



# TELANGANA STATE PUBLIC SERVICE

## COMMISSION

### Notations :

- 1.Options shown in **green** color and with  icon are correct.
- 2.Options shown in **red** color and with  icon are incorrect.

<b>Question Paper Name :</b>	135 Paper Code 29th Nov 2021 Shift 1
<b>Subject Name :</b>	135 Paper Code
<b>Duration :</b>	180
<b>Calculator :</b>	Normal
<b>Magnifying Glass Required? :</b>	No
<b>Ruler Required? :</b>	No
<b>Eraser Required? :</b>	No
<b>Scratch Pad Required? :</b>	No
<b>Rough Sketch/Notepad Required? :</b>	No
<b>Protractor Required? :</b>	No
<b>Show Watermark on Console? :</b>	Yes
<b>Highlighter :</b>	No
<b>Auto Save on Console? ( SA type of questions will be always auto saved ) :</b>	No

### 135 Paper Code

<b>Group Number :</b>	1
<b>Group Id :</b>	881891263
<b>Group Maximum Duration :</b>	0

<b>Group Minimum Duration :</b>	180
<b>Show Attended Group? :</b>	No
<b>Edit Attended Group? :</b>	No
<b>Break time :</b>	0
<b>Group Marks :</b>	0
<b>Is this Group for Examiner? :</b>	No
<b>Revisit allowed for group Instructions? :</b>	Yes
<b>Maximum Instruction Time :</b>	0
<b>Minimum Instruction Time :</b>	0
<b>Group Time In :</b>	Minutes

## 135 Paper Code

<b>Section Id :</b>	881891263
<b>Section Number :</b>	1
<b>Section type :</b>	Offline
<b>Mandatory or Optional :</b>	Mandatory
<b>Number of Questions :</b>	1
<b>Number of Questions to be attempted :</b>	1
<b>Section Marks :</b>	0
<b>Display Number Panel :</b>	Yes
<b>Group All Questions :</b>	No
<b>Enable Mark as Answered Mark for Review and Clear Response :</b>	Yes
<b>Section Instructions :</b>	
English :	
Absolute	
<b>Sub-Section Number :</b>	1
<b>Sub-Section Id :</b>	881891263

Total No. of Questions : 7]

Total No. of Pages : 2]

November - 2021

Computation Test, Part-II

Computation of Azimuth, Rectangular & Spherical Co-ordinates

Convergency of Meridian & Hypotenuse Distances

(Without Books)

*Time : 3 Hours]*

*[Marks : 100*

- Note : 1) Candidate should attempt SIX Questions subject to alternatives or limitations, if any mentioned herein, or in each question. If more are answered, the last extra answers will be ignored.
- 2) Parts of the same question must be answered together and must not be interposed by answer(s) to other question(s).
  - 3) Authorities should be quoted in support of the answers wherever necessary.
  - 4) Question No. 1 is compulsory.
  - 5) Candidate should answer the paper in English only, except language Test or Surveyors Test, which should be answered in the language chosen only. In case of non-compliance, such Answer Script shall be invalidated.

- 1) a) A sail boat has a large sail in the shape of a right triangle. The longest edge of the sail measures 17 yards and the bottom edge of the sail is 8 yards. How tall is the sail in feet measurement?
- b) Write the relationship between hypotenuse and Pythagoras theorem? [2x10=20]
- 2) What is an azimuth used for? Why it is necessary to mandal surveyors to learn about azimuth, co-ordinates, meridians? [16]
- 3) a) What are the two co-ordinate systems used in surveying for reframing?
- b) What is the accuracy of GPS co-ordinates? [2 x 8 = 16]
- 4) a) Write about the instruments used to measure the magnetic Azimuth?
- b) If the Azimuth of the line AD is 230 degrees, find out the backward Azimuth?[2 x 8 = 16]
- 5) Write briefly about the 'Technical terms' used in Land surveying with symbols and abbreviations. [16]
- 6) a) Convert the following azimuth to bearings.  
 1)  $210^{\circ}30'$     2)  $0^{\circ}08'$     3)  $355^{\circ}10'$     d)  $157^{\circ}55'$
- b) Write short note on conversion of bearing? [2 x 8 = 16]
- 7) a) What is the prime meridian and the equator?
- b) How the instrument "Theodolite" is related to survey? [2 x 8 = 16]

