

## MARK SCHEME for the May/June 2014 series

### 7094 BANGLADESH STUDIES

7094/02

Paper 2 (Environment and Development of Bangladesh),  
maximum raw mark 75

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1 (a) **The rivers of Bangladesh change course often. Explain how rivers change course and form ox-bow lakes. You may use a diagram(s) to explain your answer.**

erosion on outer banks  
deposition on inner banks  
cause a river to migrate downstream  
when meander pronounced/more circular  
erosion on outer bend forms a narrow neck  
deposition builds up on inner bend  
neck eventually eroded  
river flows straight/breaks through  
deposits seal off the meander to create ox-bow lake [4]

(b) **Study Fig. 1 which shows the number of passengers and the amount of cargo transported by rivers between 1995 and 2010.**

(i) **Describe the changes in passenger numbers between 1995 and 2005.**  
fluctuating/variable/gradual or slight increase [1]

(ii) **Between which years did the amount of cargo carried stay the same?**  
1995–2002 [1]

(iii) **When was the biggest increase in the number of passenger transported by river?**  
2005–2006 [1]

(c) **Explain why rivers are an important form of transport in Bangladesh.**

large network of rivers/rivers everywhere  
well connected to rest of transport system  
cheap means of transport  
natural/environmentally friendly  
2/3 country flooded during monsoons – roads/railways limited use  
– provide aid/essential services  
roads and railways expensive to build/maintain  
roads congested/traffic jams/pressure on roads  
main towns/commercial centres on river banks  
villages not always accessible by roads/poor quality roads  
large amount/bulky goods carried  
ferries instead of bridges  
inland ports [4]

(d) (i) **Study Fig. 2 which shows the annual rainfall in Bangladesh. Describe the distribution of rainfall in Bangladesh.**

heavy/+3500 – in NE  
high/2500-3500 in – hilly regions/Sylhet/Chittagong  
– coastal areas at delta/mouth of Ganges/Padma  
moderate/2000-2500 – in N/NW  
extending SEwards  
lower/1500-2000 – towards W  
lowest/-1500 – extreme W, near Rajshahi

any 3 sections @ 1 mark each [3]

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- (ii) **Study Fig. 3 which shows annual rainfall patterns in Rajshahi and Chittagong. Using Fig. 3 only, compare the rainfall patterns of Rajshahi and Chittagong.**  
Rajshahi lower than Chittagong in all months  
same pattern  
most in July/July-September/monsoon period for both  
very little rain in November-April for both [2]

- (iii) **State when thunderstorm rainfall occurs and explain the causes of this rainfall.**  
summer/March-September  
late monsoon/October–November  
afternoons  
  
reserve 1 mark  
  
on hot, humid days air above ground heated  
warm, moist air rises  
expands  
cools  
condenses into water vapour  
form cumulo-nimbus clouds – leads to rainfall  
  
reserve 1 mark [4]

(e) **Study the two statements below.**

- A ‘Hydro-electric power could greatly improve Bangladesh’s electricity supply.’**
- B ‘The scope for increasing the generation of hydro-electric power is very limited in Bangladesh.’**
- (i) **Give one piece of evidence which supports statement A.**  
cheaper than coal/oil/gas  
renewable/gas running out  
necessary physical features – hilly, high rainfall, fast flowing rivers – available in parts of NE and SE  
15 rivers identified as having potential for HEP [1]
- (ii) **Give one piece of evidence which supports statement B.**  
only 1 HEP station at Kaptai  
majority of land low and flat/most rivers in final stage  
need to use dams built in neighbouring Myanmar  
causes displacement of people  
expensive to build [1]
- (iii) **Which statement do you agree with the most? Give reasons for your answer.**  
Points can be taken from those in (i) and (ii) and developed  
No marks for stating A or B, only for reasons  
  
Accept answers that support both statements [3]

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2 (a) Study Fig.4, a pie chart which shows the percentage of fish caught in different areas.

Complete the pie chart for the inland fisheries where aquaculture is practised using the figures below:

ponds and baors – 35% =1

shrimp farms – 5% =1

[2]

(b) (i) Describe two differences between marine and inland fishing.

