

**R09**

Code No: 56096

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech III Year II Semester Examinations, February/March - 2022

MINE SURVEYING - II

(Mining Engineering)

Time: 3 hours

Max. Marks: 75

Answer any five questions  
All questions carry equal marks

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1. The following refers to a traverse run by a tacheometer fitted with an anallatic lens. The constant of the instrument is 100 and the staff was normal.

Line	Bearing	Vertical angle	Staff intercept
PQ	32°28'	+ 5°6'	1.875
QR	305°58'	+ 3°48'	1.446
RS	222°24'	- 2°36'	1.725

- Find the length and bearing of SP. [15]
- 2.a) What is a compound curve? Explain.  
b) Explain the procedure of setting out a compound curve. [5+10]
3. Explain about stereo-photogrammetry. [15]
- 4.a) What are circumpolar stars?  
b) Write about Culmination. [7+8]
5. Explain the procedure of arrangement to ensure the verticality of shaft and uniform diameter of the shaft during its course of sinking up to a depth of 500m. [15]
- 6.a) What are the objectives of GIS?  
b) Describe the sources of error in GIS. [7+8]
7. Explain the principle and operation of Total station. [15]
- 8.a) What are the advantages of GPS Over conventional surveying method?  
b) Describe the principle and working of EDM. [7+8]

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