

e-text

Paper-CC9 (*Unit-II*)
Cartographic Techniques
Kinds of Profiles

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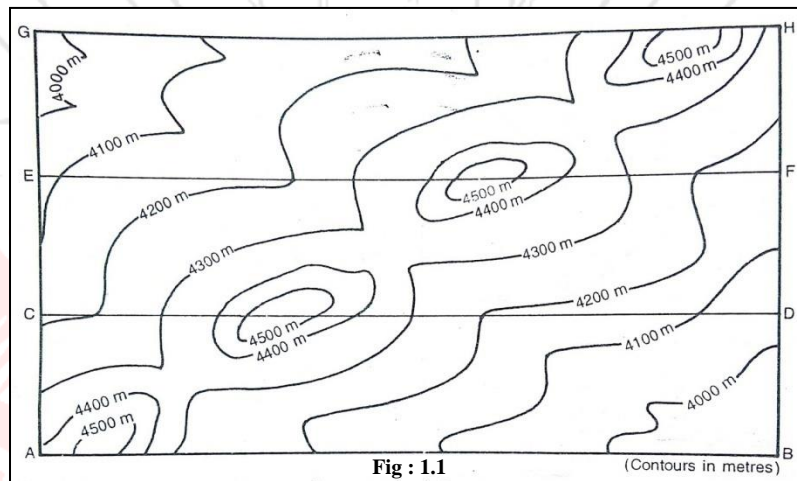
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KINDS OF PROFILES

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As you know in previous content “Profile” that There are four kinds of profiles prepared from the given contour map:



1. Serial profiles - If the lines drawn on different contours are arranged sequentially on different contour lines on a contour-line map, then this series of circumferences will be called the transition passages. For the contour line we draw the required number of parallel lines on the map (see figure). After this, the circles formed according to these different simple lines are arranged in a chronological manner in the form of a series. For identification, the name of the respective simple line such as AB, CD or EF etc. should be written on each column.

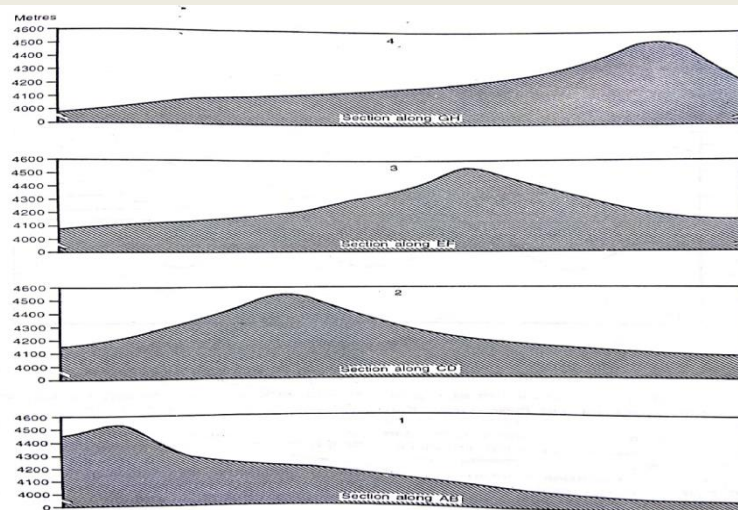


Fig : 1.2 Serial Profiles

2. Superimposed profiles - If the contour lines are drawn on the same baseline in a frame instead of separating the obtained circumferences according to the various simple lines on the map, then these circumferences will be said to be superimposed. In the picture, the infection passages are shown as implanted circumferences and their number is written on each of the nodes for identification.

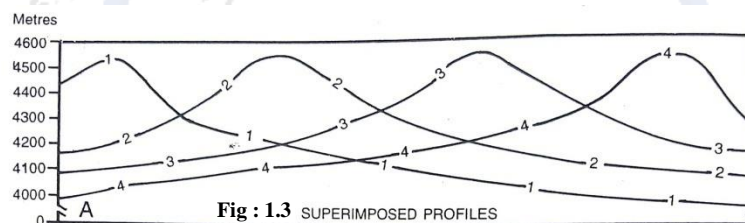
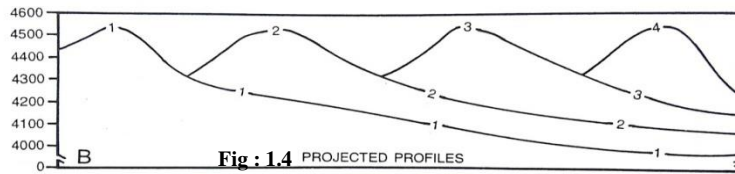
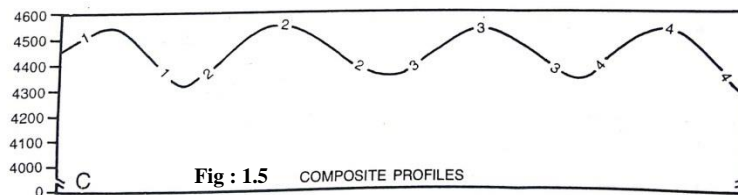


