Hall Ticket Number :										

Code : 1G451 **R-11 / R-13**

III B.Tech. I Semester Regular & Supplementary Examinations Nov/Dec 2015

Automata and Compiler Design

(Information Technology)

Max. Marks: 70 **Time: 03 Hours**

Answer *any five* questions

All Questions carry equal marks (14 Marks each)

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1. a) Write about DFA (Deterministic Finite Automata) with proper Example? 7M

   b) Give Applications of Finite Automata? 7M

2. a) Write about Phases of compiler. 7M

   b) Construct the LL(1) parsing table for the below grammar?

   E→E+T / T

   T →T*F / F

   F→ ϵ / id 7M

3. Construct CLR Parsing for the below grammar and check whether the string is W=aadd accepted or not?

   S→cc

   C→ac

   C→d 14M

4. a) Write syntax directed translation in details? 7M

   b) Write different forms of Intermediate code? 7M

5. Write about type conversions and write about polymorphic function? 14M

6. Write about Storage Organisation and allocation strategies? 14M

7. a) Write about Principle source of optimization and explain its types? 7M

   b) Write about peep-hole Optimization? 7M

8. Write about Machine dependent code generation in details with proper examples? 14M

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Hall Ticket Number :										

Code : 1G355 **R-11 / R-13**

III B.Tech. I Semester Regular & Supplementary Examinations Nov/Dec 2015

Microprocessors and Interfacing

(Common to CSE & IT)

Max. Marks: 70 **Time: 03 Hours**

Answer *any five* questions

All Questions carry equal marks (14 Marks each)

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1. a) With a neat architectural diagram explain the functioning of an 8086 microprocessor. 9M
   b) Discuss about register organization of 8086 5M

2. a) Write an ALP in 8086 to add five 16-bit numbers and result is of 24 bit 10M
   b) Write an ALP in 8086 to multiply two 16 bit numbers 4M

3. a) With an example, explain the need for 8255 PPI in microprocessor based systems 7M
   b) Discuss about mode 0 operation of 8255 with relevant configuration diagrams 7M

4. a) Explain the need for DMA. Discuss in detail about DMA data transfer method 7M
   b) With an example explain how static RAMs are interfaced to 8086. 7M

5. a) What are the steps that 8086 will take when it responds to an interrupt? 7M
   b) With a neat sketch explain the operation of 8259A in cascaded mode. 7M

6. a) Define mode word register of 8251 for sync mode. 6M
   b) Explain the advantages of using the USART chips in microprocessor based systems. 8M

7. a) Explain about 80286 processor 7M
   b) Describe the salient features of 80386. 7M

8. a) Explain the register set of 8051. 7M
   b) What is meant by quasi-bi-directional port? Why is Port 0 of 8051 true bidirectional? 7M

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Hall Ticket Number :										

Code : 1G153 **R-11 / R-13**

III B.Tech. I Semester Regular & Supplementary Examinations Nov/Dec 2015

Computer Networks

(Common to CSE & IT)

Max. Marks: 70 **Time: 03 Hours**

Answer *any five* questions

All Questions carry equal marks (14 Marks each)

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1.	a)	Compare OSI reference model with TCP/IP model.	7M
	b)	Give the applications of TCP/IP. Mention protocols that operate in (i) TCP (ii) I/P	7M
2.	a)	What is meant by Wireless Transmission media? What are the various ways of transmission in this media? Explain Microwave Transmission	8M
	b)	Compare Twisted Pair, Coaxial Cable and Fiber Optics.	6M
3.	a)	With suitable illustration, explain stop- and –wait ARQ.	7M
	b)	Explain framing methods in data link layer.	7M
4.	a)	Explain Dynamic Channel Allocation in LANs and MANs.	7M
	b)	Explain the 802.11 Services.	7M
5.	a)	Write short note on Multicast Routing Protocols.	8M
	b)	Compare Virtual-Circuit and Datagram Subnets	6M
6.	a)	With neat diagram explain IPv4 header format.	7M
	b)	Explain BGP—The Exterior Gateway Routing Protocol	7M
7.	a)	Explain Transport layer services.	7M
	b)	Explain Connection establishment in Transport layer.	7M
8.	a)	Difference between SMTP and MIME	6M
	b)	Write short note on multimedia.	8M

