

1

set 3

S8111

[Time: 3 Hours]

[Marks: 100]

Please check whether you have got the right question paper.

- N.B: 1. All questions are compulsory and carry equal marks.  
 2. Draw sketches and diagrams wherever necessary.  
 3. Use of map stencil and simple calculator is allowed.  
 4. Map appendix should be attached to the answer book.

1.	Attempt any two questions from the following:	
a)	Define Geomorphology. Describe its meaning and subject matter. Any one definition-study of landforms, process w.r.t. time-inductive and deductive approaches of studying geomorphology with suitable examples.	(10)
b)	Write a note on metamorphic rocks. Metamorphism by heat and pressure-chemical metamorphism-hydro metamorphism.	(10)
c)	What are plates? Describe various types of plate margins. Definition of plates-Constructive, Conservative and Destructive margins and their features.	(10)

2.	Attempt any two questions from the following:	
a)	What are faults? Explain the types of faults. Definition of faults- types: normal, reverse, lateral, step, oblique-slip and their characteristics.	(10)
b)	What are endogenic processes? Describe the various types of endogenic processes.	(10)
c)	Name the types of seismic waves and write a note on distribution of earthquakes. Primary, Secondary and Surface Waves- Pacific ring of fire- Mid-Atlantic ridge- seismic zones in India.	(10)

3.	Attempt any two questions from the following:	
a)	What is mechanical weathering? Explain the different types of mechanical weathering. Definition of mechanical weathering-characteristics of: block disintegration, granular weathering, frost action, exfoliation, shattering.	(10)
b)	Explain the various landforms created by the depositional work of rivers. Characteristics of: Alluvial fan-flood plains- natural levees-braided streams and delta.	(10)
c)	Describe the various erosional landforms created by glaciers. Characteristics of: Cirques and tarn, arête and horn, crag and tail, roche	(10)

