Code No.: **30517**

MR13

MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)

(Affiliated to JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD)

Gundlapochampally (H), Maisammaguda (V), Medchal (M), Medchal-Malkajgiri (Dist), Hyderabad

III B.TECH I SEMESTER SUPPLEMENTARY EXAMINATIONS, MAY - 2019

Subject: **Information Security**

Branch: **CSE**

Time: 3 hours **Max. Marks: 75**

PART – A

I. Answer **ALL** questions of the following **5x1Mark=5 Marks**

1. What is meant by the term "Buffer Overflow"?
2. What is Block Cipher?
3. What is E-Mail Virus?
4. List out the steps in Secure Electronic Transactions?
5. What is IDS?

II. Answer **ALL** questions of the following **10x2Marks=20 Marks**

1. Write the differences between threat and attack
2. What is a spoofing attack?
3. What are the basic functions used in encryption algorithms?
4. Write about hashing
5. List out the applications of public key cryptosystems?
6. In the context of Kerberos, what is a realm?
7. List out the applications of IPSec?
8. Write a short note on IP Security Architecture?
9. List out different types of Viruses
10. What are the uses of SNMP?

PART-B

Answer **ALL** questions of the following **5x10 Marks= 50Marks**

1. a) What is security service? Describe various categories of security services.
   b) Explain about route table modification.

OR

2. a) Explain about confidentiality and integrity
   b) Describe about buffer overflow with an example
3. Explain Location of Encryption Devices

OR

4. Describe detail how the RSA algorithm works. Also discuss different applications with an example.
5. Define Cryptography? List out and explain the various principles of Public Key Cryptography?

OR

6. Explain Pretty Good Privacy (PGP) cryptographic functions with a supporting diagram.
7. Explain IP Security Architecture.

OR

8. Describe the SSL protocol stack with example.
9. a) Describe the overview of SNMPV3 Protocol Architecture?
   b) What are Trusted Systems? What is its significance?

OR

10. a) What is SNMP Protocol? Explain SNMPV1 protocol community facility?
    b) Explain about different Firewall Design principles?

Code No.: **30516/40517** | **MR13/MR14**

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III B.TECH I SEMESTER SUPPLEMENTARY EXAMINATIONS, MAY - 2019

Subject: **Compiler Design**

Branch: **Common to CSE &IT**

Time: 3 hours **Max. Marks: 75**

PART – A

I. Answer **ALL** questions of the following **5x1Mark=5 Marks**

1. Distinguish between Interpreter and Compiler?
2. Write the stands for YACC
3. Write the types of LR parsers.
4. List the methods of Loop optimization?
5. What is the significance of Code Generator in Compiler Design?

II. Answer **ALL** questions of the following **10x2Marks=20 Marks**

1. Briefly explain the problems with Top down Parsing?
2. Explain the lexical analyzer.
3. What is left most derivation and rightmost derivation?
4. Define bottom up parsing and handle.
5. What is the role of Type checker?
6. Construct abstract syntax tree.
7. Write a short notes on Data Flow properties?
8. What is an induction variable? Give an example.
9. Describe the Object Code forms?
10. Write different object code forms.

PART-B

Answer **ALL** questions of the following **5x10 Marks= 50Marks**

1. Consider the following grammar
   E->T+E/T
   T->V*T/V
   V->id Write down procedures for non terminals of the grammar to make a Recursive Descent parser?

OR

2. a. Explain analysis and synthesis model of compilation.
   b. Write short notes on input buffering.
3. Construct LALR parsing table for the following grammar
   S->L=R|R
   L->*R|id
   R->L

OR

4. Construct Operator Precedence parser for the grammar
   S->iEtS/iEtSeS/a
   E->b/c/d where a,b,c,d,e,i,t are terminals
5. Write the Quadruple, Triple, Indirect Triple for the statement a:=b*-c+b*-c

OR

6. Write notes on a) Abstract syntax Tree b) Polish Notation
7. Explain how following expression can be converted in a DAG a+b*(a+b)+c+d

OR

8. What is flow graph and explain about the global data flow analysis.
9. Explain the Register allocation and Assignment in detail?

OR

10. Describe in detail about the concept of DAG for register allocation with an appropriate example.

Code No.: **30518**

MR13

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III B.TECH I SEMESTER SUPPLEMENTARY EXAMINATIONS, MAY - 2019

Subject: **Computer Communication**

Branch: **Common to CSE &IT**

Time: 3 hours **Max. Marks: 75**

PART – A

I. Answer **ALL** questions of the following **5x1Mark=5 Marks**

1. What are the two interfaces provided by protocols?
2. List various steps followed in checksum generation.
3. What are the three pieces of information in the configuration of messages?
4. Explain about Segmentation.
5. What is the need of cryptography in the computer networks?

II. Answer **ALL** questions of the following **10x2Marks=20 Marks**

1. What are the features provided by layering?
2. What are the different transmission media?
3. What is the purpose of hamming code?
4. Write about IEEE802.3 briefly.
5. Explain Bridge.
6. Where do we get the Congestion?
7. What are the advantages of UDP over TCP?
8. Give main idea of UDP.
9. What are the Network managements?
10. How is secret key different from public key?

PART-B

Answer **ALL** questions of the following **5x10 Marks= 50Marks**

1. Explain the terms: crossbar switch, packet switch and banyan switch.

OR

2. Discuss about ISO/OSI reference model with neat Diagram.
3. Explain in detail about Point to Point Protocols (PPP)?

OR

4. a) Explain the sliding window protocol with a neat sketch.
   b) Explain the design issues of data link layer.
5. How is subnet mask useful in IP addressing? Explain with an illustration.

OR

6. a) What is tunneling? When it is used? Is it used in wireless LAN's? **[3+2+1]**
   b) Discuss about Internet work Routing. **[4]**
7. Draw the TCP header format and explain the function of each field?

OR

8. Discuss about User Data Gram Protocol (UDP)?
9. Write a brief note on the following: DNS, HTTP and FTP.

OR

10. List and discuss the types of DNS records?