

Easy

Deputy Executive Engineer (Electricity) 2026

Ports Authority of Gujarat / Assistant Engineer (Electrical)

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- A

1
- B

12

Correct
- C

23
- D

1, 23

Correct Answer: B

Full Detailed Explanation

Correct Answer: B - 1 and 2 only

Quick Concept Explanation

A modest increase in chilled-water supply temperature can improve efficiency if comfort/process requirements permit, while clean condenser tubes preserve heat transfer. Colder cooling-tower water generally reduces compressor lift; warm condenser water increases it. Key relation: Lower condensing temperature / higher evaporating temperature → lower compressor work.

Exam focus: Keep heat-exchanger surfaces clean and approach temperatures small. Common trap: Warm cooling-tower water does not reduce chiller compressor load.

Statement-wise Verification

Statement 1 - Correct. Increasing the chilled water supply temperature. A modest increase in chilled-water supply temperature can improve efficiency if comfort/process requirements permit.

Statement 2 - Correct. Cleaning the condenser tubes regularly to maintain heat transfer efficiency. A modest increase in chilled-water supply temperature can improve efficiency if comfort/process requirements permit, while clean condenser tubes preserve heat transfer.

Statement 3 - Incorrect. Using cooling tower water that is as warm as possible to reduce the compressor load. Lower condenser-water temperature generally lowers condensing pressure and compressor work, within chiller limits.

Core Concept