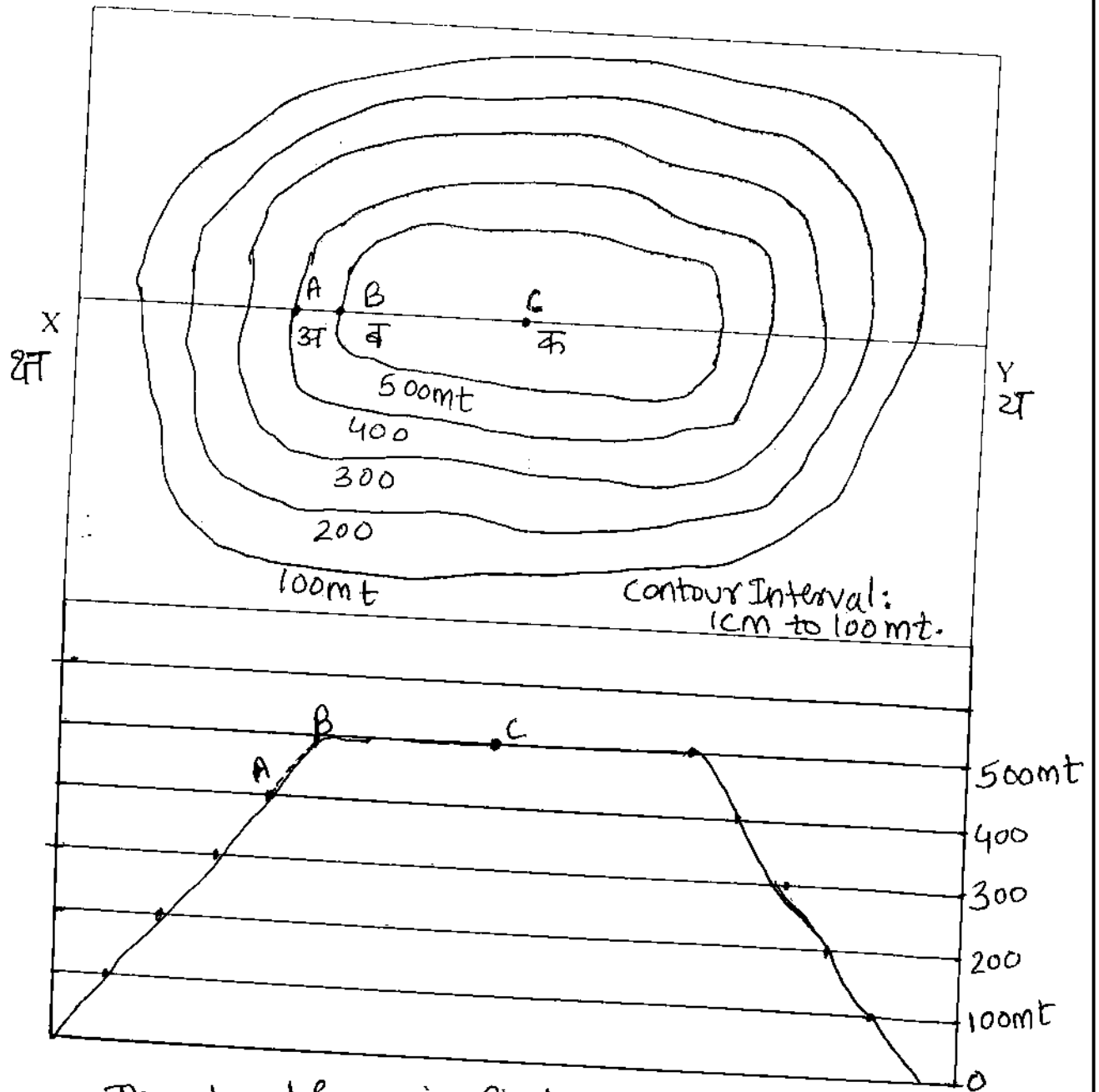
	moutonnee, glacial stairway and paternoster lakes, U-shaped valley and hanging valley.	
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4.	Attempt any two questions from the following:	
a)	What are Aeolian processes? Discuss the landforms formed by wind erosion. Definition of Aeolian processes-Characteristics of: deflation hollows, desert pavements, mushroom rocks, inselbergs, demoiselles, zeugens, yardangs, stone lattice, wind bridges and windows.	(10)
b)	Describe the processes operating on the formation of sea cliff, caves and wave cut platform in the coastal areas. Formation process: under cutting by wave action-hydraulic action-abrasion-overhanging cliff-collapse of the cliff-wave cut platform: cliff recession along with examples.	(10)
c)	Explain the various depositional landforms produced by the underground water. Characteristics of: Stalactite, stalagmite, cave pillars and drapes or curtains.	(10)

5.	Attempt any two questions from the following:	
a)	Explain in detail the concept of contours. Isolines that join places of uniform height-indicate nature and height of slope-spacing among contours used to identify the type of slopes-highest contour shows maximum height-contours of different height do not touch each other.	(10)
b)	Draw a cross section X and Y on the contour map given in Appendix I and identify the landform. State the intervisibility of points A, B and C.	(10)
c)	A and B points are on the height of 1200 metres and 800 metres contour respectively on a topographical map having scale of 1cm = 400 meters. The distance between A and B points on the map is 2 cms. So calculate the gradient between these points. Scale: 1 cm = 400 metres so 2 cms=800 metres Gradient=Vertical Interval (V.I.)/Horizontal Equivalent (H.E.) Gradient=(1200-800)/800 Gradient=400/800 <b>Gradient=1:2</b>	(10)
d)	Explain the concept of intervisibility. Intervisibility a condition where 2 places located on a slope are visible to each other-explanation for how the visibility differs from one topographical feature to another as the placement of contours change.	(10)

03

APPENDIX - I (परिशिष्ट - १)



The landform is Plateau

Intervisibility: A to B is visible  
B to C is visible  
A to C is not visible.