Marine –

at sea/in salt water

larger/powerful/specialised vessels needed e.g. trawlers

mackerel, dogfish, shark, ray

Inland –

fresh water

use rods and small nets/small/traditional boats

carp, catfish, shrimps, tilapia

cultured, aquaculture, genetically engineered species

Need to compare the 2 types

[2]

(ii) Describe methods of inland fishing.

Capture/caught –

in shallow waters

rafts/small boats

use bare hands

lines/rods and traps of bamboo

nets of different meshes

allow traditional names

Aquaculture –

improved breeding and feeding techniques

use derelict ponds, irrigation canals, roadside ditches

Polycultures –

e.g. poultry-fish, rice-fish

tidal areas – rotation of aquaculture and agriculture

– high salinity – shrimps reared, low salinity – rice grown

[4]

(iii) Why has it been difficult to increase the amount of fish caught in the marine fishing industry?

short marine fishing season October – March because of adverse weather conditions

lack of modern methods/need modernised boats/advanced tools

most traditional boats with small engine – limited to coastal fishing

over-exploitation of fish in coastal waters

need for conservation and management

many fishermen poor – cannot afford to expand/receive no loans

many fishermen illiterate – do not try new methods

[3]

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- (c) **Study Fig. 5 which shows the distribution of forests in Bangladesh. Describe the distribution of the three types of forests.**

deciduous – scattered in central and Sylhet areas/in E/one to the NW/Dinajpur  
evergreen – in Chittagong Tracts area, to the E/SE  
mangrove – coastal areas, to SW/Sundarbans

1 mark for each type

[3]

- (d) (i) **Study Photograph A (Insert) which shows a mangrove forest in Bangladesh.**

**Describe the trees shown in Photograph A.**

pneumatophorus roots/roots above ground level  
prop roots  
pencil-like roots  
fallen/leaning trees  
canopy of leaves  
very thin trunks/vines/lianas  
grow in water/flooded area/in mud/swamp  
close together/dense vegetation

[3]

- (ii) **Explain why it is important to conserve the mangrove forests.**

most productive of the forests  
buffer against storms, tsunamis, etc.  
protect coast from erosion  
diversity of wildlife  
important tourist area  
home of Bengal tiger  
source of fuelwood  
breeding ground of fish/shrimps

[3]

- (e) **Study the two statements below.**

**A ‘Deforestation is unavoidable with the increasing population of Bangladesh.’**

**B ‘It is necessary to maintain the forests of Bangladesh to prevent environmental problems.’**

- (i) **Give one piece of evidence which supports statement A.**

more land needed for housing, agriculture, industry  
increased use of timber for housing, industry  
increased need for fuelwood  
expansion of shrimp cultivation

[1]

- (ii) **Give one piece of evidence which supports statement B.**

leads to desertification Barind/NW  
soil erosion – leading to flooding  
reduction of rainfall – lack of evaporation from leaves  
climate change/global warming  
loss of habitat and species of plants and animals  
less flooding

[1]

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- (iii) Which statement do you agree with the most? Give reasons for your answer.  
Points can be taken from those in (i) and (ii) and developed  
No marks for stating A or B, only for reasons  
Accept answers that support both statements [3]

3 (a) (i) Study Fig. 6 which shows the employment structure and GDP per person of three countries.

Complete the graph for India using the figures below:

agriculture – 50%  
manufacturing industry – 15%  
services – 35%

1 mark for each sector with correct % and shading [3]

(ii) Using the information from Fig. 6 describe the relationship between employment structure and GDP in the three countries.

Myanmar least developed/GDP – most agriculture/least services  
Bangladesh slightly more GDP – more industry/less agriculture  
India the most developed – more services, even though more agriculture than Bangladesh and less industry  
increased service sector = increased GDP

Allow 1 general mark if GDP is linked to a sector but not a country [3]

- (b) (i) Read the following article (Fig. 7) taken from a newspaper in May 2011. Using Fig. 7 only, explain why Bangladesh's economy has increased.  
increase in industry/manufacturing/garment industry  
increase crop yields/better weather for rice and wheat [2]

(ii) Using your own knowledge, explain why small scale industries, such as the garment industry, have been so successful in Bangladesh.