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Hall Ticket Number :										

Hall Ticket Number :

R-11

Code : 1G452

III B.Tech. I Semester Regular & Supplementary Examinations, Nov/Dec 2015

Information Storage Management

(Information Technology)

Max. Marks: 70 **Time: 03 Hours**

Answer *any five* questions

All Questions carry equal marks (14 Marks each)

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1.		Explain the frame work for electronic commerce.	14M
2.		Discuss the features of consumer-oriented electronic commerce.	14M
3.	a)	Discuss the properties of electronic cash.	7M
	b)	Explain the risks involved in electronic payment systems.	7M
4.	a)	Explain the information flow with EDI.	7M
	b)	Explain the factors involved in EDI implementation cost.	7M
5.	a)	Explain customization and internal commerce.	7M
	b)	Write short notes on efficient customer response.	7M
6		Explain wireless WANs.	14M
7.	a)	Discuss the issues involved in digital document management.	7M
	b)	Briefly explain market research.	7M
8.	a)	Write short notes on electronic yellow pages.	7M
	b)	Briefly explain information search challenges.	7M

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Hall Ticket Number :										

Code : 1G453 **R-11 / R-13**

III B.Tech. I Semester Regular & Supplementary Examinations Nov/Dec 2015

Software Engineering

(Information Technology)

Max. Marks: 70 **Time: 03 Hours**

Answer *any five* questions

All Questions carry equal marks (14 Marks each)

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1.	a)	"Software Doesn't Wear Out". Justify your Answer?	7M
	b)	What are different Software Myths? Explain?	7M
2.	a)	Which Model Couples Iterative nature of Prototyping with Systematic nature of Waterfall model? Explain in detail about it?	7M
	b)	Classify Software System Requirements?	7M
3.	a)	What is the aim of Problem Analysis? Explain about different methods of Problem Analysis?	7M
	b)	Develop an Object model, including a class hierarchy diagram and an aggregation diagram showing principle components of Personal Computer and its System software?	7M
4.		Illustrate various Design Concepts in Design Engineering?	14M
5.	a)	Explain Golden Rules of User Interface Design?	8M
	b)	Briefly Explain the steps in User Interface Design Evaluation Cycle?	6M
6.	a)	Discuss a Testing Strategy for Object-Oriented Architecture?	6M
	b)	What are various Metrics available for Analysis Model?	8M
7.	a)	Differentiate Reactive and Proactive Risk Strategies?	7M
	b)	What is Risk Projection? How the Consequences of Risk will be measured?	7M
8.	a)	Is it Possible to assess the Quality of the Software if the customer Keeps Changing? Explain	7M
	b)	Can a Program be correct if it is still not be Reliable? Explain	7M

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Hall Ticket Number :										

Code : 1G454 **R-11 / R-13**

III B.Tech. I Semester Regular & Supplementary Examinations Nov/Dec 2015

Unix Programming

(Information Technology)

Max. Marks: 70 **Time: 03 Hours**

Answer *any five* questions

All Questions carry equal marks (14 Marks each)

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1. a) Draw and explain the structure of the UNIX. 8M
   b) Write the applications of UNIX in detail. 6M

2. How the following UNIX commands helps in executing regular expressions.
   a) grep
   b) egrep
   c) fgrep 14M

3. a) Display the count of characters, words and lines of file in terminal. 7M
   b) Give a brief note on job control, aliases and variables. 7M

4. a) List and explain the Vi- Editor Commands with the help neat diagram. 10M
   b) Write the applications of sed command. 4M

5. a) Make a comparison between sed and awk. 6M
   b) Discuss the associative arrays and string functions in detail. 8M

6. a) How to display environmental variables in terminal? 7M
   b) Write the Command Execution Process in detail. 7M

7. a) Briefly explain the two special files in C shell. 6M
   b) Write a C shell program to display co primes between 1 and 100. 8M

8. Explain the following file management system calls:
   a) open ()
   b) close ()
   c) read ()
   d) write() 14M

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