:</p> <p><u>Great improvement</u></p> <ul style="list-style-type: none"> • Creates many employment opportunities • Examples of employment opportunities • Better paid jobs in tertiary sector • Improved working conditions <p><u>Small improvement/no improvement</u></p> <ul style="list-style-type: none"> • Creates relatively few employment opportunities • Reasons why • Lack of education/skills • Cost of computers • Less demand from developed countries • Poor electricity infrastructure/load shedding • Can be long working hours <p>ETC.</p>	6

Question	Answer	Marks																
4(a)(i)	Any three of (L to R): canal, aquifer, water table, maintenance shaft, tunnel <div>3 @ 1 mark</div>	3																
4(a)(ii)	<table><tr><td>Barrage</td><td>River</td></tr><tr><td>Marala/Khanki/Qadirabad</td><td>Chenab</td></tr><tr><td>Jinnah/Chashma/Taunsa/Guddu/Sukkur/Kotri</td><td>Indus</td></tr><tr><td>Rasul/Trimmu</td><td>Jhelum</td></tr><tr><td>Panjnad</td><td>Panjnad</td></tr><tr><td>Balloki/Sidhnai</td><td>Ravi</td></tr><tr><td>Islam/Sulaimanke</td><td>Sutlej</td></tr><tr><td>Munda</td><td>Swat</td></tr></table> <div>Note: Named dams not allowed</div> <div>2 @ 1 mark</div>	Barrage	River	Marala/Khanki/Qadirabad	Chenab	Jinnah/Chashma/Taunsa/Guddu/Sukkur/Kotri	Indus	Rasul/Trimmu	Jhelum	Panjnad	Panjnad	Balloki/Sidhnai	Ravi	Islam/Sulaimanke	Sutlej	Munda	Swat	2
Barrage	River																	
Marala/Khanki/Qadirabad	Chenab																	
Jinnah/Chashma/Taunsa/Guddu/Sukkur/Kotri	Indus																	
Rasul/Trimmu	Jhelum																	
Panjnad	Panjnad																	
Balloki/Sidhnai	Ravi																	
Islam/Sulaimanke	Sutlej																	
Munda	Swat																	
4(a)(iii)	<ul style="list-style-type: none">Irrigation/release water for irrigation;Provide water supply to perennial canals/link canals;Flood control;Flow of water controlled;To stimulate economic development/industry/settlement. <div>2 @ 1 mark</div>	2																
4(b)(i)	<ul style="list-style-type: none">Smoke/fumes/gases/named gases/harmful gases <u>from</u> factories/tanneries/industries/chimneys/power stations;Smoke/fumes/gases/named gases <u>from</u> vehicle exhausts;Burning fossil fuels;Clearing forests by burning;Release of gases/methane from livestock/rice/paddy fields/landfill;Burning domestic rubbish/incineration;Air pollution/dust from mineral extraction/mining/ quarrying. <div>2 @ 1 mark</div>	2																

Question	Answer	Marks
4(b)(ii)	<ul style="list-style-type: none"> • Cause pollution of rivers/watercourses (runoff from farmland containing chemicals washes into them); • Pollution of groundwater (from infiltration eventually entering rivers, polluting them); • Eutrophication in rivers (nitrates/phosphates cause algal blooms which increase CO₂/reduce O₂)/(killing fish/aquatic animals/destroy aquatic life); • Causes ecosystem to be unbalanced (through loss/ extinction of species) (through disruption to food chains/ food webs); • Overuse of fertilisers (damages soil/makes soil infertile/ poisons/damages natural vegetation). <p>ETC.</p> <p>Note: One mark for identification of appropriate idea and a further mark for development (in parentheses).</p> <p>Note: Max 2 marks if no development.</p> <p>2 @ 2 marks</p>	4
4(c)(i)	<p>A Domestic</p> <p>B 94% (allow 93–95%)</p> <p>2 @ 1 mark</p>	2
4(c)(ii)	<p>One of:</p> <p>Beverages/soft drinks/juice industry/dyeing/tanning/printing/iron/steel/nuclear/textiles/chemical/pharmaceutical/hydel/HEP/paper/tourism/leisure/inland fish farms.</p> <p>1 @ 1 mark</p>	1
4(c)(iii)	<ul style="list-style-type: none"> • Seepage from beds of canals/absorbed into the soil/land/no canal lining; • Evaporation/evapotranspiration from surface of canals/tanks/flooded land; • Excessive runoff of water immediately into streams/rivers; • Theft of water/theft from canals; • Water drawn up by vegetation on side of canal; • Mismanagement. <p>3 @ 1 mark</p>	3