do not need state assistance/foreign buyers supplied credit  
exports  
no quota restrictions/large exports  
cheap labour/low wages  
plenty of (trainable) labour  
simple technology/advanced machinery not necessary  
quality control  
demand for cheaper clothing from abroad  
as a less developed country – preferential treatment from USA and EU  
government incentives – streamlined export-import formalities, warehouse facilities [4]

- (iii) Why is a reliable electricity supply necessary for industrial growth?  
needed for efficient use of machines  
higher output/fewer stoppages/continuous production  
needed for office work – computers, etc.  
for lights/fans/air conditioning  
to compete with other countries [2]

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- (c) (i) The money sent back to Bangladesh by international migrants is another factor for the economic growth.

**Which countries are the most popular destinations for international migrants from Bangladesh?**

Middle East or 2 named countries – Saudi Arabia, Kuwait, UAE, Oman, Qatar, etc.  
For Asia – must name 1 or 2 countries – Singapore, Malaysia, S Korea, etc.

[2]

- (ii) **Explain why people migrate to other countries.**

poor living conditions/for better standard of living  
improve quality of life/better health care  
unemployment/looking for jobs  
better wages/escape poverty  
landlessness  
better opportunities for career  
to study/education  
join family  
political/religious problems

[4]

- (d) **Study the two statements below.**

**A 'More manufacturing industries are needed to improve the economy.'**

**B 'Increasing the service sector is the best way to improve the economy.'**

- (i) **Give one piece of evidence which supports statement A.**

higher value goods  
productivity higher than agriculture  
export goods  
earn foreign exchange  
high-wage employment  
employment

[1]

- (ii) **Give one piece of evidence which supports statement B.**

attracts finance  
high value-added services  
informal service sector not so valuable/increases employment of poor/unskilled  
education key to development – more teachers  
allow a named service if linked to development

[1]

- (iii) **Which opinion do you agree with the most? Give reasons for your answer.**

Points can be taken from those in (i) and (ii) and developed  
No marks for stating A or B, only for reasons

Accept answers that support both statements

[3]

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- 4 (a) (i) **Study Fig. 8 which shows the main growing areas for three cash crops. Describe the distribution of the jute, sugar cane and tea growing areas.**  
Jute – along main rivers, central area, small area in SW  
Sugar cane – to W, along western border/NW  
Tea – to E, higher areas /Sylhet/Chittagong
- 1 mark for each crop [3]
- (ii) **Why is it important to grow cash crops?**  
export  
earn foreign exchange/increase GDP  
raw materials for industry  
source of employment [2]
- (b) (i) **Study Fig. 9 which shows the percentage change in acreage and production of three cash crops between 1997 and 2010.**
- Complete the production graph using the figures below:**
- sugar cane: – 40%  
tea: +13%
- 1 mark for each crop [2]
- (ii) **Explain why it is difficult to increase the production of cash crops such as jute and sugar cane.**  
demand/need for food crops  
more profitable to grow food  
low investment/no subsidies/e.g. of lack of investment (irrigation, land, fertiliser, etc.)  
low world demand for jute  
scarcity of land/pressure on land  
low world prices/low profit  
competition from other countries [4]
- (iii) **Name two products made from jute**  
carpets, bags, sacks, hessian cloth, rope, home textiles [2]
- (c) **Read the article, Fig. 10, on Bangladesh’s glass industry.**
- (i) **Why has the glass industry in Bangladesh grown?**  
increase in construction  
basic raw material/silica sand found in Bangladesh [1]
- (ii) **Name two raw materials needed for the glass industry.**  
silica sand and limestone [1]
- (iii) **What provides the power for the glass industry?**  
(natural) gas [1]



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**(d) What can the State do to encourage industrialisation in Bangladesh?**

- improve infrastructure – transport, electricity, ports – max 2
- encourage investors and MNCs
- enforce legal framework
- prevent strikes
- train workers/increase skills
- improve financial system/resolve bad debt problem/provide loans/subsidies
- reduce taxes on imports/exports
- develop EDZs
- protect infant domestic industries with legislation

[4]

