

SPECIMEN MARKING SCHEME

0449/02

Environment and Development of Bangladesh

This specimen marking scheme is neither exhaustive nor prescriptive. It is an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners award marks. It only provides notes and does not give detailed sample answers. It does not indicate the details of the discussions that take place at an Examiners' meeting before marking begins; it would be amended at this meeting prior to marking the candidates' scripts.

All Examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

1. (a) (i) highland area
highest in the south-east
highest peak – 898 metres
steep slopes
in the west – rounded foothills
ravines/valleys
main river – Karnaphuli
waterfalls
trellis drainage pattern in the east
5 at 1 mark [5]
- (ii) suitable relief – steep-sided valleys
valley dammed – Lake Kaptai - many rivers feed into it
high rainfall
2 at 1 mark [2]
- (iii) B – Tista River
C – Padma River [2]
- (b) deposition
heavy load carried by river
river's speed checked as it enters the sea
shallow water
no currents/strong tides
sheltered/calm sea
salt water causes fine mud to coagulate
deposition along tributaries
distributaries
advances seaward
- For full marks there must be a labelled diagram. If there is text – mark the diagram first then the text, but no double marking.
6 at 1 mark [6]
- (c) (i) Deforestation in the Himalayas
less interception – more surface run-off
soil erosion – silting
heavy rainfall – rapid surface run-off
high water table
snow melt in the Himalayas
5 at 1 mark [5]
- (ii) No mark for 'not effective/very effective'. Need reasons.
Flood Action Plan – international organisation
embankments – allow elaboration – change environment, less silt, water logging
canals and channels
sluice gates
barrages
dams in India - Farraka
5 at 1 mark [5]
- Total 25 marks**

2. (a) (i) 530 mm [1]
- (ii) seasonal
 high March to October
 heaviest July and August
 no rain/drought January to March
 very little April, November and December
 3 at 1 mark [3]
- (iii) range of 8°C
 high temperature
 uniform May to November
 highest in April
 3 at 1 mark [3]
- (b) (i) seasonal winds that bring heavy rainfall [2]
- (ii) high pressure over Australia
 low pressure over Indian sub-continent because of high temperatures
 winds blow from high pressure to low pressure
 winds blow across Indian Ocean – moisture laden
 5 at 1 mark [5]
- (c) crops die
 livestock die
 lack of food/starvation
 malnutrition
 lack of income
 poor harvest
 4 at 1 mark [4]
- (d) increased use of groundwater
 iron and manganese compounds dissolve
 increased irrigation caused aquifers to drop – compounds exposed to oxygen and release arsenic
 percolate into water table during monsoon season
 poisons body – cancer of skin, lungs, bladder, kidneys
 changes skin pigmentation and thickens - gangrene
 kidney and liver problems
 breathing problems
 Allow elaboration
 7 at 1 mark [7]
- Total 25 marks**

3. (a) subsistence – used by farmer and family
 little surplus for sale
 commercial – grow to sell – income for farmer
 2 at 1 mark [2]
- (b) Flat, low-lying land
 alluvial soils – from flooding of rivers
 water retaining soils
 temperatures 16°C – 27°C
 rainfall high – 1000 to 3000 mm
 5 at 1 mark [5]
- (c) (i) production – increased
 steady at first/1994 to 1998
 highest increase after 1999
 acreage remained steady
 only slight increase
 decreased 1998 –1999 but rice production rose
 4 at 1 mark [4]
- (ii) Amount of land use similar, but more rice produced
 Therefore higher yield – more rice per acre of land
 2 at 1 mark [2]
- (iii) HYV seeds
 irrigation
 fertilisers
 insecticides/pesticides
 technology/machinery
 co-operatives
 loans
 Allow elaboration
 6 at 1 mark [6]
- (d) No mark for yes/no/ maybe. Mark reasons.
 Food crops – increased population
 improved standard of living
 better nutrition
 better state of health
 reduces imports – money could be spent on developments
 Cash crops – needed for industry as raw materials – examples
 increased income/GNP/foreign exchange
 leads to other industries – fertilisers, irrigation equipment, tractors
 Allow elaboration
 6 at 1 mark [6]
- Total 25 marks**

