		NI. 1104 A				R	13
	Code	NO: 118AA JAWAHA]	RLAL NEHRU T	ECHNOLOGIC	AL UNIVERSI	ΓY HYDERAI	BAD
			B. Tech IV Year	II Semester Exa	minations, June	- 2018	
			ADHOC	AND SENSOR	NETWORKS		
sand sand	Time:	3 hours	Comb	Juter Science and	Engineering)	Max. Ma	rks: 75
	Note:	This questio	n paper contains ty	R13   TECHNOLOGICAL UNIVERSITY HYDERABAD   r II Semester Examinations, June - 2018   CAND SENSOR NETWORKS   puter Science and Engineering)   Max. Marks: 75   two parts A and B.   a carries 25 marks. Answer all questions in Part A. Part B   in carries 25 marks. Answer all questions in Part A. Part B   in y one full question from each unit. Each question carries 10   is sub questions.   PART - A   (25 Marks)   istics of a MANET.   [2]   through put is inversely proportional to the number of hops".   [3]   casting   (21)   through put is inversely proportional to the number of hops".   [3]   owith sensor network failures?   [2]   el Application layer support for specific applications of WSNs   hid Party (TTP) in authentication?   [3]   ode. [2]   of Sensor Network Hardware   [3]   ode level simulators for a WSN.   [3]   between Topology-based routing and Position-based routing mple routing motocols in each category.   [10]   OR			
		consists of 5	Units. Answer an	v one full question	on from each unit	. Each question	n carries 10
		marks and n	have a, b, c as	sub questions.			
				PARI - A		·····	(25 Marks)
	1.a)	Illustrate im	portant characteris	tics of a MANET			[2]
	b)	Justify the s	statement "MANE	ETS are more pro	one to physical s	security threats	than fixed
	c)	Cable networ	rks". icasting and Geo-c	easting			[3]
	d)	Specify the	reason for "TCP t	hrough put is inv	ersely proportion	al to the numbe	er of hops".
	``			and and a		and and	[3]
	e) f)	How MAC I Specify the	protocols cope up v	Application lave	rk failures?	rific application	[2] as of WSNs
	1)	speeny me		rippileation laye	r support for spec		[3]
	g)	What is the	role of Trusted Thi	rd Party (TTP) in	authentication?		[2]
	h) i)	Illustrate the	three categories of the types of nest coordinates the types of the sector coordinates the sector coordinates the types of the sector coordinates the type of type of the type of type of the type of the type of t	f Sensor Network	t Hardware		[3] [2] <sup>  </sup>
	j)	Specify the o	components in noc	le level simulator	s for a WSN.		[3]
1999 (1999) 1999 (1999)		(header) (header)	in the second		Transf Transf	(fraue) - (fraue)	Second Second
				PARI - B			(50 Marks)
	2.	Specify the	major differences	between Topolog	y-based routing a	and Position-ba	sed routing
		approaches	with suitable exam	ple routing proto	col in each catego	ory.	[10]
	3	Specify the	working principles	of the following	OoS Routing Pro	tocols	
	0.	a) Core Extr	action Distributed	Ad hoc Routing	(CEDAR)		and and
		b) Positiona	ll Attribute based I	Next-hop Determi	nation Approach	(PANDA)	[5+5]
	4.	Explain the	functioning of the	following Tree-b	ased Multicast Ro	outing Protocols	S
		a) AMRIS	b) MAODV c	) LAM d) L	GT		[10]
	5	D	J_4_:114 N(-1;1	OR		A 1 1	[10]
	Э.	Describe in	detail about Mobil	ity-related solution	ons for ICP over .	Ad noc networl	(s.[10]
····	6.	Explain clus	tering architecture	of WSNs and the	e importance of th	e density of the	e WSN
		Network for	the effective use i	n its applications.			[10]
	7.	Explain the	operation of follow	<b>UK</b> ving WSN routing	g algorithms		
		a) Minimun	n Cost Forward Al	gorithm (MCFA)			
		b) Low-Ene	rgy Adaptive Clus	tering Hierarchy	Algorithm (LEA	CH).	[5+5]
		and and					

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8. 9. 10. 11.	Describe in detail the concept of N-party Diffie-Hellman key agreement used for key management. [10] OR Discuss about Node-Level software platforms. [10] Describe TinyGAL programming model with its implementation details. [10] OR Compare and Contrast NS-2 simulator and TOSSM simulator in all aspects of their									
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