

Seat No.	
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B.E. (CSE) (Semester - VII) (Pre-Revised) (Old) (Elective-I)

Examination, April - 2018

CYBER LAWS

Sub. Code : 47923

Day and Date : Friday, 27 - 4 - 2018

Total Marks : 100

Time : 2.30 p.m. to 5.30 p.m.

- Instructions :**
- 1) **Attempt any three questions from each section.**
 - 2) **Figures to the right indicate full marks.**
 - 3) **Assume suitable data wherever necessary.**

SECTION - I

- Q1) a)** What is UNCITRAL? State the recommendations made by the commission to the government. **[8]**
- b)** Describe the scope of the IT ACT. **[8]**
- Q2) a)** Explain the legal recognition of electronic records. **[8]**
- b)** Explain the retention of electronic records as per the IT ACT. **[8]**
- Q3) a)** What is certifying authority? Explain its need. **[8]**
- b)** What is revocation of digital signature certificate? Explain its three broad categories. **[8]**
- Q4) Write short note on any three:** **[6+6+6]**
- a) Object of the IT ACT.
 - b) Powers to make rules.
 - c) Appointment of controller and his subordinates.
 - d) Power to recognise foreign certifying authorities.

P.T.O.

SECTION - II

- Q5)** a) Describe the background of domain names. [8]
b) Explain the disputes that may arise by applying trademark law to the domain names. [8]
- Q6)** a) What is consolidated Appropriation ACT 2000. State the principles that the complainant has to prove. [8]
b) Explain the role of technological constraints in domain name dispute. [8]
- Q7)** a) Explain the computer as target and an instrument of crime. [8]
b) Explain the publishing of information which is obscene in electronic form. [8]
- Q8)** Write short note on (any 3): [6+6+6]
a) Reverse Hijacking.
b) Credit card laws.
c) Role of RBI.
d) Framing.



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**B.E. (Computer Science & Engineering) (Semester-VIII)
(Old) (Pre-revised) Examination, May - 2018**

GRID TECHNOLOGY

Sub. Code: 49447

Day and Date : Friday, 04 - 05 - 2018

Total Marks : 100

Time : 02.30 p.m. to 05.30 p.m.

- Instructions :**
- 1) Q. 4 & Q. 8 are compulsory.
 - 2) Attempt any two questions from Q.1, Q.2, Q.3.
 - 3) Attempt any two questions from Q.5, Q.6, Q.7.
 - 4) Figures to the right indicates full marks.

SECTION-I

- Q1) a)** How user can build distributed client/server application model using CORBA? [8]
- b)** With schematic explain basic structure of GT3 and their core services. [8]
- Q2) a)** With neat schematic explain software architecture of portal Lab? [8]
- b)** Explain OGSA with following : [8]
- i) Service instance semantics
 - ii) Service data semantics
- Q3) a)** What is WSRF? What are the advantages of WSRF over OGSF and advantages of OGSF over WSRF? [8]
- b)** Explain how web services are beneficial to the GRID? [4]
- c)** What is the relationship between OGSA, OGSF, and web service. [4]
- Q4) Write a short note on (Any Three) :** [18]
- a) Types and topologies of grid computing.
 - b) DAML+OIL and OWL.
 - c) SOAP and WSDL
 - d) Autonomic computing

P.T.O.

SECTION-II

- Q5)** a) What is GSI? Explain mutual authentication through digital signature and credential delegation & single sign-on? [8]
b) With neat schematic explain Grid monitoring architecture? [8]
- Q6)** a) What is cloud computing? What are the benefits and limitations of CC? Explain different security issues in cloud environment? [8]
b) What is SOA? What are the characteristics of SOA? What is the role of SOA in cloud computing? [8]
- Q7)** a) What is Scheduling? Explain scheduling paradigms in Grid (any two) [8]
b) What is Desktop as a service? How desktop manages in cloud environment. [8]
- Q8)** Write a short note on (Any Three) : [18]
a) Condor
b) Autopilot
c) Client desktop
d) Virtualization



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B.E. (CSE) (Semester - VIII) (Old) Examination, May - 2018
DATA MINING (Elective - II)

Sub. Code : 49451

Day and Date : Monday, 14-05-2018

Total Marks : 100

Time : 2.30 p.m. to 5.30 p.m.

