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Courses » Design for internet of things

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Unit 3 - System Design and Overview of Power Supply Section

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egulators and Accepted Answers: Pout=(Vin-Vout)*[(lout)+lq]	
Se Studies $Pout=(Vin-Vout)^*[(lout)+lq]$	
4) What happens when we increase the switching frequency of a switching regulator?	1 poir
onditioning Switching losses	

High power dissipation

with Energy

Harvesters

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Battery less power supply and battery life calculation for embedded	Both (a) and (b) No change in the regulator No, the answer is incorrect. Score: 0
devices	
IoT Protocols	Accepted Answers: Both (a) and (b)
IoT LAN and	5) In the ball bearing system, the presence of the power good signal from the boost converter 1 point switches Vsupply to:
WAN Connectivities	Vldo
	DC voltage from the rectifier
IoT Case Studies	Vout Zero
	Zero
	No, the answer is incorrect. Score: 0
	Accepted Answers: Vout
	6) In the ball bearing energy harvesting system design, When does the nRF51822 (SoC) decide 1 <i>point</i> to perform high power consuming operations (such as transmitting a BLE packet)?
	 When Pgood signal is low from the boost converter When Pgood signal is high from the boost converter When Vldo is sufficiently charged When Vout is not enough to charge the super cap
	No, the answer is incorrect. Score: 0
	Accepted Answers: When Pgood signal is high from the boost converter
	7) What are the components in the ball bearing application are required to complete it as an IoT 1 point system.
	Data AnalyticsData TransmissionEdge Computation
	Status of the machinery All of the above
	No, the answer is incorrect. Score: 0
	Accepted Answers: All of the above
	8) What are the causes of noise in a power supply? 1 point
	High power switching within SoC Digital Signal Processors Defect in the source that generates the power Both (a) and (b)
	No, the answer is incorrect. Score: 0
	Accepted Answers: High power switching within SoC

Digital Signal Processors

Defect in the source that generates the power

9) Why is it not recommended to drop a high voltage across a voltage regulator?

High power dissipation across the regulator

1 point

Desig	In for internet of things Unit 3 - System Design and Overview of Power Supply Section Low power dissipation across the regulator Need to include additional circuitry along with the regulator None of the above	
	No, the answer is incorrect. Score: 0	
	Accepted Answers: High power dissipation across the regulator	
	10)When are switching regulators preferred over linear regulators?	1 point
	 When the output voltage has to be lower by large difference with the input and thus avoi excess heat dissipation When the voltage has to be increased by a major value They are chosen on a random basis Both (a) and (b) 	d
	No, the answer is incorrect. Score: 0	
	Accepted Answers: When the output voltage has to be lower by large difference with the input and thus avoid excedissipation	ess heat
	11)What are the features of a linear regulator?	1 point
	Control signal is continuous in time Current flow is continuous Current flow is non-continuous Both (a) and (b) Both (a) and (c)	
	No, the answer is incorrect. Score: 0	
	Accepted Answers: Both (a) and (b)	
	12)What is the relation between input and output voltage of an LDO?	1 point
	Vout=Vin Vout <vin vout="">Vin Any of the above</vin>	
	No, the answer is incorrect. Score: 0	

Accepted Answers:

Vout<Vin

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End

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