

## **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, fertiliser 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

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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.