

Select correct answer for all the problems. *

For the following 10 problems given:

$$|0\rangle = \begin{bmatrix} 0\\1 \end{bmatrix}$$
 and $|1\rangle = \begin{bmatrix} 1\\0 \end{bmatrix}$

Bell States:

For the following 10 problems given:
$$|0> = \begin{bmatrix} 0\\1 \end{bmatrix} and |1> = \begin{bmatrix} 1\\0 \end{bmatrix}$$
 Bell States:
$$|B1> = \frac{1}{\sqrt{2}} \ (|\ 00> +\ |\ 11>), |B2> = \frac{1}{\sqrt{2}} \ (|\ 00> -\ |\ 11>)$$

$$|B3> = \frac{1}{\sqrt{2}} \ (|\ 01> +\ |\ 10>), |B4> = \frac{1}{\sqrt{2}} \ (|\ 01> -\ |\ 10>)$$
 1) On expressing $\frac{1}{\sqrt{2}} \ (|\ 01> +\ |\ 10>)$ in terms of the Bell States, the coefficients of B1 and B2 are:
$$0.0$$

$$|B3\rangle = \frac{1}{\sqrt{2}} (|01\rangle + |10\rangle), |B4\rangle = \frac{1}{\sqrt{2}} (|01\rangle - |10\rangle)$$

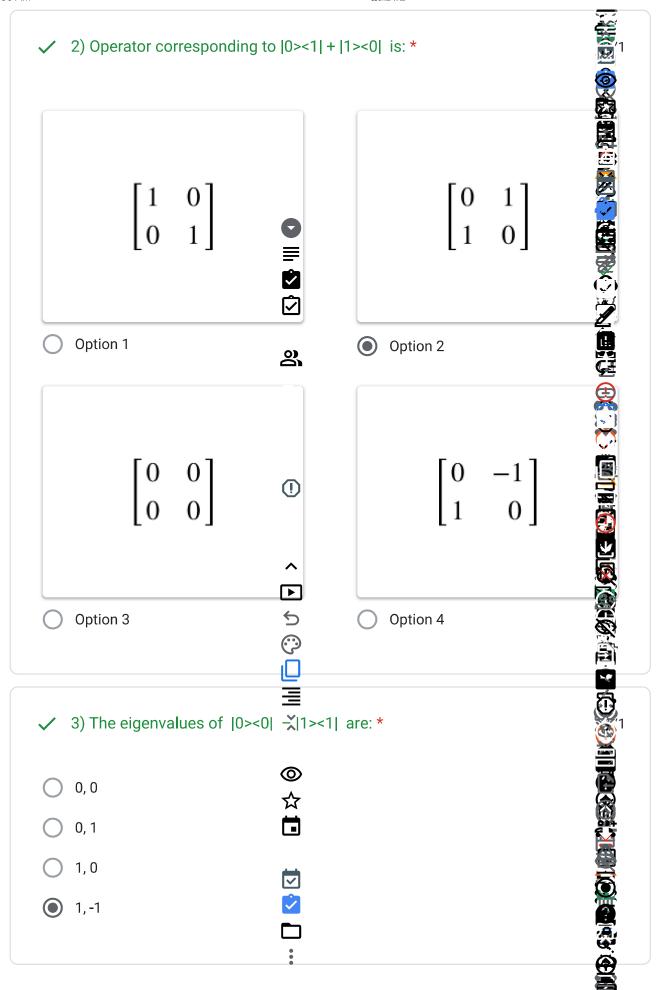
1) On expressing $\frac{1}{\sqrt{2}}$ (|01>+i|10>) in terms of the Bell