- Instructions :**
- 1) Question 1 & 5 are compulsory
 - 2) Attempt any two from remaining for both sections.
 - 3) Figures at right side indicates full marks.

SECTION - I

- Q1) a)** What do you think of data mining from a database perspective? Explain. [10]
- b) Explain neural networks in detail. [8]
- Q2) a)** Explain decision tree model. [8]
- b) Explain with an example Bayesian classification. [8]
- Q3) a)** Explain decision tree algorithm for classification. [8]
- b) Explain division based classification using example. [8]
- Q4) a)** Write and explain data mining issues. [8]
- b) Explain regression technique with example. [8]

P.T.O.

SECTION - II

- Q5)** a) Explain nearest neighbor algorithm and PAM algorithm. [10]
b) Explain incremental association rule. [8]
- Q6)** a) Explain sampling algorithm for association rule mining. [8]
b) State and explain types of web mining. [8]
- Q7)** a) What is personalization? Explain with example. [8]
b) Explain DBSCAN and CURE algorithm. [8]
- Q8)** a) How do you measure quality of rules? Explain. [8]
b) Explain similarity and different measures. [8]



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**B.E. (CSE) (Part - IV) (Semester - VIII)
(Old) Examination, May - 2018**

BUSINESS INTELLIGENCE SYSTEM (Elective - II)

Sub. Code : 49453

Day and Date : Monday, 14-05-2018

Total Marks : 100

Time : 2.30 p.m. to 5.30 p.m.

- Instruction :**
- 1) Answer any three question from each section.
 - 2) Answer to both the section must be written in the same answer book.
 - 3) Figures to the right indicate full mark.
 - 4) Draw neat diagrams and suitable example whenever necessary.

SECTION-I

- Q1) a)** Discuss metadata driven. [9]
- b) Explain functional requirement for enterprise reporting tool. [8]
- Q2) a)** Which are four step in dimensional design process explain in detail. [8]
- b) Explain role playing dimension with suitable example. [8]
- Q3) a)** Explain modeling process overview. [8]
- b) Discuss the different participants and roles involved in the modeling process. [8]
- Q4) a)** Discuss the query management. [8]
- b) Explain junk dimension with example. [9]

P.T.O.

SECTION-II

- Q5)** a) Explain extract system. [8]
b) Explain audit dimension assembler. [8]
- Q6)** a) Explain the major subset of BI application. [8]
b) Discuss query formulation. [8]
- Q7)** a) Explain data mining model development and implementation process. [8]
b) Discuss improving data quality culture and process. [8]
- Q8)** Write short note on: [18]
a) Data quality
b) Business intelligence application maintenance.
c) Dashboards and scorecards.



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**B.E. (Computer Science and Engineering) (Semester - VIII)
(Pre-Revised) (Old) Examination, May - 2018**

INTRODUCTION TO MAINFRAMES

Sub. Code : 58286

Day and Date : Wednesday, 16-05-2018

Total Marks : 100

Time : 2.30 p.m. to 5.30 p.m.

- Instructions :**
1. **Figures to the right indicates full marks.**
 2. **Attempt any three questions from each section.**
 3. **Write your assumption if needed.**

SECTION-I

- Q1) a)** Explain online transaction processing in mainframe with its characteristics and examples. **[8]**
- b) What is Dynamic address Translation? Explain the concept of Address space. **[8]**
- Q2) a)** Give and explain different roles in the Mainframe world. **[8]**
- b) What is JOB statement? Explain different JCL parameters on JOB statement. **[8]**
- Q3) a)** Explain the concept of MVS address space in detail. **[8]**
- b) Give and explain keyword parameters from JOB statement. **[8]**
- Q4) a)** What do you mean by dataset? Explain different types of datasets in detail. **[9]**
- b) Explain Frames, Pages and Slots and their relationship with neat diagram. **[9]**

P.T.O.