Question	Answer	Marks
4(d)	<p>Levels marking</p> <p><u>Level 1</u> (1–2 marks) Simple point addressing any view (1). Simple points addressing any view (2).</p> <p><u>Level 2</u> (3–4 marks) Developed point(s) explaining one view (3). Developed point(s) explaining views (4). No evaluation.</p> <p><u>Level 3</u> (5–6 marks) Developed points explaining both views. Evaluation giving clear support to one view or a named example (5). Developed points explaining both views. Evaluation giving clear support to one view and a named example (6).</p> <p><u>Content Guide:</u></p> <p>Answers are likely to refer to:</p> <p><u>For infrastructure</u></p> <ul style="list-style-type: none"> • Prevents loss of water downstream into sea • Collects rainfall/snowmelt • Reservoirs feed perennial canals • Can store large amounts of water <p><u>Against infrastructure</u></p> <ul style="list-style-type: none"> • Source of conflict between countries and provinces • Social issues • Loss of fresh water at Indus Delta • Water intrusion into Sindh • High initial investment • Little use in Balochistan where rivers dry up • Mismanagement by provincial/national government • Siltation occurs <p><u>For water saving</u></p> <ul style="list-style-type: none"> • Planting trees • Lining canals • Careful monitoring/regulation of amount of water used • Better forms of water storage in homes • Water meters in homes/industries <p><u>Against water saving</u></p> <ul style="list-style-type: none"> • Long time scale required to educate sufficient number of people • Resistance to education • Water a valuable raw material in industry • Growing population with increasing demand for drinking water • Development goal to increase availability of water <p>ETC.</p>	6

Question	Answer	Marks
5(a)(i)	<ul style="list-style-type: none"> • Morgah/Rawalpind – close to oilfields (in Potwar Plateau); • Central Punjab – close to oilfield; • Karachi/Korangi – near oil terminals/close to oilfield/port; • Mahmood Kot/Muzaffargarh – terminus of crude oil pipeline from Karachi. <p>Note: No credit for reason only</p> <p>2 @ 1 mark</p>	2
5(a)(ii)	<p>Bar correctly drawn on Fig. 4</p> <p>Note: Tolerance: imported 180–190, produced 55–65.</p> <p>1 @ 1 mark</p>	1
5(a)(iii)	<p>The amount of oil imported increased/higher/rose/figures from 150 to 370–380;</p> <p>The amount of oil produced decreased/fallen/figures from 60–70 to 55–65/almost constant/stayed the same;</p> <p>The total amount of oil increased/overall it went from 210–220 to 430–440.</p> <p>Note: a tolerance of $\pm 5\%$ allowed except at 150 value.</p> <p>2 @ 1 mark</p>	2
5(a)(iv)	<ul style="list-style-type: none"> • Small reserves/potential oilfields not explored/small amount produced; • Lack of government investment/funding for further exploration/lack of money for developing oil fields/ exploration/expensive equipment; • Lack of technology/expertise for extraction/exploration/ lack of skilled labour; • (Large/increasing demand for) oil for vehicles/transport; • Heating/domestic use/cooking; • Electricity generation/electricity; • Manufacturing/manufactured products; • Cannot exploit/explore reserves due to tribal opposition/ insurgency; • Due to population growth. <p>2 @ 1 mark</p>	2
5(b)(i)	<p>A Positive correlation/as population increases, electricity production increases/both increasing/population is always higher/more than electricity production (or vice versa);</p> <p>B Population increases: electricity production remains same/very slightly increases/population kept increasing/ electricity did not have much change.</p> <p>2 @ 1 mark</p>	2

