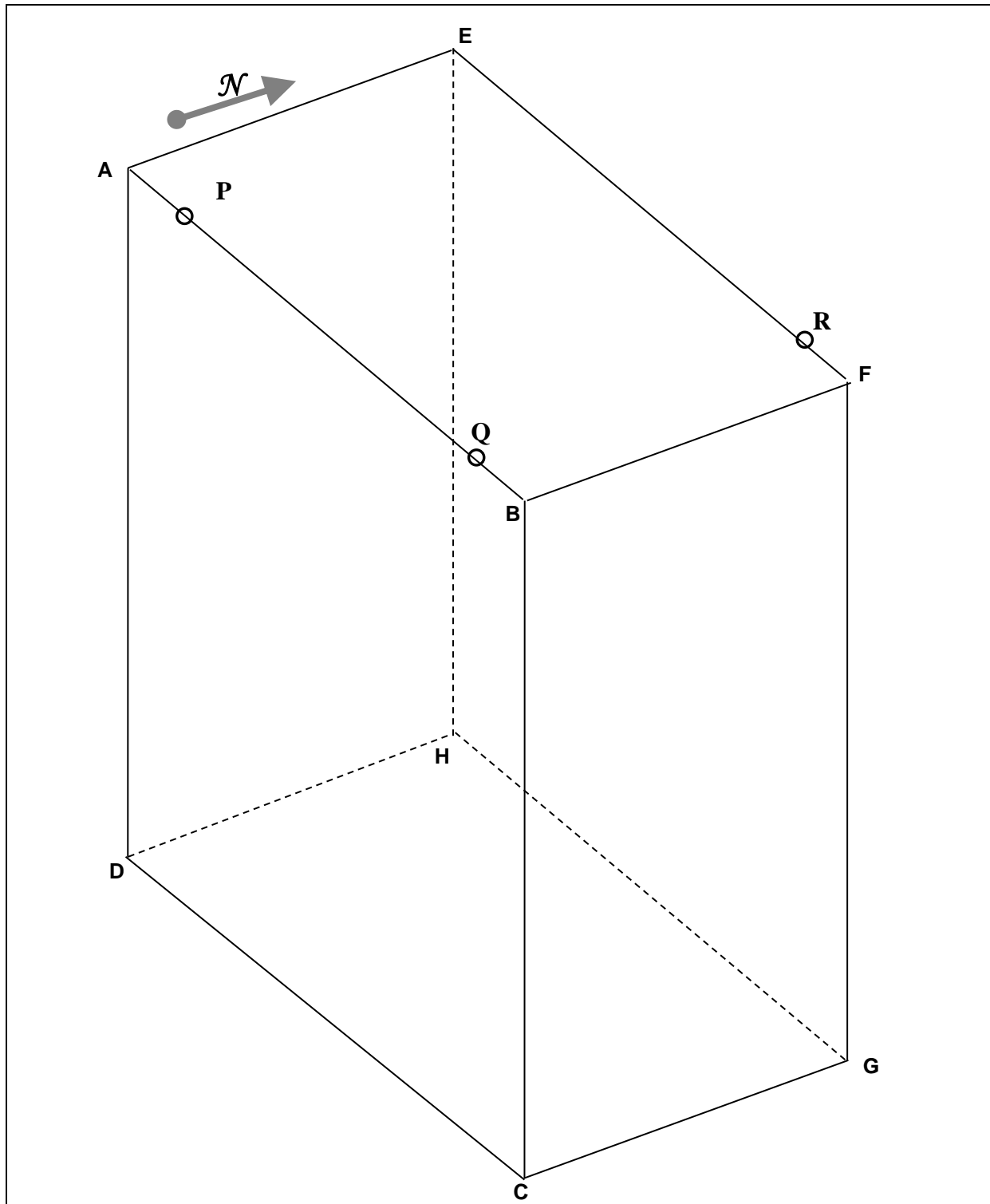


Bore Hole Block Diagram



Problem No. BHP/Block-1/2012

The given diagram is an isometric projection of a rectangular block. Scale – 1:100.
Answer the questions given in the next page.

Bore Hole Block Diagram

Questions for Problem No. BHP/Block-1/2012.

Three vertical bore holes, driven at the points P, Q and R, intersect the upper surface of a quartzite bed at points P_1 , Q_1 and R_1 respectively. $PP_1=2\text{mt}$, $QQ_1=8\text{mt}$, and $RR_1=3\text{mt}$.

1. Construct in the block diagram the upper surface of the quartzite bed.
2. S is a point on PQ. The vertical bore hole driven at S intersects the upper surface of the quartzite bed at S_1 . $SS_1=3\text{mt}$. Show the points S and S_1 in the block.
3. Join R_1S_1 and prove that it is the -3mt strike line of the upper surface of the quartzite bed (considering ABFE as the base level).
4. Join RS and prove that it is the -3mt stratum contour of the upper surface of the quartzite bed (considering ABFE as the base level).
5. Construct in the block the -2mt and -8mt strike lines and stratum contours of the upper surface of the quartzite bed. Justify your answer.
6. Draw the plan view and show the stratum contours in it.
7. Determine the attitude of the quartzite bed.
8. Verify your answer by determining the attitude of the quartzite bed by an alternative method. **(Constructing vertical sections along PQ & QR, finding out the plunges of the lines P_1Q_1 & Q_1R_1 and their stereographic projection may be an alternative method.)**