ITVoyagers (<u>itvoyagers.in</u>)

----- Practical 6-a -----

Georeferencing Topo Sheets and Scanned Maps

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https://drive.google.com/open?id=1fSn0Uv3AHIJsidAb\_wuT5rJNr0S5vpHf

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We are performing this practical in QGIS 3.4 version.

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itvoyagSelect "Installed" tab we can see "Georeferencer GDAL" just select theoyagers in checkbox before of it and close the window.



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#### Now we can see the "Georeferencer..." in "Raster" tab click on it.

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#### New window will open up.

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itvoyagle Georeferences window go to o File Open Raster vagers in itvoyagers in

# Select "1870\_southern-india.jpg" and click "Open". If it ask for CRS then select EPSG: 4326

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itvoyagNow map will get load in upper window in the bottom window we can will gets in see the coordinate's details which we are going to plot on the map. Our aim is to give map a perfect reference point which will help us overlap the map with the other maps like vector map. Now as we can see we selected itvoyagejpg" image we know that it doesn't contain coordinate's details like "tiff"gets.in does. Now we will add coordinate's details in this ".jpg" file and we will save it in ".tif" format. Do not having coordinate's details means that we cannot call that map/data in QGIS directly because it doesn't have itvoyageoreferences attached to it itvoyagers. in itvoyagers. in itvoyagers.in

Now map is drawn by very clever cartographer, he/she did mention the Longitude (Vertical lines, X axis) and Latitude (Horizontal lines, Y axis) in itvoyage although it is been drawn on paper but it represent exact location in real world. We can see the Latitude (Horizontal lines, Y axis) values on left

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and right side of the map and Longitude (Vertical lines, X axis) values on top and bottom of map.



We will plot few points on map and give those coordinates details. For that itvoyagets in itvoyagets in itvoyagets.in

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itvoyagzoom in to the point which is intersection of 70 Longitude (Xaxis value)/agers.in

### and **15** Latitude (Y axis value) and click on the intersection point.

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values 70 and 15 respectively.



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it vovagWe can see that we will get record for that point in GCP table window ovagers in

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 Dest. X
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#### Now by using same steps we will plot points on 70:5, 80:5, 90:5 and 85:15

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ILVO YUE	<b>v</b>	4	2662.45	-911.465	85	15	0	0	0	801311

After plotting all the points it will look like below screenshot.

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Transformation Sttings window will pop-up in that, in "Transformation Type" select "Thin Plate Spline".



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In "Resampling method" select "Nearest neighbour" and in "Target SRS" select "Project CRS: EPSG: 4326 – WGS 84" if you didn't find it just browse itvoyagitby dicking on buttonn itvoyagers.in itvoyagers.in itvoyagers.in

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Set path and name for the output file in "Output raster" text box by clicking on button. Enter the name and set path for the output file and click on "Save".

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#### Check the "Load in QGIS when done" checkbox. And click on "OK"

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itvoyagWe can see that new has been added in our layer panel gers in itvoyagers in



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Layer > Add Layer > Add Vector Layer...

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itvoyagSelect "net10m\_admin\_0ncountries.shp" file and click og eopen". itvoyagers.in

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We can see that our paper map in following coordinate system which helps it to get located at exact points where it is supposed to be.

itvoyagNow reduce the transparency of "ne\_10m\_admin\_0\_countries" layer.oyagers.in Right click on it and select properties...

Go to Symbology tab and reduce "Opacity" value and click on "OK" and we will get our output. itvoyagers.in itvoyagers.in itvoyagers.in itvoyagers.in

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