Question	Answer	Marks
5(b)(ii)	<ul style="list-style-type: none"> • Population increasing (greater need/greater use of electricity in homes/businesses) (named example of new technology in home/business)/(new towns have to be built because growing population puts a burden on electricity); • Increased affluence for some (enables more electrical appliances in the home or named examples/items are becoming more affordable); • Little new investment in new power stations (foreign investors less willing to invest due to political instability) (other government priorities such as healthcare/ education/housing/transport/alleviating poverty); • Pakistan has small/inaccessible/depleting fossil fuel reserves (fossil fuels expensive to extract/poor quality/ have to import); • Renewable energy plants expensive to construct; • Power losses due to old/long transmission lines; • Power theft (people diverting existing power sources for their own use); • Most people live in rural areas (<u>electricity</u> does not reach there/lack of infrastructure/power lines); • Many power plants are not working to full capacity (as a result of siltation in dams and reservoirs)/(they are still under construction); • Power breaks down (lack of expertise to handle it)/(due to old machinery); • More rural to urban migration (means demand cannot be fulfilled); • Seasonal variations (less HEP generation in winter as less rainfall/snowmelt at times of peak demand). <p>ETC.</p> <p>Note: One mark for identification of appropriate idea and a further mark for development (in parentheses).</p> <p>Note: Max 2 marks if no development.</p> <p style="text-align: right;">2 @ 2 marks</p>	4
5(c)(i)	<p>Rectangular, solar <u>panels</u> are made up of many solar <u>cells</u> which convert the <u>light</u> energy from the sun into electrical energy. They can be placed on the <u>roofs</u> of houses and other buildings. Large arrays of solar panels can be sited on the ground, for example, in deserts. Solar panels should face <u>south</u> in order to collect as much of the sun's energy as possible. Other solar power systems use the sun to heat water and the <u>steam</u> is then used to turn a turbine.</p> <p style="text-align: right;">5 or 6 @ 3 marks 3 or 4 @ 2 marks 1 or 2 @1 mark</p>	3

Question	Answer	Marks
5(c)(ii)	<ul style="list-style-type: none">• Expensive technology/expensive investment for government;• Small scale/only generates small amounts of electricity;• Only at coastal sites;• Hazardous to marine life/damages habitats;• Disruption to shipping/fishing areas;• Difficult to set up/inadequate technology;• Not enough output to meet demand;• Can be damaged or disrupted by cyclones or tsunamis;• Shortage of expertise/knowledge/skills to set up. <p>3 @ 1 mark</p>	3

Question	Answer	Marks
5(d)	<p>Levels marking</p> <p><u>Level 1</u> (1–2 marks) Simple point addressing any view (1). Simple points addressing any view (2).</p> <p><u>Level 2</u> (3–4 marks) Developed point(s) explaining one view (3). Developed point(s) explaining both views (4). No evaluation.</p> <p><u>Level 3</u> (5–6 marks) Developed points explaining both views. Evaluation giving clear support to one view or a named example (5). Developed points explaining both views. Evaluation giving clear support to one view and a named example (6).</p> <p><u>Content Guide:</u></p> <p>Answers are likely to refer to:</p> <p><u>For large-scale</u></p> <ul style="list-style-type: none"> • Funding available from China • Provide very large amounts of power from small amount of uranium • Large coal reserves <p><u>Against large-scale</u></p> <ul style="list-style-type: none"> • Large sums of money/loans needed • Problems with disposing of/reprocessing/storing waste • Danger of insurgency threat/accident • Danger of flooding • Coal extracted in Pakistan is poor quality for power generation • Oil expensive to import • Large coal reserves not exploited • Fossil fuel reserves are depleting • Political issues between provinces with the construction of multi-purpose dams over division of water <p><u>For small-scale</u></p> <ul style="list-style-type: none"> • Lower cost to maintain • Renewable resources do not deplete • Renewable resources do not pollute the environment • Biogas – cheap source of energy • Wind – available land in Balochistan highlands • Solar – many parts of Pakistan experience 250–300 sunny days per year <p><u>Against small-scale</u></p> <ul style="list-style-type: none"> • Do not contribute/only small amount to national grid • Renewables only generate small amount of energy • Wind/solar have high construction cost • Wind is considered unsightly/harms wildlife • Not constantly producing energy • Biogas decreases availability of manure for organic fertiliser <p>ETC.</p>	6