Fig : 1.3 SUPERIMPOSED PROFILES

3. Projected profiles - In order to create projected profiles, the first implanted traces are drawn and then the non-visible lower extremities of each profile are removed in the other implanted Profiles. In other words, in projected profile, the parts of a curve line that are hidden beneath the previously drawn profiles are not made. For example, in Figure B, the column of serial number 1 is shown in full and the parts of the column of serial number 2 are left below the column of serial number 1. Similarly, the parts of the third and fourth numbers are left below the first and second and the first, second and third columns respectively.



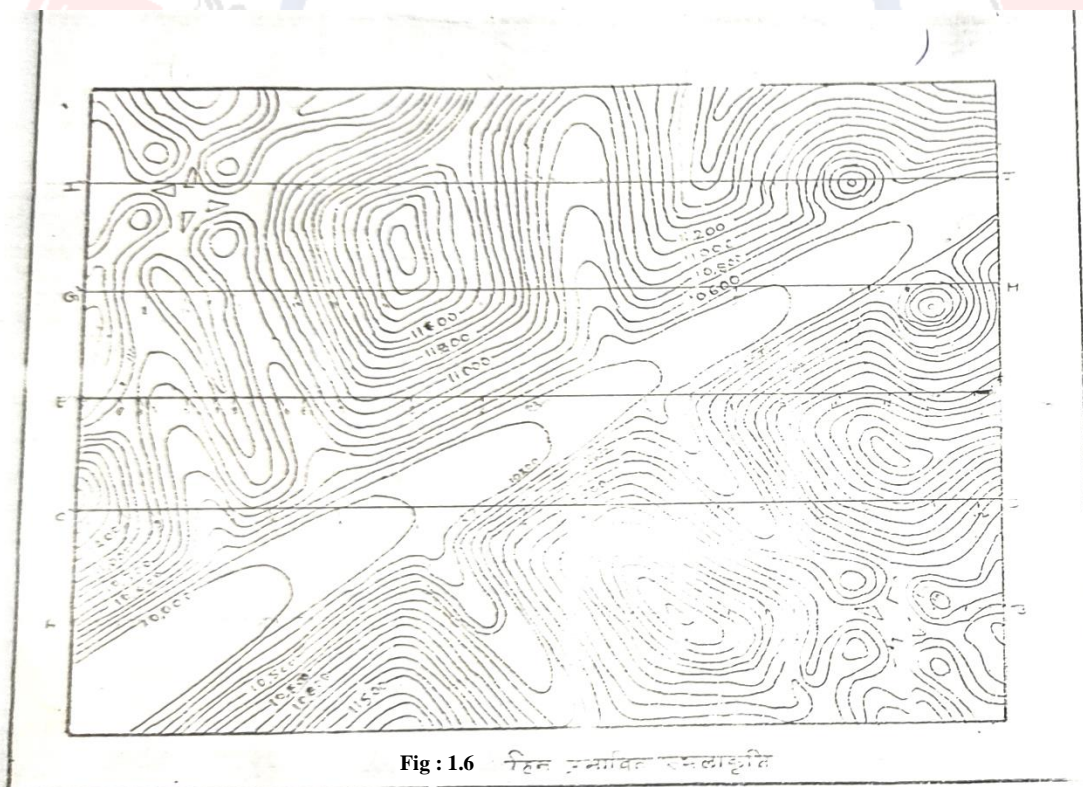
4. Composite profiles - The sky line is shown by the alloy circles. Therefore, to make these columns, the remaining parts of the circumferences are erased except for the line showing the highest parts in the implanted circumferences (Figure C).



Example 1: Describe the different kinds of profile by suitable diagrams with the help of contour lines in given contour map.