SECTION-II

- Q5)** a) Describe LEVEL number, PIC Clause and VALUE Clause in COBOL. [8]
b) Explain MULTIPLY verb in COBOL with Example. [8]
- Q6)** a) What is the use of EVALUATE statement? Give and explain different forms of EVALUATE statement. [8]
b) Write a sample COBOL program where all types of PERFORM verbs are used. [8]
- Q7)** a) What is the difference between literal and figurative constant. How many different types of constants are there in COBOL. [8]
b) Draw and explain DB2 system architecture. [8]
- Q8)** a) Explain DB2 CATLOG and DIRECTORY in detail. [9]
b) List the character set of COBOL program. Give three valid and invalid COBOL word with reason. [9]



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B.E. (Computer Science. & Engineering) (Semester - VII) (Revised)
Examination, April - 2018

ADVANCED COMPUTER ARCHITECTURE

Sub. Code :67541

Day and Date : Tuesday, 24- 4 - 2018

Total Marks : 100

Time : 2.30 p.m. to 5.30 p.m.

- Instructions :**
- 1) **Attempt any Three questions from each section.**
 - 2) **Figures to the right indicates full marks.**
 - 3) **Assume suitable data if necessary.**

SECTION - I

- Q1) a)** What is MTTF? How rate of failure is computed? What is significance of MTTF in software product development? [8]
- b)** What is need of classification of computer architectures? How Michael Flynn has classified different computer architectures? [8]
- Q2) a)** What are different shared memory multiprocessor models? How these models differ from each other? [8]
- b)** What is concept of linear pipelining? Explain unfunction and Multifunction pipelines. [8]
- Q3) a)** Explain scalable coherent multiprocessor model with distributed shared memory. State its applications. [8]
- b)** Explain principle of multithreading. Draw and explain multithreaded architecture. [8]
- Q4) Write short notes on following (any three) [3×6=18]**
- a) Pipeline vector processors
 - b) Systolic Arrays and its applications
 - c) Latency hiding techniques
 - d) Associative memory processor

P.T.O.

SECTION - II

- Q5)** a) What is need of distributed architectures? Compare between loosely coupled and tightly coupled architectures. Which architecture is preferred for real time applications? [8]
- b) Explain with steps intracluster memory access in Cm* architecture. [8]
- Q6)** a) What is GPU? Draw GPU memory structure. How GPU memory is shared by all vector loops. [8]
- b) What is Grain size? Explain grain packing and scheduling. [8]
- Q7)** a) Explain how parallelism in a program is detected using Bernstein's conditions. State properties of Bernstein's conditions. [8]
- b) What is hardware and software parallelism? With suitable example explain mismatch between them. [8]
- Q8)** Write short notes on following (any three) [3×6=18]
- Vector Architecture
 - Data and Resource dependences
 - Latency
 - Cross cutting issues Mobile Vs Server GPUs.



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B.E. (C.S.E.) (Part - IV) (Semester - VII) (Revised)**Examination, April - 2018****DISTRIBUTED SYSTEMS (Revised)****Sub. Code : 67542****Day and Date : Wednesday, 25- 4 - 2018****Total Marks : 100****Time : 2.30 p.m. to 5.30 p.m.**

- Instructions :**
- 1) **Question 4 & 8 are compulsory, attempt any two questions from Questions 1 to 3 in section - I and Questions 5 to 7 in section - II.**
 - 2) **Figures to the right side indicate full marks.**

SECTION - I

- Q1) a)** Explain different types of transparency in distributed systems. [8]
- b) Discuss scalability limitations in distributed systems. [8]
- Q2) a)** What is a socket? Explain different socket primitives for TCP/IP that are used in Berkeley Sockets. [8]
- b) What is logical clock? Explain Lamport's Logical Clock algorithm. [8]
- Q3) a)** Explain basic NFS (network file systems) architecture for UNIX systems. [8]
- b) Explain Client-Side caching in Coda file system. [8]
- Q4) Write note on** [3 × 6]
- a) Election algorithms (Bully and Ring)
 - b) Properties of distributed systems.
 - c) Process communication in Flat Groups versus Hierarchical Groups.

P.T.O.

