

Easy

Deputy Executive Engineer (Electrician) 2026

Gujarat Public Service Commission / Assistant Engineer (Electrical)

Consider the following statements regarding Registers: 1. Registers are groups of flip-flops used to store multi-bit binary data and are widely used for

A

All of the above

B

2 and 3 only

C

1 and 3 only

D

1 and 2 only

Correct

Correct Answer: D

Full Detailed Explanation

Correct Answer: D - 1 and 2 only Quick Concept Explanation A register is a group of flip-flops used to store a multi-bit word. Shift-register configurations can move data serially or in parallel and are widely used for serial/parallel conversion and temporary storage. Key relation: An n-bit register typically uses n storage elements.Exam focus: Storage/shift is the register's core job; arithmetic needs extra logic. Common trap: Do not treat a register itself as an adder. Statement-wise Verification Statement 1 - Correct.Registers are groups of flip-flops used to store multi-bit binary data and are widely used for temporary storage inside digital systems.A register is a group of flip-flops used to store a multi-bit word. Statement 2 - Correct.Shift registers allow serial as well as parallel data transfer depending on configuration and are used in data conversion applications.Shift-register configurations can move data serially or in parallel and are widely used for serial/parallel conversion and temporary storage. Statement 3 - Incorrect.Registers inherently perform arithmetic operations like addition and subtraction without additional combinational circuits.Registers store/shift data; arithmetic requires combinational arithmetic logic such as adders/ALUs Core Concept A register is a group of flip-flops used to store a multi-bit word. Shift-register configurations