Hall Ticket Number :

R-11/R-13

Code: 1G153

III B.Tech. I Semester Supplementary Examinations November 2016
Computer Networks
(Common to CSE & IT)

Max. Marks: 70   Time: 3 Hours

Answer *any five* questions
All Questions carry equal marks (14 Marks each)
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1. a) Draw and explain OSI reference model in detail   8M
    b) Discuss wireless LANs   6M

2. a) What is switching? Explain circuit switching and packet switching networks   7M
    b) What is PSTN? Explain structure of the telephone system   7M

3. a) What are the design issues of data link layer? Explain   7M
    b) Explain one bit sliding window protocol   7M

4. a) Discuss channel allocation problems   7M
    b) Explain 802.11 protocol stack   7M

5. a) What is flooding? Explain hierarchical routing   7M
    b) What is congestion control? Explain congestion prevention policies   7M

6.   Discuss the network layer in the internet   14M

7.   What are the transport layer services? Explain the difference between TCP
        and UDP   14M

8. a) Discuss the world wide web   7M
    b) Write short notes on multimedia   7M

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III B.Tech. I Semester Supplementary Examinations November 2016
Software Engineering
(Information Technology)

Max. Marks: 70   Time: 3 Hours
Answer *all five* units by choosing one question from each unit (5 x 14 = 70 Marks)
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1.	a)	Explain about Legacy software	7M
	b)	Discuss about The Capability Maturity Model Integration(CMMI)	7M
2.	a)	Explain about Incremental Process models	7M
	b)	Explain about Evolutionary Process models	7M
3.	a)	Discuss about the Requirements validation	7M
	b)	Explain about Behavioral models	7M
4.	a)	Discuss about pattern based Software design	7M
	b)	Explain about Architectural styles and patterns	7M
5.	a)	Explain about the golden rules	7M
	b)	Explain about Designing conventional Components	7M
6.	a)	Discuss about White Box testing.	7M
	b)	Explain about Metrics for Analysis Model	7M
7.	a)	Explain about Metrics for software quality	7M
	b)	Explain about Risk identification	7M
8.	a)	Discuss about ISO 9000 quality standards	7M
	b)	Explain about Statistical Software quality Assurance	7M

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III B.Tech. I Semester Supplementary Examinations November 2016
Information Storage Management
(Information Technology)

Max. Marks: 70   Time: 3 Hours

Answer *any* **five** questions
All questions carry equal marks (**14Marks** each)
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1.   What do you mean by Electronic Commerce? Explain in detail about the   generic structure for Electronic Commerce and List out the Merits of E-Commerce.   14M

2.   Explain in detail about Mercantile Model from Consumer's Perspective.   14M

3.   How Smart Card payment system is better than Credit Card payment system? Explain with an example   14M

4.   a)   Explain in detail about EDI layered architecture.   7M

     b)   Discuss about Value Added Networks.   7M

5.   a)   What is an Automation Customization? Explain Clearly.   7M

     b)   Discuss about Work-Flow Automation and Co-Ordination.   7M

6.   Demonstrate neatly about Wireless Communication Platforms for LANs and WANs.   14M

7.   a)   What do you mean by a Digital Documents? List out and Explain various categories of Digital Documents.   7M

     b)   Demonstrate about the On-line marketing process with examples.   7M

8.   a)   What is Information filtering? What are its features? Discuss.   7M

     b)   Discuss with a suitable example about Information Retrieval in E-Commerce.   7M

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Code: 1G454

III B.Tech. I Semester Supplementary Examinations November 2016
Unix Programming
(Information Technology)

Max. Marks: 70   Time: 3 Hours

Answer any *five* questions
All Questions carry equal marks (14 Marks each)
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1. a) Explain the structure of Unix operating system?   5M

   b) Write short notes on the following with example?
      i. Online Documentation command
      ii. Date and Time command
      iii. Password Command   9M

2. a) Discuss absolute pathnames and relative pathname? How to distinguish between an absolute pathname from a relative pathname?   6M

   b) With a suitable example, explain the following?
      i. Permission codes
      ii. du
      iii. telnet.
      iv. join   8M

3. a) Draw the workflow of Unix Session and briefly explain?   6M

   b) Explain the following with a suitable example?
      i.   tee command
      ii. Predefined variables
      iii. tr command
      iv. cmp command   8M