SECTION - II

- Q5)** a) Explain in detail various components of cloud computing. [8]
b) Explain public cloud, private cloud, community cloud and hybrid cloud in detail. [8]
- Q6)** a) What are different techniques that implement virtualization at the OS level? Discuss in detail. [8]
b) Explain hosted virtualization, what are its benefits and drawbacks? [8]
- Q7)** a) How data confidentiality and encryption play important role in cloud? Explain in detail. [8]
b) What do you mean by Cloud Storage Gateways (CSGs)? What are different features CSGs has to provide? Explain. [8]
- Q8)** Write short notes (attempt any three) [3 × 6]
- a) Binary translation with full virtualization.
 - b) Virtualization of CPU, Memory, and I/O devices.
 - c) Platform as a service (PaaS).
 - d) Software as a service (SaaS).

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**B.E. (C.S.E.) (Semester - VII) (Revised)
Examination, April - 2018**

ADVANCED DATABASE SYSTEM

Sub. Code : 67543

Day and Date : Thursday, 26 - 04 - 2018

Total Marks : 100

Time : 02.30 p.m. to 05.30 p.m.

- Instructions :**
- 1) **Attempt any three questions from each section.**
 - 2) **Figures to the right indicate full marks.**
 - 3) **Assume suitable data wherever necessary.**

SECTION - I

- Q1) a)** For each of the three partitioning techniques, namely round-robin, hash partitioning, and range partitioning, give an example of a query for which that partitioning technique would provide the fastest response. **[8]**
- b) What is interquery parallelism? Explain cache coherency problem and protocol available to guarantee cache coherency. **[8]**
- Q2) a)** Explain the following with respect to robustness of distributed databases. **[8]**
- i) Coordinator selection.
 - ii) Majority based approach.
- b) What is object? What are the properties of object? Explain with example object structure? **[8]**
- Q3) a)** Describe the working of cursor and types of cursors in PL/SQL with example? **[8]**
- b) What is trigger? Write the trigger for updating the records in the database. **[8]**

P.T.O.

Q4) Write a short note on (Any three). [18]

- a) Type and Table inheritance in ORDBMS.
- b) Database life cycle.
- c) Distributed query processing.
- d) Persistence.

SECTION - II

- Q5) a)** What is public-key encryption? How does it differ from the encryption approach taken in the Data Encryption Standard (DES), and in what is it better than DES? [6]
- b) Explain the use of an audit trail, with special reference to a statistical database system. [4]
- c) Explain with example discretionary access control mechanism? [6]

- Q6) a)** Describe Xquery algebra operation. Describe FLWOR expression with example. [8]
- b) What is XML Schema? Explain with example. [8]

- Q7) a)** With neat schematic explain business intelligence framework? [6]
- b) Explain with suitable example any two operations on multidimensional data. [4]
- c) What is data mining? Explain association rule mining? [6]

Q8) Write a short note on (Any Three). [18]

- a) OLAP Vs OLTP.
- b) Bell-Lapdula model.
- c) DTD.
- d) Data warehouse.



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B.E. (Computer Science & Engineering) (Semester - VII)
(Revised) Examination, April -2018
SOFT COMPUTING (Elective - I)
Sub. Code : 67545

Day and Date : Friday, 27 - 04 - 2018

Total Marks : 100

Time : 2.30 p.m to 5.30 p.m.

- Instructions :**
- 1) Attempt any three questions from each section.
 - 2) Figures to the right indicate full marks.
 - 3) Assume suitable data if necessary.

SECTION - I

- Q1) a)** What are hybrid systems? Explain Neuro-Genetic Hybrid System. [8]
b) What is function of processing element in a mathematical model of Artificial Neuron? Draw and explain Feed-forward neural network model. [8]
- Q2) a)** What is adaline? Draw adaline model and using flow chart explain training diagram for adaline network. [8]
b) Explain how radial basis function (RBF) is used for classification and functional approximation applications. Draw and explain architecture of RBF. [8]
- Q3) a)** Explain linear separability problem using decision boundary line. Give any practical example of linear separability. [8]
b) Draw and explain architecture of M-P Neuron. Implement AND function using M-P Neuron considering following truth table. [8]

X1	X2	Y
1	1	1
1	0	0
0	1	0
0	0	0

P.T.O.

Q4) Write Short Notes on (Any Three).

