

Year 3, Semester I (2020) IT3010 – Network Design and Management

Answer Sheet

Name :Wickramasinghe M.L.

Registration Number :IT17119986

Declaration of the Student

I agree that I am aware of SLIIT examination rules and regulations, and by not adhering I would have to face penalties according to the sentences of the offence.

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Year 3, Semester I (2020) IT3010 – Network Design and Management

Question 1

#	Answer (provide your answer in this column respective row)	Marks (to be filled by
a)	Poor Network Performance: Monitoring network devices and their	_out of 4
	associated links.	
	Slow Performance: Removing some of the extensions from the browser,	
	removing unused applications.	
	Lake of Security: Controlling access points which are given access to	
	sensitive data.	
	Devices conflict each other – Manually applying policies and configure	
	devices remotely.	
	Cost: Control budget and remove unnecessary cost	
b)	Detailed description of everything	_out of 4
	Complex networks are difficult to visualize	
	Big rewards	
	Time Consuming	
c)	Devices conflict each other – Configuration Management	_out of 4
	- Increase size of the network	
	Lake of Security: Security Management	
	Poor Network Performance: Performance Management	
d)	Identifying the sensitive information to be protected.	_out of 4
	Finding the access points(vulnerabilities)	
	Securing the access points	
	Maintaining the secure access points	
e)	With all of the desired monitors in place, the next step is to let the monitors	_out of 4
	run and build up date points. Many experts cite seven days as an effective	
	monitoring window to allow performance trends to appear.	

\sim End of the Answer to Question 1 \sim

Name	Wickramasinghe M.L.	
Registration	IT17119986	2
Number		

Question 2

#	Answer (provide your answer in this column respective row)	Marks (to be filled by examiner)
a)	MIB Tree 1 2 1 2 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 4 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	_out of 8
	SNMP-Get-Bulk Request	
	1 MADHU GetBulkRequest 13500 - - 2 2 1.1.1.1 1.1.1.2 1.2.1.1 1.2.1.3	
	Reply	
	1 MADHU GetBulkRequest 13500 - - 2 2 1.1.1.2 17 1.2.1.2 83 1.2.1.3 91 1.2.2.1 28 1.2.2.2 3V	
	Non repeaters – 1.1.1.1 and 1.1.1.2 GetNextRequest of 1.1.1.1 1.1.1.2 = 17 GetNextRequest of 1.1.1.2 1.1.2.1 = 11	
	Max Repetitions = 2 GetNextRequest x 2 of 1.2.1.1 GetNextRequest x 2 of 1.2.1.1 1.2.1.2 = 83 and 1.2.1.3 = 91 1.2.2.1 = 28 and 1.2.2.2 = 3V	

Name	Wickramasinghe M.L.	
Registration	IT17119986	3
Number		



b) i)	Perform snmpwalk and create MIB tree text file. (Yes/No)	
b) ii)	Upload MIB tree text file with correct naming context. (Yes/No)	_out of 2
b) iii) a.	SNMPV2	_out of 1
b) iii) b.	OCTET STRING SNMP	_out of 1
	04 04 53 4E 4D 50	
	T L V	
b) iii) c.	INTEGER 3C0310	_out of 1
b) iii) d.	02 01 00(Integer 0) – Error Status	_out of 1
	02 01 00(Integer 0) – Error Index	
	No errors	
b) iii) e.	OID: 1.3.6.1.2.1.1.3.0	_out of 2
	OID: 1.3.6.1.2.1.1.5.0	
b) iii) f.	SNMP_Manager	_out of 2
	Because of PDU type is a GetNextRequest PDU. So it is created by	
	SNMP_Manager. (Request the information of a specific OID from the	
	agents)	
b) iv) a.	SNMPV2	_out of 1
b) iv) b.	OCTET STRING SNMP	_out of 1
b) iv) c.		_out of 1
b) iv) d.	OID=1.3.6.1.2.1.1.3.0, Type=TimeTicks, Value=1:48:38.20	_out of 3
	OID=1.3.6.1.2.1.1.5.0, Type=OctetString, Value=DESKTOP-	
	E2GI28O	
b) v)	30 26 02 01 02 04 04 53 4D 4E 50 A0 1B 02 03 3C 03 10 02 01 00 02	_out of 6
	01 00 30 0E 30 0C 06 08 2B 06 01 02 01 0B 01 00 05 00	
	Version – SNMPV2	
	Community String – OCTET STRING SMNP	
	PDU type – GetRequest	
	Error status – 0	
	Error Index – 0	
	This is not a SNMP message, Community String is a SMNP.	

