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

(ii) suitable relief – steep-sided valleys
    valley dammed – Lake Kaptai - many rivers feed into it
    high rainfall
    2 at 1 mark

(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

(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

(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

Total 25 marks
2. (a)  (i) 530 mm

(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

(iii) range of 8°C
    high temperature
    uniform May to November
    highest in April

    3 at 1 mark

(b)  (i) seasonal winds that bring heavy rainfall

(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

(c) crops die
    livestock die
    lack of food/starvation
    malnutrition
    lack of income
    poor harvest

    4 at 1 mark

(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

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

(b) Flat, low-lying land
alluvial soils – from flooding of rivers
water retaining soils
temperatures $16^\circ$C – $27^\circ$C
rainfall high – 1000 to 3000 mm

5 at 1 mark

(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

(ii) Amount of land use similar, but more rice produced
Therefore higher yield – more rice per acre of land

2 at 1 mark

(iii) HYV seeds
irrigation
fertilisers
insecticides/pesticides
technology/machinery
co-operatives
loans

Allow elaboration

6 at 1 mark

(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

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

(ii) employment
   self esteem
   helps family income
   develop skills
   Allow elaboration
   4 at 1 mark

(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

(c) 2500 (accept up to 2700)
    Based on same trend as middle 1995 onwards
    2 at 1 mark

(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

(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

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+
- 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
- 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:

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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.