- **Solution:** At first start to make straight line on the given contour map; like- AB, CD, EF, GH, IJ. First we make serial Profile for each consequent parallel contour lines.
- Place a straight-edge paper strip or graph paper with the AB line and carefully mark the positions of all those points, including the points A and B where the contour lines between the points A and B touch the strip, with the help of pencil on the drawing sheet. Repeat it for the rest four contour lines separately.
- Write the height of the respective contour line on each 5 contour lines according to appropriate scale (Figure 1.6). Here 1 cm represent 500 Feet. But Superimposed, Projected and composite profiles draw on the scale of 1 inch = 1000 feet. These three profiles where construct one a single baseline by the superimposition of all profiles. (See fig 1.3)
- Draw a straight line AB 'equal to AB on any other paper and carefully move the points marked in the strip on this line and raise the height equal to the

- *height written on each point according to a given vertical scale. Repeat the same with CD, EF, GH and IJ Profiles.*
- *Draw the smooth curve joining the vertices of these perpendicular lines. This curve will reveal the Profile between the points A and B on the map. Repeat the same for the rest four Profiles.(fig 1.7)*
- *Superimposed Profile construct from the 1inch= 1000 Feet vertical scale with above method only all profile where superimposed on a single base line.(fig 1.8)*
- *In Projected profile parts of a curve line that are hidden beneath the previously drawn profiles are not made. (see fig 1.9).*
- *In composite profile only sky line of each superimposed profile are remain in the final drawing. (see 1.9)*



