

QUIZ – ANSWER KEY

QUIZ NO: 79

TOPIC: ELECTRICAL ENGINEERING

DATE: 02/06/2022

1. In A/D converter, what is the time relation between sampling period T and the duration of the sample mode and the hold mode?
- [A] Should be larger than the duration of sample mode and hold mode
 - [B] Should be smaller than the duration of sample mode and hold mode
 - [C] Should be equal to the duration of sample mode and hold mode
 - [D] Should be larger than or equals to the duration of sample mode and hold mode

Answer: A

2. The time required to complete the conversion of Analog to Digital is _____ the duration of the hold mode of S/H.
- [A] Greater than
 - [B] Equals to
 - [C] Less than
 - [D] Greater than or Equals to

Answer: C

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3. Convolution is considered in case of _____

- [A] Discrete time systems only
- [B] Continuous time only
- [C] In both continuous time and discrete time
- [D] Superposition of various outputs

Answer: C

4. When are dummy variables used in continuous time convolution?

- [A] To change the limits of integration
- [B] To change the domain of integration
- [C] To substitute time analysis
- [D] To substitute frequency analysis

Answer: B

5. After converting the input and output to a dummy variable, the next step of convolution is _____

- [A] Shifting any one of the signals to left side i.e towards the negative direction
- [B] Changing the dummy variables
- [C] Shift the impulse response
- [D] Shift the input

Answer: A

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6. The convolution of $x(n)=\{1,2,3,1\}$ and $h(n)=\{1,2,1,-1\}$, origin at 2, is?

[A] $\{1,4,8,8,3,-2,-1\}$, origin at 4

[B] $\{1,4,8,8,3,-2,1\}$, origin at 4

[C] $\{1,3,8,8,3,-2,-1\}$, origin at 4

[D] $\{1,4,8,3,-2,-1\}$, origin at 4

Answer: A

7. Does the system $h(t) = \exp([-1-2j]t)$ correspond to a stable system?

[A] Yes

[B] No

[C] Marginally Stable

[D] None of the mentioned

Answer: C

8. For an LTI discrete system to be stable, the square sum of the impulse response should be

[A] Integral multiple of 2π

[B] Infinity

[C] Finite

[D] Zero

Answer: C

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9. Does the system $h(t) = \exp([1-4j]t)$ correspond to a stable system?

- [A] Yes
- [B] No
- [C] Marginally stable
- [D] None of the mentioned

Answer: B

10. If h_1 , h_2 and h_3 are cascaded, and $h_1 = u(t)$, $h_2 = d(t)$ and $h_3 = d(t)$, find the overall impulse response

- [A] $s(t)$
- [B] $d(t)$
- [C] $u(t)$
- [D] all of the mentioned

Answer: C

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