

FIRST GRADE SURVEYOR/HEAD SURVEYOR'S TEST — APRIL, 2024

FIRST GRADE SURVEYOR'S TEST — PART – A (PAPER – II)

[Executive Instructions issued for the Survey of Land in Kerala
and the Maintenance of Land Records]

(Without Books)

[Books allowed : — 1. Chamber's Tables.

2. Boileau's Traverse Tables.

3. Scientific Calculator.]

[Time : 3 hours

(Maximum marks : 100)

	Marks
I The arms of a Triangle PQR are 218,170 and 156 metres respectively.	
(a) Determine each angles	8
(b) Determine the area of the above triangles	5
II What are the procedure of Survey of porambokes and other Govt. lands ?	8
III State and explain Double base triangulations with the help of diagram.	10
IV The tolerance error in angular and linear measurements is rectified by using Gales Travers system. Briefly explain how it is done in computation and plotting of traverse survey.	10
V What are the probable defects or errors while using Theodolite ?	10
VI Azimuth can't observe when the altitude of sun is below 20° and above 40° why ?	5
VII What are the Sophisticated instruments used in Digital survey ?	3

VIII Set up the traverse given below and compute the area, bearing of BC $12^{\circ}48'00''$. All the linear measurements are in metres and angles are shown in degree minute and second.

D	F	A
(55.1)	(68.0)	(63.2)
$152^{\circ}23'00''$	$142^{\circ}05'00''$	$114^{\circ}43'00''$
C	E	G
(45.0)	(23.0)	(32.2)
$128^{\circ}46'00''$	$102^{\circ}33'00''$	$147^{\circ}51'00''$
B	D	F
(47.1)		
$111^{\circ}36'00''$		
A		

25

IX Distinguish between the following :

- | | |
|--|---|
| (a) Northing and Southing | 4 |
| (b) Deduced Bearing and Reduced Bearing | 4 |
| (c) Face left and Face right observations in theodolite survey | 4 |
| (d) Floating station and Interpolated station | 4 |