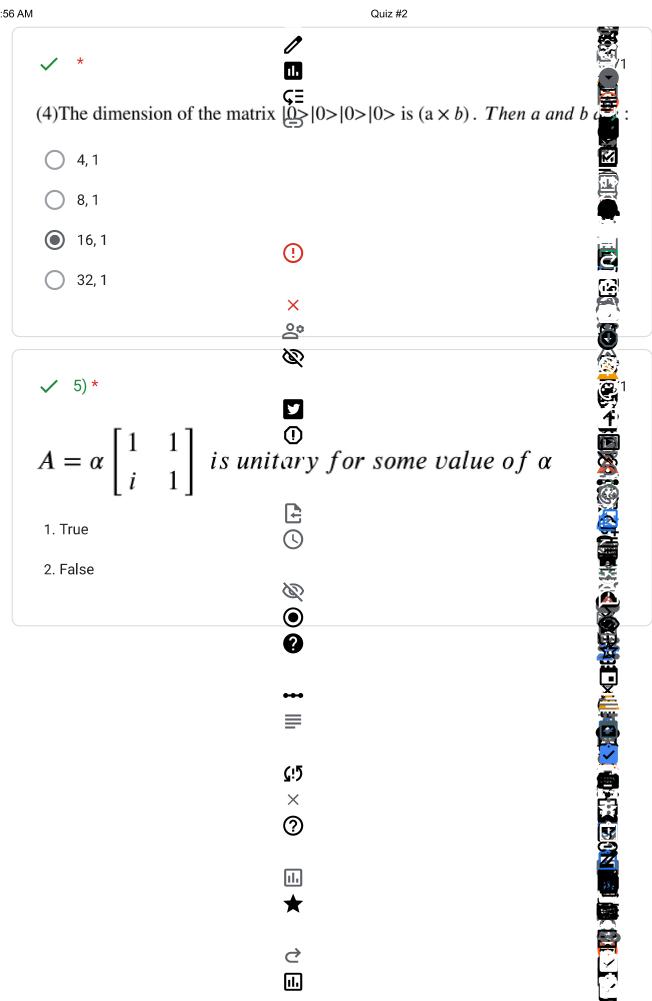
States, the coefficients of B1 and B2 are:

