	(2½ Hours	s)	[Total Marks: 75]		
<ul><li>2) Figures to the right</li><li>3) Illustrations, in-de</li></ul>	t indicate marks. pth answers and diagra	ams will be appreciate	ed.		
Attempt All(Each	(15N				
1. What is the access point (AP) in wireless LAN?					
(a) wireless devices itself	(b) device that allows wireless devices to connect to a wired network	(c) both device that allows wireless devices to connect to a wired network and wireless devices itself	(d) none of the mentioned		
2. A transceive is said to be in an	er that is ready to recei	ve but is not currently	y receiving anything		
(a) idle state	(b) sleep state	(c) transmit state	(d) receive state		
3. A GSM sys	tem consists of	_ subsystems.			
(a) five	(b) four	(c) three	(d) two		
4. Sky wave ran	ges from				
(a) above 100 MHz	(b) > 30 MHz	(c) < 2 MHz	(d) 2 MHz-30 MHz		
5. TCP is a conn	ection-oriented protoco	ol.			
(a) true		(b) false			
Fill in the blank wit { structure , Physica 1. A sensor i	d, Data gathering, isot network is designed	ropic radiator , mobil			
<ul><li>2. The source</li><li>3. A theoretical</li></ul>	of an event can be al reference antenna is	the	eted by the sensor nodes		
to the base s	station.				
Answer the following 1. What Tiny 0. What does a 3. What is sha 4. What is Dat	Answer the following in one line.  1. What Tiny Os?  2. What does a gateway node do?  3. What is shadowing?  4. What is Data dissemination?				
	2) Figures to the right 3) Illustrations, in-de 4) Mixing of sub-que  Attempt All(Each of the content of the co	1) All questions are compulsory. 2) Figures to the right indicate marks. 3) Illustrations, in-depth answers and diagra 4) Mixing of sub-questions is not allowed.  Attempt All(Each of 5Marks)  1. What is the access point (AP) in various devices allows wireless itself devices to connect to a wired network  2. A transceiver that is ready to receive is said to be in an  (a) idle state (b) sleep state  3. A GSM system consists of  (a) five (b) four  4. Sky wave ranges from  (a) above 100 (b) > 30 MHz  MHz  5. TCP is a connection-oriented protocomplete (a) true  Fill in the blank with the following option (a) true  Fill in the blank with the following option (a) true  Fill in the blank with the following option (a) true  The source of an event can be	2) Figures to the right indicate marks. 3) Illustrations, in-depth answers and diagrams will be appreciate 4) Mixing of sub-questions is not allowed.  Attempt All(Each of 5Marks)  1. What is the access point (AP) in wireless LAN?  (a) wireless (b) device that (c) both device that devices allows wireless allows wireless itself devices to connect to a wired network to a wired network and wireless devices itself  2. A transceiver that is ready to receive but is not currently is said to be in an  (a) idle state (b) sleep state (c) transmit state  3. A GSM system consists of subsystems.  (a) five (b) four (c) three  4. Sky wave ranges from  (a) above 100 (b) > 30 MHz (c) < 2 MHz  MHz  5. TCP is a connection-oriented protocol.  (a) true (b) false  Fill in the blank with the following option {     structure, Physical, Data gathering, isotropic radiator, mobil 1. A sensor network is designed to collect information environment.  2. The source of an event can be		

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## Paper / Subject Code: 87001 / Wireless Sensor Network & Mobile

Q. 2	Attempt the following (Any THREE)(Each of 5Marks)	(15M)
(a)	Define & explain any five tasks of transceivers	1000
(b)	Explain sensor node with its different categories	0.00
(c)	What are different optimization goals for Wireless Sensor Networks?	8000
(d)	List & explain different types of application of WSN	12 S S S
(e)	What are different functionalities that a service interface should provide in WSN?	
(f)	Explain the block diagram of a sensor node	
Q. 3	Attempt the following (Any THREE) (Each of 5Marks)	(15M)
(a)	Explain different performance requirements of MAC protocol	
(b)	Explain periodic Listen & sleep operation in S-MAC	
(c)	List & Explain different routing strategies in WSN	
(d)	How Power-efficient gathering in sensor information systems (PEGASIS) routing protocol works?	P. C.
(e)	What are the issues need to consider to design transport protocols for WSNs	
(f)	Explain SPIN protocol	
Q. 4	Attempt the following (Any THREE) (Each of 5Marks)	(15M)
(a)	Explain range for signal propagation in wireless transmission	
(b)	What are the Tele services provided by GSM?	
(c)	With block diagram Explain System architecture of UMTS	
(d)	Write difference between GEO, LEO, MEO?	
(e)	Explain is HSCSD( High Speed circuit Switched data)	
(f)	Explain features of DECT System	
Q. 5	Attempt the following (Any THREE) (Each of 5Marks)	(15M)
(a)	Discuss Salient features of TinyOS.	
(b)	How Congestion Detection and Avoidance works?	
(c)	Discuss any 2 Mobile and wireless devices.	
(d)	Write a short note on Radio subsystem and its components.	
(e)	Discuss the advantages of cellular systems with small cells.	

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