4. (a) (i) small
in the home
family labour
women and children employed
low capital
local raw materials
use traditional crafts and methods
examples to 2 marks max.
Allow elaboration
4 at 1 mark [4]
- (ii) employment
self esteem
helps family income
develop skills
Allow elaboration
4 at 1 mark [4]
- (b) high increase in number of factories
source of foreign exchange – 55% export earnings
exports to 50 countries – US, Canada, France, Italy, Germany, UK
increased employment
particularly women (80% workforce)
Allow elaboration
4 at 1 mark [4]
- (c) 2500 (accept up to 2700)
Based on same trend as middle 1995 onwards
2 at 1 mark [2]
- (d) waste and effluents from heavy industries e.g. along Karnaphuli River
lower oxygen levels
fish and aquatic life die
smells from effluents in reservoirs and rivers
air pollution – toxic gases
examples – 1 mark (e.g. tanneries, fertiiser factories, chemical works,
paper mills)
4 at 1 mark [4]
- (e) encourage technical education
encourage private and foreign initiatives (MNCs)
provide industrial loans
improve transport and communications
research relating to industry
infant industry protection
Allow elaboration
7 at 1 mark [7]
- Total 25 marks**

5. (a) (i) the number of babies born per 1000 of the population per year [1]
- (ii) the number of babies per 1000 who die before their first birthday [1]
- (iii) the difference between birth rate and death rate, not including migration [2]
- (b) (i) 60+ reserve 1 mark
improved standard of living
improved health care
improved food/nutrition
improved sanitation
cleaner water supplies
improved living conditions
3 at 1 mark [4]
- (ii) 0-4 reserve 1 mark
family planning programmes
education/awareness
empowerment of women - careers
lower infant mortality - fewer babies born
3 at 1 mark [4]
- (c) money sent back to family
relieves population pressure
relieves pressure on land/farms
brain drain – professionals leave
young men leave
4 at 1 mark [4]
- (d) (i) traditional beliefs
low social status
discrimination
early marriages
lack of schools
Allow elaboration
4 at 1 mark [4]
- (ii) fewer schools
lower skills required in employment
Allow elaboration
2 at 1 mark [2]
- (iii) low paid jobs
unskilled jobs
newer jobs - e.g. IT - require education
Allow elaboration
3 at 1 mark [3]
- Total 25 marks**

Mark allocations in this specimen paper against weightings for Assessment Objectives (AOs)

The allocation of marks across the assessment objectives (AOs) in this specimen paper is shown in the table below:

	AO1	AO2	AO3	Marks
1 a	6	3		9
b	2	4		6
c	5		5	10
2 a		7		7
b	7			7
c			4	4
d	7			7
3 a	2			2
b	5			5
c	6	6		12
d			6	6
4 a	4		4	8
b		4		4
c		2		2
d	4			4
e	5		2	7
5 a	4			4
b		8		8
c			4	4
d	9			9
Total	66	34	25	125
Percentage	52.8%	27.2%	20%	100%

GRADE DESCRIPTIONS

A **Grade A** candidate will be expected to:

- communicate in a clear and coherent manner using appropriate terminology
- accurately recall, select and deploy relevant knowledge and understanding
- make well-balanced judgements on environmental, developmental or historical issues, by evaluating differing viewpoints and solutions
- demonstrate a thorough understanding of concepts and themes such as inter-relationships, cause and consequence, continuity and change and similarity and difference, using accurate and relevant evidence
- accurately comprehend and analyse a variety of historical documents and geographical resources.

A **Grade C** candidate will be expected to:

- communicate in a coherent manner using appropriate terminology
- recall, select and deploy relevant knowledge and understanding
- make balanced judgements on environmental, developmental or historical issues by recognising differing viewpoints and solutions
- demonstrate an understanding of concepts and themes such as inter-relationships, cause and consequence, continuity and change and similarity and difference, using limited evidence
- comprehend and interpret a variety of historical documents and geographical resources.

A **Grade F** candidate will be expected to:

- communicate in an understandable form, using simple terminology
- recall a limited amount of accurate and relevant knowledge
- recognise at a basic level the existence of differing values that influence environmental, developmental or historical issues
- demonstrate a basic understanding of concepts and themes such as inter-relationships, cause and consequence, continuity and change and similarity and difference
- comprehend and interpret a variety of historical documents and geographical resources in a limited way.