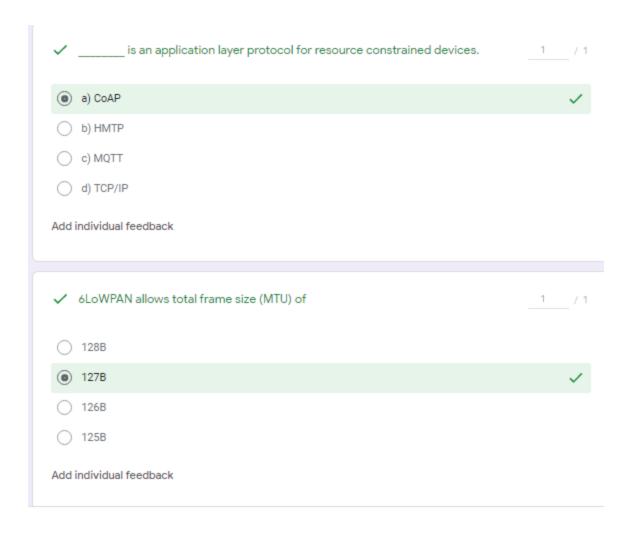
IAT-2 QUESTION PAPER AND SOLUTIONS

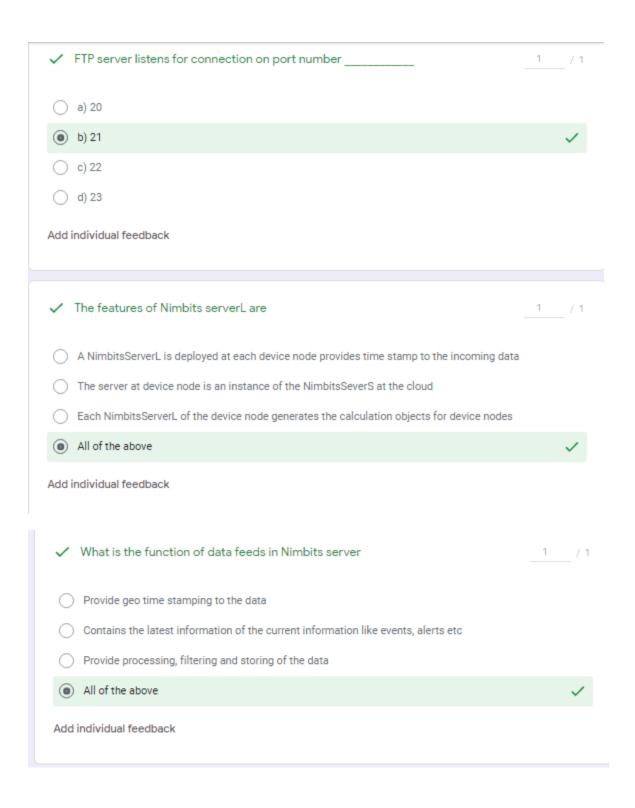
✓ The TTL field has value 10. How many routers (max) can process this datagram?	/1
(a) 11	
○ b) 5	
(a) c) 10	~
O d) 1	
Add individual feedback	
✓ Which field helps to check rearrangement of the fragments?	_1/1
a) offset	~
a) offset b) flag	~
	✓
○ b) flag	✓

✓ The size of an IP address in IPv6 is	/ 1
a) 4bytes	
b) 128bits	~
C) 8bytes	
(d) 100bits	
Add individual feedback	
✓ Which of the following are components of a sensor network?	_1/1
✓ Which of the following are components of a sensor network? ○ Sensor nodes	/1
	_1/1
○ Sensor nodes	_1/1
Sensor nodes Sensors	/1

✓ Which are the features present in IPv4 but not in IPv6?	_1/1
a) Fragmentation	
(b) Header checksum	
C) Options	
d) Anycast address	~
Add individual feedback	
✓ 6LoWPAN Adaption layer contains?	_1/1
a) Header compression	
b) Fragmentation	
C) Layer 2 forwarding	
d) Header compression, Fragmentation, and Layer 2 forwarding	~
Add individual feedback	

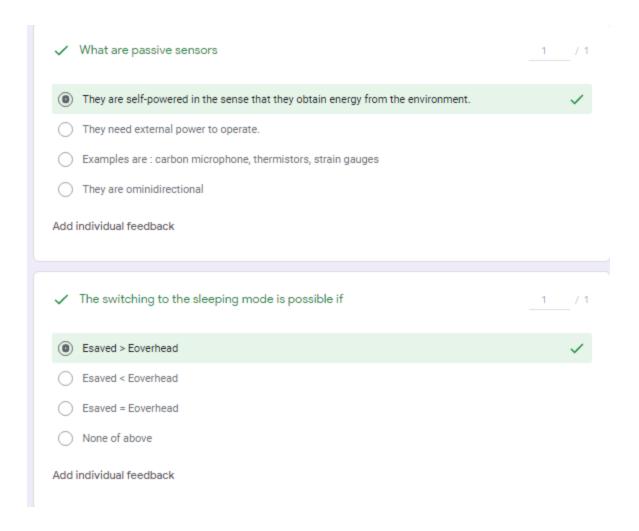


✓ HTTP is protocol.	/1
a) application layer	~
(b) transport layer	
C) network layer	
(d) data link layer	
Add individual feedback	
✓ HTTP client requests by establishing a connection to a particular port on the server	_1/1
	/1
on the server	/ 1
on the server a) user datagram protocol	/ 1
on the server a) user datagram protocol b) transmission control protocol	/ 1



