

Section 1

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Q.1 Answer \Rightarrow Explain the JBIG \Rightarrow

Joint Bi-level by how close
Joint Bi-level Image processing
Group (JBIG) recommends arithmetic
coding as the coding scheme
for coding binary images.

The JBIG standard is a
combination of lossless compression
algorithm and progressive
transmission algorithm.

- It is an advance version of JBIG
algorithm, it uses the same
arithmetic coding scheme
as JBIG. JBIG takes into
consideration the structure of
bi-level image which enhances
the compression performance.

- Uniform quantizer if \equiv ^(q) All
intervals
are of the same size except
possibly for the two outer
intervals (decision boundaries are

spaced evenly).

(b) Reconstruction values are also spaced evenly, with the same spacing as the decision boundaries.

In the inner intervals, the reconstruction values are the midpoint of the intervals.

The constant spacing is usually referred to as the step size and is denoted by Δ .

Fig. 4.8.1 is a uniform quantizer with $\Delta = 1$.