4. a) Briefly discuss the summary of Local commands in vi editor   5M

   b) Explain in detail about the family of utilities in grep family   9M

5. a) Briefly explain the following in the awk command
      i. Execution
      ii. scrips   6M

   b) i. Write an awk command that print all the line
      ii. Using while loop in awk command to calculate the student averages   8M

6. a) Explain the features of korn shell   7M

   b) Explain history command with example and different options?   7M

7. a) i. With suitable example, explain trash file and terminal file
      ii. Briefly explain startup and shutdown Scripts   8M

   b) Explain the file expressions in C Shell programming?   6M

8. a) Write the syntax and briefly explain the following system calls?
      i.   open
      ii. read
      iii. lseek   6M

   b) With a program explain various Directory API   8M

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III B.Tech. I Semester Supplementary Examinations November 2016
Microprocessors and Interfacing
(Common to CSE & IT)

Max. Marks: 70   Time: 3 Hours

Answer *any **five*** questions
All Questions carry equal marks (**14 Marks** each)
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1.	a)	Explain different registers in 8086	10M
	b)	Discuss the advantages of segmentation	4M
2.	a)	Write alp to find the largest number in an array of words	4M
	b)	Using string instruction and assembler directives insert the word "college" in "I am student" after I am.	10M
3.	a)	Differentiate I/O and memory mapped I/O interfacings.	4M
	b)	Explain the 8255 block diagram	10M
4.	a)	List the differences between SRAM and DRAM	4M
	b)	Design the interfacing structure to connect four 8K RAMs and two 8K ROMs to 8086 processor.	10M
5.	a)	Explain the structure of interrupts in 8086.	7M
	b)	With neat block diagram discuss bout 8253.	7M
6.	a)	Write a program to transfer data serially with odd parity, 7-bit character code, one stop bit at speed of 16x.	7M
	b)	What is the necessity of RS232 to TTL conversion? How to convert.	7M
7.	a)	Find the differences between real and protected mode.	4M
	b)	Write short notes on how the features implemented in Pentium processor improve the performance.	10M
8.	a)	Explain internal memory architecture of 8051.	10M
	b)	Write the program to multiply two numbers in 8051.	4M

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Code: 1G451

R-11/R-13

III B.Tech. I Semester Supplementary Examinations November 2016
Automata and Compiler Design
(Information Technology)

Max. Marks: 70   Time: 3 Hours

Answer *any **five*** questions
All questions carry equal marks (14 Marks each)
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1. a) What are the benefits and liabilities of FA? Design a DFA to accept the language L= {w n_a(w) 1,n_b(w)=2}.   7M

   b) Define a regular expression? Obtain a regular expression for L= {w: string end with ab or ba where w € {a ,b}*}.   7M

2. a) How is input buffering implemented in lexical analysis? Explain briefly.   4M

   b) Construct the predictive parser table for the following grammar and take an input as id*id*id parse a string.

   E TE , E +TE /ε, T- FT , T *FT / ε , F- (E)/id   10M

3. a) Design SLR parser for the following grammar.

   E E+T, E T, T T*F, T F, F (E) , F id.   10M

   b) Briefly explain the LR parsing algorithm.   4M

4. a) Explain the translator process using the following example id, id: real.   6M

   b) Write a syntax directed translator scheme for desler calculator grammar.

   L En, E E+T, E T, T T*F, T F, F (E), F digit.   8M

5. a) Discuss briefly about overloading of function and operator with suitable example.   6M

   b) Suppose that the type of each identifier is a sub rang of integers for expression with the operator +,-,*,/ and mod as in Pascal write type checking rules that assign to each sub expression ,the sub range its value must lie in.   8M

6. a) Explain the process of organizing a symbol table for a block structured language.   7M

   b) Discuss about the stack allocation strategy of run time environment with example.   7M

7. a) Explain how copy propagation can be done using data flow equation   6M

   b) Write an algorithm to compute reaching definition informatory for a flow graph.   8M

8. a) What are the applications of DAG? Explain how the following expression can be converted in a DAG a+ b*(a*b) + c+ d.   7M

   b) Explain the simple strategy to generate assembly code form quadruples with example.   7M

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