WSN structure will be succeed using IP which one is more efficient and appropriate?	/1
○ IPv4	
○ IPv5	
IPv6	~
None above	
Add individual feedback	
✓ In WSN which type of controller module is mostly used	/1
Microcontrollers	~
○ DSPs	
○ FPGA	
○ ASICs	
Add individual feedback	

✓ Transceivers mostly work in	_1 /1
Transmit mode, receiver mode, Idle mode, Sleep mode	~
Transmit mode, receiver mode, Idle mode, hybrid mode, Sleep mode	
Transmit mode, receiver mode, Idle mode, hybrid mode, Deep sleep mode	
Transmit mode, receiver mode, Idle mode, Sleep mode, Awake mode	
Add individual feedback	
✓ The function of the wakeup receivers are:	_1/1
Also called as Spread - spectrum transceivers	
The receiver is the part of RF band of transceiver	
They are secondary radio transceiver, is implemented to monitor the channel condition	~
None of the above	
Add individual feedback	



✓ What is an event handler	/ 1
An embedded system in WSN that handles hardware interrupts	
A set of instructions that store the necessary information about the occurrence of event	~
A graphical user interface	
None of the above	
Add individual feedback	
✓ What is a Real Time Operating System (RTOS)	/1
It is a type of operating system that is embedded means specifically configured and progra	
It is a type of operating system that is embedded means specifically configured and progracertain hardware configuration to do specific tasks	
It is a type of operating system that is embedded means specifically configured and progra	
It is a type of operating system that is embedded means specifically configured and progration to do specific tasks Hardware that uses embedded operating systems are lightweight, compact and operate with the systems are lightweight.	
It is a type of operating system that is embedded means specifically configured and progration to do specific tasks Hardware that uses embedded operating systems are lightweight, compact and operate with number of resources.	

✓ Find the correct statement	_1/1
A frame: Defines the work to be done	
○ Tasks: Request	
Event Handlers: Interrupts/trigger arriving from external	~
Command: Contains the state information	
Add individual feedback	
✓ Find the correct statement	/ 1
a) Commands are passed from high level to low level components and Event are level to high level components.	passed from low 🗸
b) Commands are passed from low level to high level components and Event are to high level components.	passed from low level
c) Commands are passed from high level to low level components and Event are to high level components.	passed from low level
d) Commands are passed from low level to low level components and Event are phigh level components.	passed from low level to

✓ What is the full form of nesC	/1
network embedded system programming.	
network and embedded system programming.	✓
network and embedded system program.	
network embedded system program	
Add individual feedback	
✓ In node mobility	/1
✓ In node mobility ☐ The objects tracked are mobile	_1/1
	/1
The objects tracked are mobile	/1
The objects tracked are mobile The information sinks are mobile	/1

✓ In Quality of service in wsn, find the correct statement	1 / 1
Time to first node death: The time at which the first node runs out of energy or stop working.	
Network half-life: The time at which 50% of the nodes runs out of energy or stop working.	
Time to partition: The time at which network get divided into further networks or there is partit between source and sink.	tion
All of the above	~
Add individual feedback	
✓ In In-network processing	1 / 1
The processing is done at the gateway outside the network.	
The processing is done inside the sensor network close to the source.	✓
There is a central controller controllers for all the nodes in wsn	
None of the above	
Add individual feedback	

~	What is overhearing	1	_ / 1
0	Listening when no traffic is sent		
0	A type of collision		
•	Receiving the packets destinated for other nodes		~
0	Headers for signlling		
Add	individual feedback		
~	What are low duty cycle protocols	1	/ 1
0	Wakeup period has same waking time and sleeping time		
•	Where active period is very less than sleeping period		✓
0	Where active period is more than sleeping period		
0	None of these		
Add	individual feedback		

✓ What is Duty cycle	1	/ 1
Ratio of active and sleep period		
Ratio of sleep and wakeup period		
Ratio of active and wakeup period		~
Ratio of wakeup and sleep period		
Add individual feedback		
✓ In periodic wakeup scheme	1	_ / 1
The node spends most of the time in sleeping state.		
The node wakeup periodically in the 'listen period' to receive the packets from other nodes		
The sleep state is left only when the node is about to transmit and receive the packets		
All of the above		~