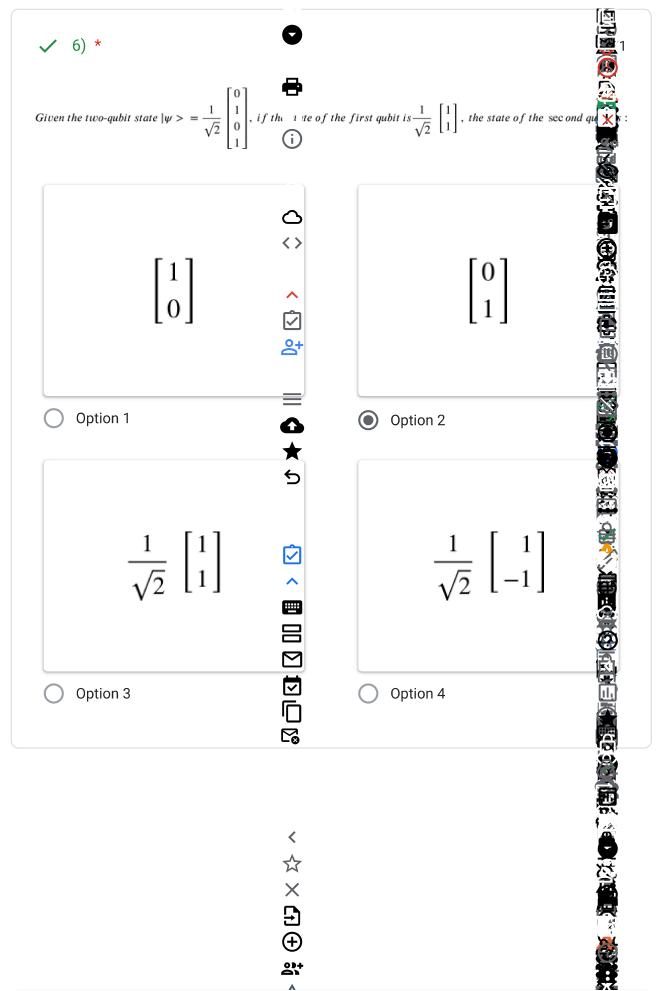
- 0,0
- 0, 1
- 1, 0
- 1, 1

Correct answer

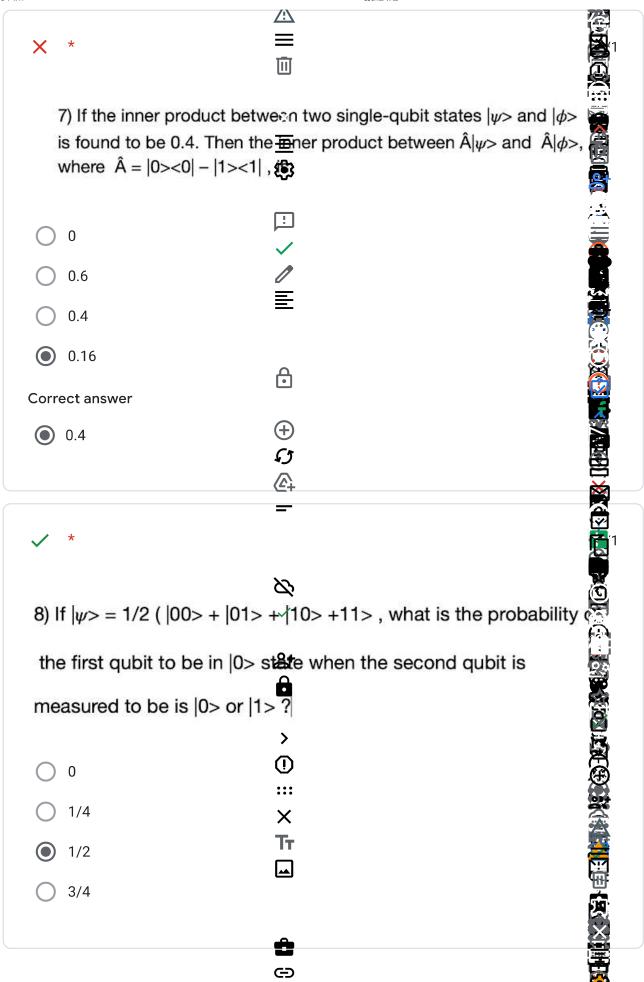
0,0

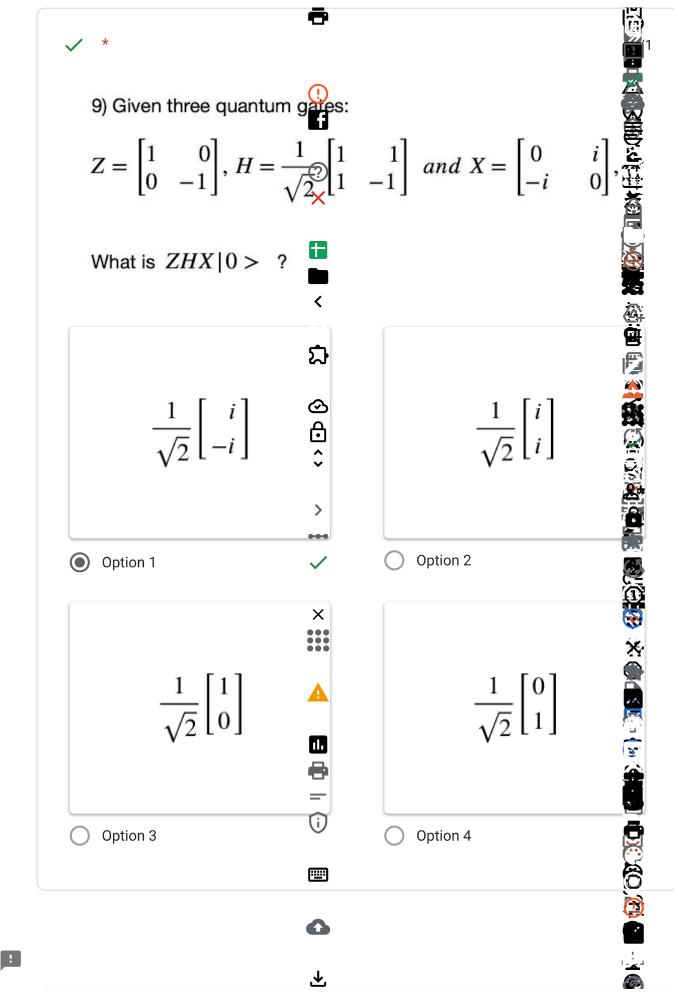




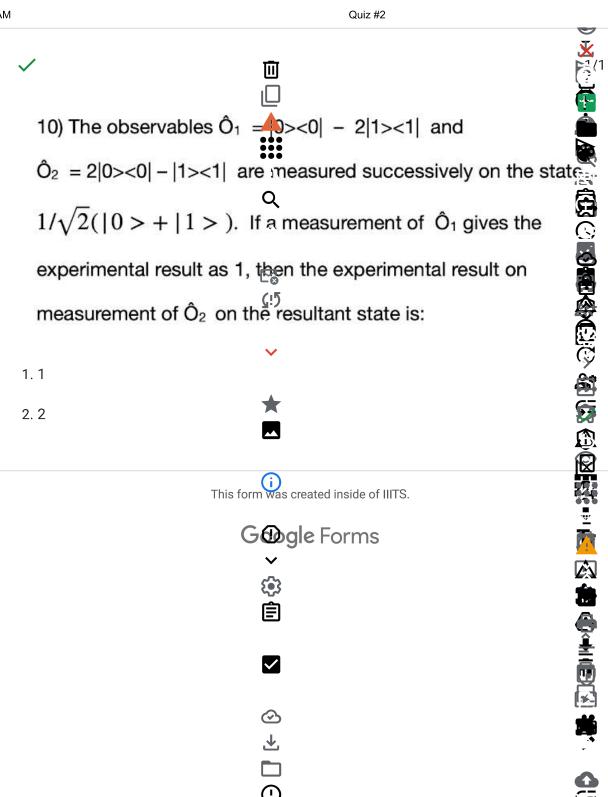


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2.2

























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