Quiz - DFT, QFT Results for Prateek Jain

(!) Correct answers are hidden.

Score for this attempt: 10 out of 10

Submitted May 23 at 6:57pm This attempt took 2 minutes.

Question 1	2 / 2 pts
Use pen and paper to compute DFT of $\binom{3}{4}$.	*
$\bigcirc \left(\frac{\frac{3}{\sqrt{2}}}{\frac{4}{\sqrt{2}}} \right)$	
$ \bigcirc \left(\begin{array}{c} \frac{7}{\sqrt{2}} \\ -\frac{1}{\sqrt{2}} \end{array}\right) $	
$\bigcirc \left(\begin{array}{c} \frac{1}{\sqrt{2}} \\ -\frac{1}{\sqrt{2}} \end{array}\right)$	
$\bigcirc \left(\begin{array}{c} \frac{3}{\sqrt{2}} \\ -\frac{4}{\sqrt{2}} \end{array} \right)$	

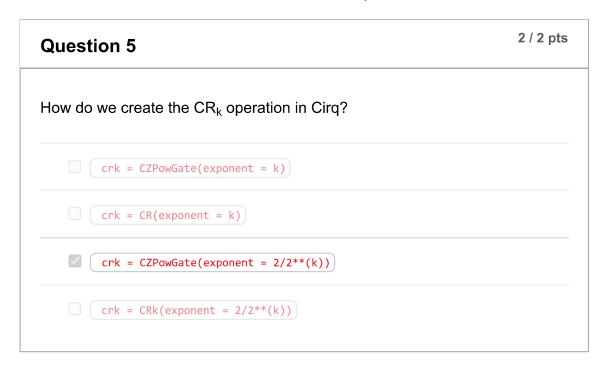
$$igcup rac{1}{2}ig(|00
angle + i|01
angle - |10
angle - i|11
angleig)$$

Question 3	2 / 2 pts
L./III	

What happens if we apply the operation CR2 to the quantum state $\frac{|01\rangle+|11\rangle}{\sqrt{2}}$?

- $\bigcirc \quad rac{|01
 angle + e^{2\pi}|11
 angle}{\sqrt{2}}$
- $\bigcirc \frac{\ket{01}{+}e^{rac{\pi i}{2}}\ket{11}}{\sqrt{2}}$
- $\bigcirc \quad \frac{e^{\frac{\pi i}{2}} |01\rangle + e^{\frac{\pi i}{2}} |11\rangle}{\sqrt{2}}$
- $\bigcirc \;\; rac{e^{\pi i 2^{-1}}}{\sqrt{2}} \ket{11}$

Question 4	2 / 2 pts
Select the gates which are used in the QFT circuit.	
✓ H	
ПХ	
✓ CZPowGate	
П	
✓ SWAP	



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