GATE QUESTIONS

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1. Match the Boolean expression with its minimal realization.

	Boolean expression		Minimal realization
P	$\bar{X}\bar{Y}\bar{Z} + \bar{X}Y\bar{Z} + \bar{X}YZ$	K	$X(Y + Z)$
Q	$XYZ + X\bar{Y}Z + XY\bar{Z}$	L	$\bar{X}(Y + \bar{Z})$
R	$XY + XYZ + XY\bar{Z} + \bar{X}YZ$	M	Z
S	$\bar{X}\bar{Y}Z + \bar{X}YZ + X\bar{Y}Z + XYZ$	N	$Y(X + Z)$

(GATE BM 2020)

(A) $P - K$, $Q - L$,$R - N$, $S - M$

(B) $P - L$, $Q - K$, $R - N$, $S - M$

(C) $P - L$,$Q - N$, $R - M$, $S - K$

(D) $P - M$, $Q - K$, $R - L$, $S - N$