

UG/5th Sem (H)/Pr/23/(CBCS)

2023

GEOGRAPHY (Honours)

Paper Code : GEOH DC-11B

(Soil and Biogeography)

(Practical)

Set - I

Full Marks : 15

Time : One Hour Thirty Minutes

The figures in the margin indicate full marks.

1. Using the following table (Results of a sieve analysis) :

Sieve No.	Sieve Opening (mm)	Weight of Soil Mass Retained (g)	Sieve No.	Sieve Opening (mm)	Weight of Soil Mass Retained (g)
10	2.00	0	20	0.850	80.2
12	1.70	31.7	25	0.710	76.6
14	1.40	48.2	30	0.600	55.2
16	1.18	125.6	50	0.355	43.6
18	1.00	96.0	Pan	-	22.0

Compute the percent of mass retained and passing through each sieve.

5

P.T.O.

2. The following data shows the area under National Parks in India during the period 2009-2022.

(a) Draw a time series graph to show the annual variation.

(b) Compute the trend by 3-year moving average and show it on the graph. $3+4=7$

Year	Area under National Parks ('000 km ²)	Year	Area under National Parks ('000 km ²)
2009	37.6	2016	40.2
2010	38.2	2017	41.6
2011	38.2	2018	42.0
2012	38.2	2019	42.0
2013	39.2	2020	42.2
2014	40.1	2021	43.2
2015	40.1	2022	44.4

Source : Wildlife Institute of India, 2022

3. Laboratory notebook & Viva-voce.

$1\frac{1}{2}+1\frac{1}{2}=3$

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Paper Code : GEOH DC-11B

(Soil and Biogeography)

(Practical)

Set - II

Full Marks : 15

Time : One Hour Thirty Minutes

The figures in the margin indicate full marks.

1. Using the following table (Results of a sieve analysis) :

Sieve No.	Sieve Opening (μm)	Weight of Soil Mass Retained (g)	Sieve No.	Sieve Opening (μm)	Weight of Soil Mass Retained (g)
20	850	0	45	355	875.5
25	710	376.9	50	300	712.0
30	600	880.0	60	250	625.2
35	500	505.5	70	212	581.5
40	425	1000.0	80	180	44.9

Compute the percent of mass retained and passing through each sieve. 5

P.T.O.

(2)

2. The following data shows the area under Mangrove cover in A & N Islands during the period 2003-2015.

(a) Draw a time series graph to show the annual variation of Mangrove cover.

(b) Compute the trend by 3-year moving average and show it on the graph. $3+4=7$

Year	Mangrove cover (km ²)	Year	Mangrove cover (km ²)
2003	686	2009	956
2004	973	2010	789
2005	971	2012	635
2006	966	2013	617
2007	966	2014	604
2008	966	2015	617

Source : Forest Survey of India (2015-2017)

3. Laboratory notebook & Viva-voce.

$1\frac{1}{2}+1\frac{1}{2}=3$