Name	Wickramasinghe M.L.	_
Registration	IT17119986	4
Number		



~ End of the Answer to Question 2 ~

Question 3

#	Answer (provide your answer in this column respective row)	Marks (to be filled by examiner)
a)	Size of the information	_out of 2
	Character of the information	
	Read-to-write ratio	
	Search Capability	
	Standards-based access	
b)	DN and password provided.	_out of 3
	Clear text or BASE 64 encoded.	
c) i)	dn: cn=Gayan ,sn=Rathnayake, ou=Civil, ou=Engineering, dc=sliit,	_out of 3
	dc=lk	
	dn: cn=Nandana, ou=IT, ou=Computing, dc=sliit, dc=lk	
	dn: cn=Nisha, ou=Marketing, ou=Business, dc=sliit, dc=lk	
c) ii)	dn: ou=Engineering, dc=sliit, dc=lk	_out of
	dn: ou=Electronic, ou=Engineering, dc=sliit, dc=lk	10
	dn: ou=CSN, ou=Computing, dc=sliit, dc=lk	
	dn: ou=Business, dc=sliit, dc=lk	
	dn:ou=HR, ou=Business, dc=sliit, dc=lk	
	dn: uid=TRuwan, ou=Electronic, ou=Engineering, dc= sliit, dc=lk	
	changetype: add	
	ObjectClass: organizationalPerson	
	Description:Lecturer	
	cn: Ruwan Thilakarathna	
	sn: Thilakarathna	
	mail: <u>ruwan.t@sliit.lk</u>	
	TelephoneNo: 0112345691	

Name	Wickramasinghe M.L.	_
Registration	IT17119986	5
Number		



	dn: uid=WMavin, ou=CSN, ou=Computing, dc=sliit, dc=lk	
	changetype: add	
	ObjectClass: inetOrgPerson	
	Description:Instructor	
	cn: Mavin Wejenayaka	
	sn: Wejenayaka	
	mail: mavin.w@sliit.lk	
	TelephoneNo: 0114569513	
	dn: uid=LLakshi, ou=HR, ou=Business, dc=sliit, dc=lk	
	changetype: add	
	ObjectClass: Person	
	Description: Senior Lecturer	
	cn: Lakshi Lekamage	
	sn: Lekamage	
	mail: <u>lakshi.l@sliit.lk</u>	
	TelephoneNo: 0112345789	
c) iii)	ldapmodify –a –x D "cn=Admin, dc=sliit, dc=lk" –w secret –H	_out of 2
	ldap:// -f Initial.ldif	
c) iv)	dc = sliit,dc = lk	_out of 5
	ou= Engineering ou = Computing ou = Business	
	ou = Electronic ou = Civil ou = CSN ou = IT ou = Marketing ou = HR	
	ou = Electronic ou = Livil ou = King ou = Ni o	
	uid = TRuwan cn = Lahiru cn=Anil cn = Gayan,sn = Rathnayake uid=WMavin uid=PD_PC34 cn = Nandana cn = Ari cn = Nisha cn=Sunil uid = LLakshi cn = Ranjula	

