2017

GEOGRAPHY

(Major)

Paper : 4.1

(Forms and Processes in Geomorphology)

Full Marks: 60

Time: 3 hours

The figures in the margin indicate full marks for the questions

1. Choose the correct answer:

 $1 \times 7 = 7$

- (a) Which of the following is not an exogenic process?
 - (i) Weathering
 - (ii) Nappe formation
 - (iii) Mass wasting
 - (iv) Erosion

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- (b) The younger alluvial plain of the northern Brahmaputra valley is located between
 - (i) piedmont zone and older alluvial surfaces
 - (ii) piedmont zone and floodplain zone
 - (iii) piedmont zone and foothills zone
 - (iv) foothills zone and floodplain zone
- (c) Chemical weathering processes are mostly dominant in
 - (i) semi-arid region
 - (ii) arid region
 - (iii) tropical humid region
 - (iv) Mediterranean region
- (d) The Tapti river valley is a
 - (i) synclinal valley
 - (ii) rift valley
 - (iii) strike valley
 - (iv) fault-line valley
- (e) In which part of river course the natural levee develops?
 - (i) Hilly part
 - (ii) Foothills part
 - (iii) Piedmont zone
 - (iv) Floodplain zone

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(Continued)

- (f) Watershed separates two
 - (i) hill ranges
 - (ii) river systems
 - (iii) different order of streams
 - (iv) river channels
- (g) Loktak lake in Manipur is formed by
 - (i) tectonic causes
 - (ii) erosional processes
 - (iii) depositional processes
 - (iv) anthropogenic activity
- 2. Answer the following in brief:

2×4=8

- (a) What do you mean by erosion?
- (b) What do you mean by diastrophic force?
- (c) Why does the river channel in the lower course tend to be wider than in the upper course?
- (d) State the difference between hazard and disaster.
- **3.** Write short notes on any three of the following: 5×3=15
 - (a) Mass wasting
 - (b) Landslide as a geomorphic hazard
 - (c) Floodplain
 - (d) River basin
 - (e) Processes of oxbow lake formation

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4. Answer the following:

10×3=30

(a) Define the term 'channel pattern' and present a classification of river channels. Mention the characteristics of each of the channel patterns. 2+2+6=10

What is drainage pattern? Describe different drainage patterns. 2+8=10

(b) Define weathering. Describe different types of physical weathering processes.

Describe the erosional landforms produced by river. 10

(c) Discuss the effects of flood in the Brahmaputra valley. 10

Or

What is meant by geomorphic hazard management? Discuss the management strategies required to be adopted in mitigating flood hazard. 3+7=10