Add individual feedback

✓ What is full form of STEM	/1
Spare Topology Topology and Energy Management	
Sparse Topology and Energy Management	~
Sparse Target and Energy Management	
Sparse Topology and Energy Monitering	
Add individual feedback	
✓ Which of the following statements are correct for STEM-T	_1/1
The neighboring nodes (other then the intended recipient) which hear busy signal shift to do to the sleeping mode.	ata channel or
The transmitter sends busy tone on wake up channel for a long enough time to hit the receiperiod.	ivers listen
Busy tone does not contain any address information	
All of the above	~
Add individual feedback	

✓ Which of the statements are true for the SMAC protocols	_1/	1
Sensors Medium Access Control		
S-MAC or Scheduled MAC.		
A periodic wakeup schedule is maintained by the nodes		
specifically designed for the Ad hoc wireless sensor networks		
All of above	~	
Add individual feedback		
✓ What is full form of RTS and CTS signal used in S-MAC	_1/	1
RTS: Request to send, CTS: Clear to send	~	
RTS: Request to synchronize, CTS: Clear to synchronize		
RTS: Required to send, CTS: Clear to send		
○ None		

✓ Which are the contention based protocols	/ 1
○ SMAC, CSMA	
CSMA, PAMAS	~
O PAMAS, LEACH	
○ LEACH, SMAC	
Add individual feedback	
✓ What is full form of PAMAS	_1/1
 ✓ What is full form of PAMAS ○ Power Adaptive Multi-Access with Signaling 	_1/1
	_1/1
Power Adaptive Multi-Access with Signaling	_1/1
Power Adaptive Multi-Access with Signaling Power Aware Multi-Access with Signaling	_1/1

✓ What is the use of probing protocol on the control channel	/1
The node sends a t_probe (I/2,I) packet where 'I' is the length of packet	
Probing protocol defines the length of outgoing transmission (i.e. Probing protocol defines outgoing transmission (i.e. length of ongoing packet)	the length of
$\begin{tabular}{ll} Any transmitter node who finishes the transmission with in this time interval '(l/2,l)' answer t_probe_response (t) packet indicating the time 't' where transmission ends. \\ \end{tabular}$	rs with
All of the above	~
Add individual feedback	
✓ What is full form of LEACH protocol	_1/1
Low-Energy Adaptive Clustering Hierarchy	
Low-Energy Adaptative Clustering Hierarchy	~
Low-Energy Adaptive Cluster Hierarchy	
Low-Energy Aggregation Clustering Hierarchy	
Add individual feedback	
✓ Which statement is false in LEACH protocol?	/1
In the set up phase, clusters are created and cluster heads are determined	
The nodes join the cluster nearest to them with the strongest signal	
In the steady phase the CSMA-based solutions are used for the inter-cluster communication.	on 🗸
On the steady phase the TDMA-based solutions are used for the inter-cluster communication	on
Add individual feedback	

✓ The LEACH protocol uses "DYNAMIC" cycles	/ 1
CDMA	
○ FDMA	
TDMA	✓
OFDMA	
Add individual feedback	
✓ What is full form of SMACS	/1
Scheduled Media Access Control Protocol	
Scriedaled Media Access Control Protocol	
Self-Organizing Medium Access Control for sensor network	✓
	~
Self-Organizing Medium Access Control for sensor network	✓

✓ What types of links exists in SMACS	/1
Unidirectional	
Bidirectionals	
Both unidirectional and bidirectional	✓
○ None of all	
Add individual feedback	
✓ 802.11 wireless networking uses what method as the media access m	nethod? / 1
○ CSMA/CD	
○ CTS/RTS	
CSMA/CA	✓
○ CSCD/CA	
Add individual feedback	
RTS/CTS is called as	1 point
Waiting period	
Contention Period	
Running period	
None of these	
Clear sele	ection

×	Which of the following statements are true:		0 / 1
0	In Concurrent processes multiple processors execute instructions at performance.	different time for better	×
\circ	In Concurrent processes same processes are executed at the same t	ime on a single CPU	
\circ	In Concurrent processes multiple processes are executed at the same	e time on a single CPU	
\circ	None of the above		
Corre	ect answer		
0	In Concurrent processes multiple processes are executed at the same	e time on a single CPU	
Addi	ndividual feedback		
Wh	ich of the following are components of a <mark>sensor</mark> network?	1 point	
0	Sensor nodes		
\circ	Sensors		
\circ	Gateways		
•	All of the above		
		Clear selection	
	ch of the following field in IPv4 datagram is not related to mentation	1 point	
\circ	a) Flags		
\circ	b) Offset		
•	d) Identifier		
\circ	c) Header		
\circ	Other:		
		Clear selection	

The	steady phase in Leach protocol consists of:	1 point
•	First Advertisement phase, then Cluster setup phase and final Steady phase	
\bigcirc	First Cluster setup phase, then Advertisement phase and final Steady phase	
\bigcirc	First Steady phase, then Cluster setup phase and final Advertisement phase	
\bigcirc	None of the all	
	Clear sel	ection