Name	Wickramasinghe M.L.	
Registration	IT17119986	6
Number		



~ End of the Answer to Question 3 ~

Question 4

#	Answer (provide your answer in this column respective row)	Marks (to be filled by examiner)
a) i)	Command execution full terminal screenshot should be pasted here. Command Prompt	(to be filled by
a) ii)	By executing this command we can find out the local computer name.	_out of 2
	This command is used to set current hostname of the system or display	_
	the current host name.	
a) iii)	FQDN – Fully Qualified Domain Name	_out of 2
	An FQDN is a most complete domain name that identifies a host or	
	server. FQDN is the complete domain name for a specific computer, or	
	host, on the internet. The FQDN can be broken down into four parts;	
	1. Hostname: www, mail, ftp etc.	
	2. Domain: apple, Microsoft, ibm, etc.	
	3. Top level Domain: .com, .net .org, .co, etc.	
	4. Trailing period: the final period in an FQDN indicates the end	
	of the name, implying the previous string is the TLD.	
b) i)	No, I Disagree with the statement	_out of 1
<i>D)</i> 1)	110,1 Disagree with the statement	_

Name	Wickramasinghe M.L.	_
Registration	IT17119986	7
Number		



	entire network as it documents the entire network. After this				
	assessment and the baseline, the infrastructure of the physical and data				
	link layer. So Assess and refer network traffic and protocols. After that,				
	evaluate and base the platforms, operating system and applications.				
	Finally, perform a safety assessment. Without network mapping for the				
	first time, an assessment can skip a part of the network and the				
	assessment and referral stage will be incomplete and incorrect.				
c)	DHCPDISCOVER : Sends a broadcast message in the network to				
	discover the DHCP server.				
	DHCPOFFER: Sends a message from DHCP server to DHCP client				
	offering a vacant IP address from its pool.				
	DHCPREQUEST: Sends message requesting its specific address				
	(192.168.1.0) from DHCP server.				
	DHCPACK: : DHCP server sends accept acknowledgement message to				
	the client indicating the IP address request is correct for IP network				
	pool served by the DHCP server and grant the requested IP address				
	192.168.1.0.				
	DHCPNAK: DHCP server sends negative acknowledgement message				
	to the client indicating the IP address request is not correct for IP				
	network pool served by the DHCP server.				
	DHCP Client(PC-A) 192.168.1.0 DHCP Server 192.168.1.5				
	DHCPDISCOVER				
	DHCPOFFER				
	DHCPREQUEST				

Name	Wickramasinghe M.L.	
Registration	IT17119986	8
Number		



	DHCPNAK or DHCPACK	
d)	Forward Lookup Zone Configuration	_out of 8
	Forward.ndm.sub	
	\$TTL 86400	
	@ IN SOA dnsServer.ndm.com. root.ndm.com.	
	(
	IT17119986 ;Serial	
	3600 ;Refresh	
	1800 ;Retry	
	604800 ;Expire	
	86400) ;Minimum TTL	
	@ IN NS dnsServer.ndm.com	
	@ IN A 192.168.10.1	
	@ IN A 192.168.10.100	
	dnsServer IN A 192.168.10.1	
	client IN A 192.168.10.100	
	-End of forward lookup-	

Name	Wickramasinghe M.L.	
Registration	IT17119986	9
Number		



Year 3, Semester I (2020) IT3010 – Network Design and Management

Reverse Lookup	Zone Configuration
reverse.ndm.sub	
\$TTL 864	400
@ IN SO.	A dnsServer.ndm.com. root.ndm.com.
(
IT171199	86 ;Serial
3600	;Refresh
1800	;Retry
604800	;Expire
86400) ;Minimum TTL
@ IN NS	dnsServer.ndm.com
@ IN PTI	R ndm.com
dnsServer	IN A 192.168.10.1
client IN A	192.168.10.100
1 IN PTR o	InsServer.ndm.com
100 IN PT	R server.ndm.com
	-End of reverse lookup-

\sim End of the Answer to Question 4 \sim

Name	Wickramasinghe M.L.	4.0
Registration	IT17119986	10
Number		