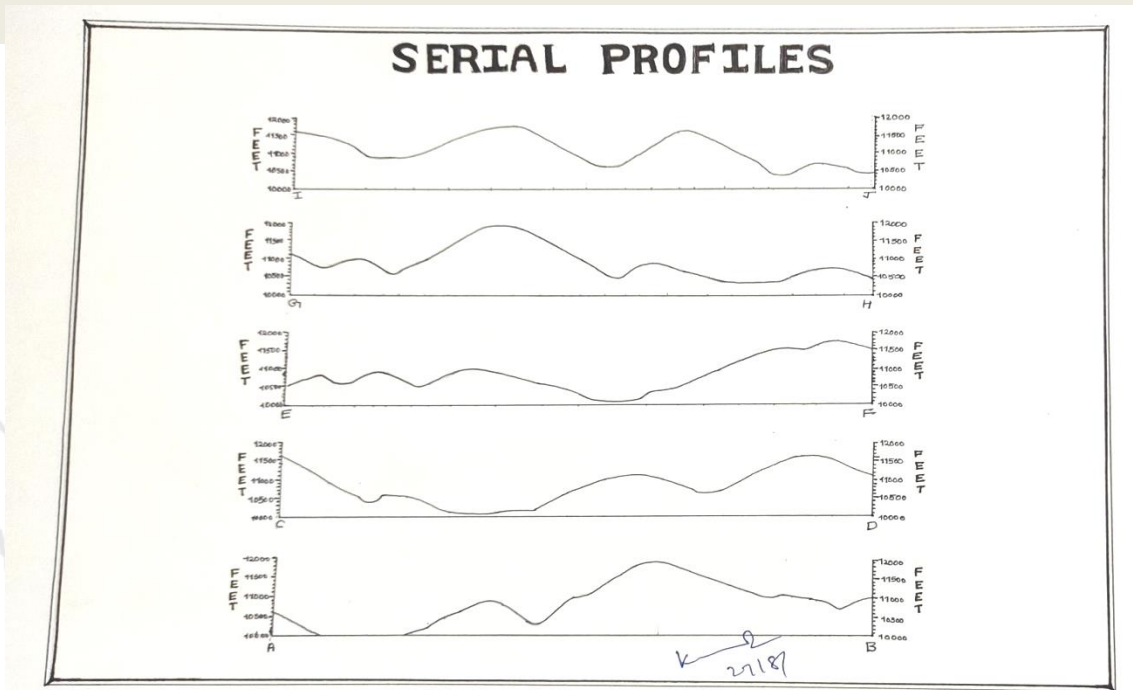


Fig : 1.7 Serial Profiles

Fig : 1.2 Serial Profiles

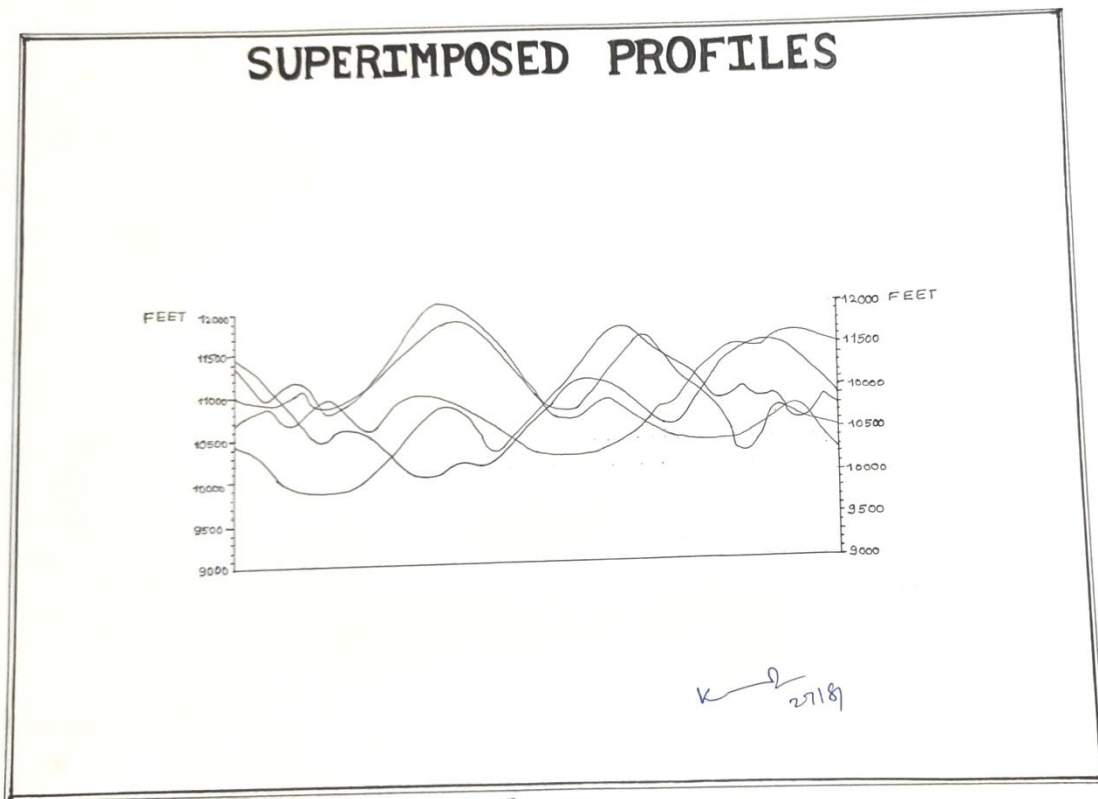
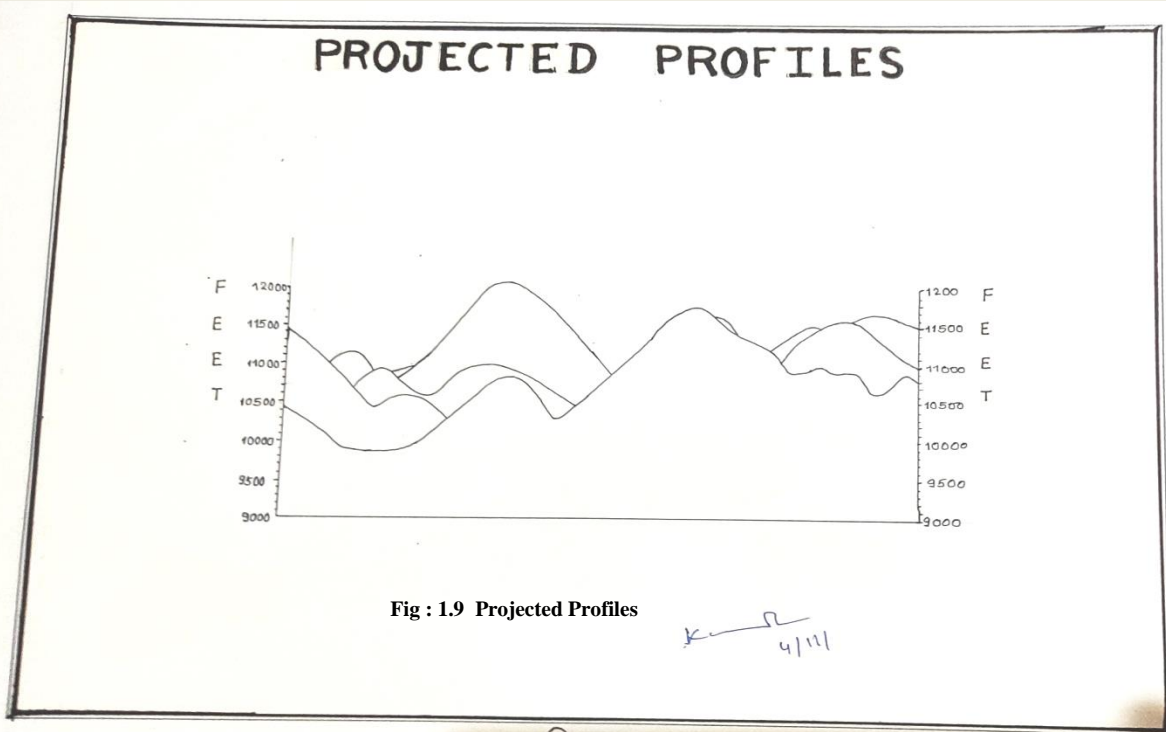
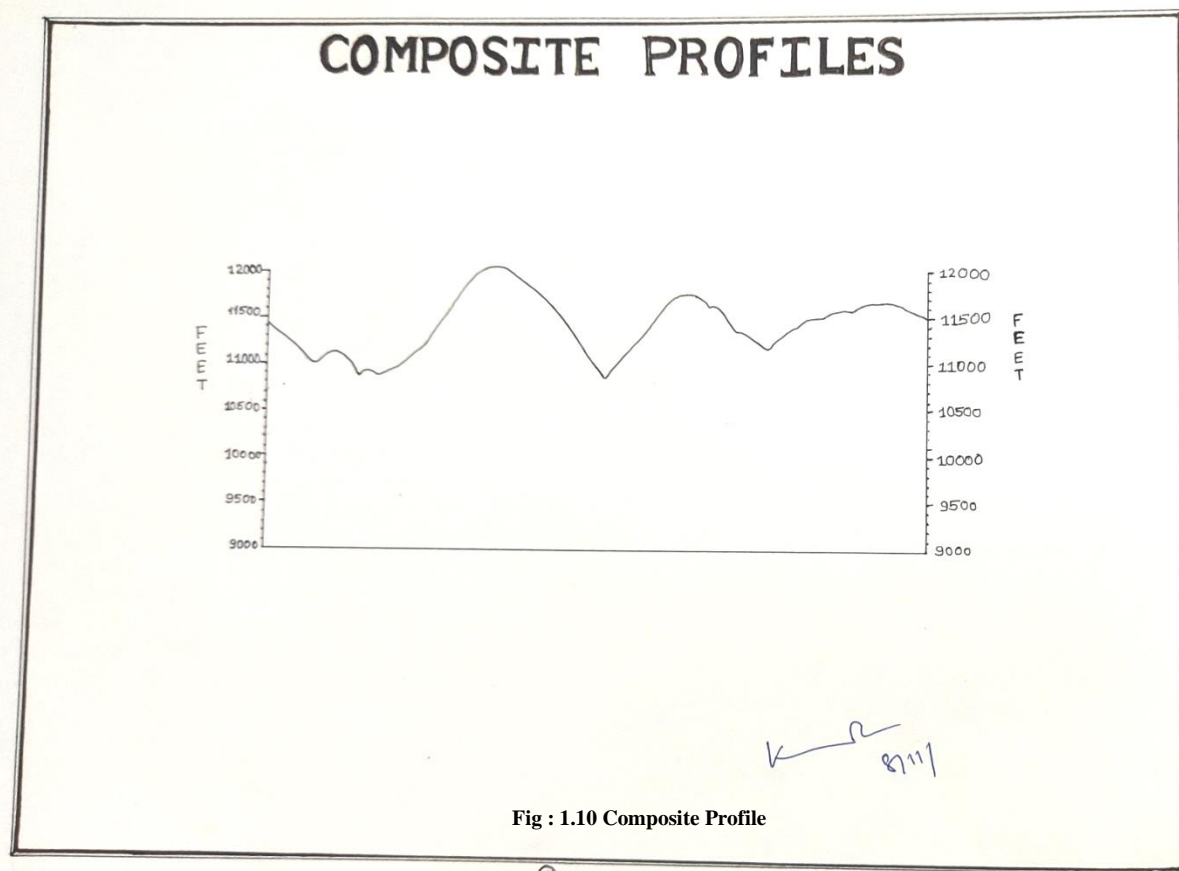


Fig : 1.8 Superimposed Profiles



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Model Question:

Q1. Describe the different kinds of profile by suitable diagrams with the help of contour lines, CD, EF, GH in given contour map.