[18]

- a) Neuro-Fuzzy hybrid system.
- b) Biological Neural Network.
- c) Learning in ANN
- d) Back-propagation training algorithm

SECTION - II

Q5) a) What are Fuzzy sets? Compare Fuzzy sets with classical sets (Crisp sets), what are different operations carried out on Fuzzy sets. [8]

b) What is Defuzzification? Explain weighted average method & First of maxima last of maxima method. [8]

Q6) a) Explain following operators & terminologies used in Genetic Algorithms. [8]

- i) Search Space
- ii) Selection Operator
- iii) Cross over operator
- iv) Mutation operator

b) What are Holland classifier systems? Explain bucket brigade algorithm. [8]

Q7) a) Draw and explain Hybrid Fuzzy Controller implemented using soft computing. [8]

b) Explain scientific and engineering applications of Genetic Algorithms. [8]

Q8) Write Short Notes on (Any Three).

[18]

- a) Angular Fuzzy set
- b) Fuzzy Logic Control System
- c) Genetic Programming.
- d) GA based Internet search technique.



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B.E. (Computer Science and Engineering)
(Semester - VII) Examination, April -2018
MOBILE APPLICATIONS (Elective - I)
Sub. Code : 67546

Day and Date : Friday, 27 - 04 - 2018

Total Marks : 100

Time : 2.30 p.m to 5.30 p.m.

- Instructions :
- 1) Question no 4 and 8 are compulsory.
 - 2) Attempt any two questions from remaining questions in each section.
 - 3) Figures to the right indicates full marks.

SECTION - I

- Q1)** a) What are Myths of the Mobile Web. [6]
b) What is web service? How to create example for web service. [6]
c) List the differences between mobile web and desktop web. [4]
- Q2)** a) Write note on progressive Enhancement. [6]
b) Explain in detail WAP. 2.0 Protocol. [6]
c) Write useful design tips for tablet devices. [4]
- Q3)** a) What are different browsers for mobile web development? [6]
b) Explain the steps to create new android application? [6]
c) What is web view? Explain with example. [4]
- Q4)** Write short note on (Any THREE). [18]
a) RWD
b) JSON
c) WML
d) Pseudo-Browsers

P.T.O.

SECTION - II

- Q5)** a) Explain in detail Server side detection. [6]
b) Explain WURFL in detail. [6]
c) Compare HTML fallbacks with CSS fallbacks for Client side detection. [4]
- Q6)** a) Explain how we can send an email as well as an SMS from a mobile application. [6]
b) Compare Server side debugging and client side debugging. [6]
c) Differentiate between SVG and Canvas. [4]
- Q7)** a) Compare AJAX and Server Sent Events. [6]
b) Explain authentication and sharing APIS for Social Web. [6]
c) Explain how Assisted GPS works. [4]
- Q8)** Write a short note on (any three). [3×6=18]
a) Sencha Touch.
b) jQuery Mobile.
c) WiFi Positioning System.
d) Modernizr.



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B.E. (Computer Science. & Engineering) (Part -IV) (Semester - VII)
Examination, April - 2018

AD HOC WIRELESS NETWORK (Elective - I)

Sub. Code :67547

Day and Date : Friday, 27- 4 - 2018

Total Marks : 100

Time : 2.30 p.m. to 5.30 p.m.

- Instructions :**
- 1) Solve any three questions from each section.
 - 2) Figures to the right indicates full marks.
 - 3) Make necessary assumptions if required.

SECTION - I

Q1) a) Explain Dual Busy Tone Multiple access protocol in detail. **[8]**

b) Explain LAR protocol in detail. **[8]**

Q2) Write a note on following issues in Ad Hoc wireless networks.

a) Deployment Considerations in Ad Hoc wireless network. **[6]**

b) Medium Access scheme in Ad Hoc wireless network. **[6]**

c) Routing in Ad Hoc Wireless network. **[6]**

Q3) a) Compare table driven routing protocols and On Demand routing protocols in detail. **[8]**

b) Explain MACA - By invitation protocol in detail. **[8]**

Q4) a) What are the disadvantages of the binary exponential back - off mechanism used in MACA? How are they overcome in MACAW? **[9]**

b) What are the design goals of MAC protocols for Ad Hoc wireless network? **[8]**

P.T.O.

