Medium | Deputy Executive Engineer (Electric | 2026 | orts Authority of Gujarat / Assistant Engineer (El

A	1, 2 4	Correct
B	1 3	
C	2 3	
D		

Correct Answer: A

Full Detailed Explanation

Correct Answer: A - 1, 2 and 4 onlyQuick Concept ExplanationEnergy and power are mutually exclusive classifications for ordinary nonzero signals: an energy signal has finite total energy and zero average power, while a power signal has finite nonzero average power and infinite energy. A finite-duration bounded signal normally has finite energy. Key relation: E= |x(t)| dt; P=lim(T)(1/2T) _{ T}^T|x(t)| dt.Exam focus: Periodic nonzero usually power signal, not energy signal. Common trap: Repetition does not make a periodic signal finite-energy.Statement-wise VerificationStatement 1 - Correct.An energy signal is one whose total energy is finite while its average power over an infinite duration is zero.Energy and power are mutually exclusive classifications for ordinary nonzero signals: an energy signal has finite total energy and zero average power, while a power signal has finite nonzero average power and infinite energy.Statement 2 - Correct.A power signal is characterized by finite average power but infinite total energy when integrated over time.Energy and power are mutually exclusive classifications for ordinary nonzero signals: an energy signal has finite total energy and zero average power, while a power signal has finite nonzero average power and infinite energy.Statement 3 - Incorrect.A periodic signal with non-zero amplitude always qualifies as an