**(e) Study the two statements below.**

**A ‘Modern techniques are needed in agriculture to increase food production.’**

**B ‘Modern techniques in agriculture cause too many problems.’**

**(i) Give one piece of evidence which supports statement A.**

- HYVs increase yield – multiple cropping – mature faster
- fertilisers increase yield, soil fertility
- pesticides prevent loss of crops to insects
- irrigation provides reliable supply of water
- machinery/technology efficient/fast/prevents wastage
- training/education/awareness of new techniques
- population increase needs more food/prevent malnutrition

[1]

**(ii) Give one piece of evidence which supports statement B.**

- expensive (for small farmers)
- fertilisers damage the soil over time
- fertilisers cause water pollution – eutrophication
- pests become resistant to pesticides
- pesticides cause water pollution
- mechanisation causes unemployment
- irrigation causes arsenic contamination of water

[1]

**(iii) Which opinion do you agree with the most? Give reasons for your answer.**

- Points can be taken from those in (i) and (ii) and developed
- No marks for stating A or B, only for reasons

Accept answers that support both statements

[3]

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- 5 (a) (i) **Study Fig. 11 which shows the birth rate in India, Bangladesh and Pakistan in 1980 and 2010.**  
**Complete the graph for Pakistan on Fig. 11 using the figures below:**  
1980 – 43  
2010 – 27
- 1 mark for each year [2]
- (ii) **Compare the changes in birth rate from 1980 to 2010 in Bangladesh with the changes in India and Pakistan.**  
Bangladesh biggest decrease  
Bangladesh started highest now lowest  
decreased by 24/1000 cf India 13/1000 – 1/1000 lower  
cf Pakistan 16/1000 – 7/1000 lower [3]
- (b) (i) **What is meant by the term ‘infant mortality rate’?**  
number of babies dying (per 1000 of the population)  
under 1 year of age [2]
- (ii) **Study Fig. 12 which shows the infant mortality rate between 1980 and 2010 for Bangladesh, India and Pakistan.**  
**How has the infant mortality rate for Bangladesh changed in comparison to India and Pakistan between 1980 and 2010.**  
Bangladesh – rapid/steep decrease cf steadier decrease of India and Pakistan  
– biggest decrease  
– by 92/1000  
– started highest now lowest  
Pakistan – by 52/1000  
India – by 54/1000 [3]
- (iii) **Explain how the health care system has brought about the changes in the infant mortality rate and birth rate in Bangladesh.**  
expanding immunisation  
diarrhoeal disease control/oral rehydration  
epidemic control  
family planning + awareness of population increase and situation  
establishing health complexes/clinics in every upazila/rural area  
NGOs and delivering health care to the poor  
health, sanitation and nutrition education/awareness re health  
maternal and antenatal care  
more hospitals  
more/better trained doctors/improved ratio to people [4]

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- (c) (i) **Explain what is meant by ‘a non-governmental organisation (NGO)’.**  
private not public/state sector  
run on non-profit basis/reinvest any profit  
financed by charities/donations (particularly international donors)
- (ii) **Describe the type of work done by NGOs, such as BRAC and Proshika, in Bangladesh.**  
provide healthcare/education  
in rural areas  
for the poor  
immunisation programmes, Child Survival Programme  
family planning  
training health cadres in communities  
teaching households about hygiene and sanitation  
distribution/provision of food and medicine  
building houses for the homeless/provide shelter  
empowerment of women/the poor/underprivileged  
access to microcredit/loans to set up business [4]

(d) **Study the two statements below.**

**A ‘The health care system is vital to improving the quality of life of the poor in Bangladesh.’**

**B ‘Improving nutrition will enhance the quality of life of the poor in Bangladesh.’**

- (i) **Give one piece of evidence which supports statement A.**  
controls disease, e.g. malaria, diarrhoea  
hygiene education  
enables people to work/earn money  
but other agencies need to be involved, e.g. clean drinking water, sanitation,  
increase LE/decrease DR [1]

- (ii) **Give one piece of evidence which supports statement B.**  
poor nutrition = poor health/healthier  
e.g. anaemia, malnutrition, blindness  
government set target to raise per capita calorie intake  
affects ability/energy to work, enjoy life [1]

- (iii) **Which opinion do you agree with the most? Give reasons for your answer.**  
Points can be taken from those in (i) and (ii) and developed  
No marks for stating A or B, only for reasons

Accept answers that support both statements [3]