SECTION - II

- Q5)** a) With a neat event diagram explain source initiated and Receiver Initiated multicast routing protocol. [9]
b) Explain Feedback based TCP for Ad Hoc Wireless networks. [8]
- Q6)** a) Explain INORA QoS model in detail. [9]
b) What are device and processor energy management schemes? [8]
- Q7)** a) Explain Multicast Zone Routing Protocol protocol in details. [8]
b) Why energy management is important in Ad Hoc wireless network? [8]
- Q8)** a) With a neat diagram explain Architectural Reference Model of Multicast routing Protocols. [9]
b) List and explain network security attacks in Ad Hoc Wireless Network. [8]



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B.E. (Computer Science & Engineering) (Semester-VIII) (Revised)
Examination, May - 2018
DATA ANALYTICS
Sub. Code: 67824

Day and Date : Friday, 04 - 05 - 2018

Total Marks : 100

Time : 2.30 p.m. to 5.30 p.m.

- Instructions :**
- 1) **Figures to the right indicate full marks.**
 - 2) **Question no. 4 & Question no. 8 are compulsory.**
 - 3) **Attempt any Two Questions from Q. 1 to Q. 3 and From Q. 5 to Q.7.**

- Q1) a)** Explain the phases in the development of Business intelligence system with the help of neat diagram. **[8]**
- b) Discuss the phases in the development of Decision-support system? **[8]**
- Q2) a)** Discuss the different stages in the development of mathematical models for decision making with neat diagram. **[8]**
- b) Explain in detail process of measures for univariate analysis? **[8]**
- Q3) a)** Describe Hadoop Ecosystem with diagram. **[8]**
- b) Define Hadoop Distributed File System (HDFS) & Map Reduce? **[8]**
- Q4) Write a note on (Attempt Any Three) :** **[18]**
- a) Data Warehouse Architecture
 - b) Classes of Mathematical models
 - c) Pig, HBase
 - d) Cube & Multidimensional Analysis
- Q5) a)** Discuss simple linear regression. **[8]**
- b) Describe the structure and phases for learning methods for classification with a neat diagram. **[8]**

P.T.O.

- Q6)** a) Write Apriori Algorithm for extracting strong rules from transactions. [8]
b) Explain in detail any one algorithm used for partition methods. [8]
- Q7)** a) Write the different functions to handle the data in R workspace with an example. [8]
b) List and illustrate various types of R commands to import data. [8]
- Q8)** Write a note on (Attempt Any Three) : [18]
a) Multiple linear regression
b) Bayesian methods
c) Handling expression in R
d) Hierarchical clustering methods



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**B.E. (Computer Science & Engineering) (Semester - VIII)
(New) Examination, May - 2018**

PROJECT MANAGEMENT

Sub. Code: 67825

Day and Date : Monday, 07 - 05 - 2018

Total Marks : 100

Time : 2.30 p.m. to 5.30 p.m.

- Instructions :**
- 1) Question no. 4 and Question no. 8 are compulsory.
 - 2) Solve any two from Section - I (From 1 to 3) and Section -II (From 5 to 7).
 - 3) Figures to the right indicate full marks.
 - 4) Draw neat diagrams wherever necessary.

SECTION-I

- Q1) a)** How does a project life cycle differ from product life cycle? Describe phases in a traditional project life cycle. **[8]**
- b)** Discuss Project Management knowledge areas with tools and techniques. **[8]**
- Q2) a)** Discuss Project Integration Management and the seven main processes involved in it. **[8]**
- b)** Explain the following:
- i) Net Profit Value analysis with example. **[4]**
 - ii) Return on Investment. **[2]**
 - iii) Payback Analysis. **[2]**

P.T.O.

- Q3)** a) Explain Project Scope management and five main processes involved in it. [8]
b) Explain Project Time Management and six main processes involved in it. [8]
- Q4)** Write short notes (any three) : [3×6]
a) Cost Control mechanism.
b) Activity Resource Estimation.
c) Activity Duration estimation.
d) Project Cost Management.
e) Critical path method and chain scheduling.

SECTION-II

- Q5)** a) List and Explain tools and techniques for quality control. [8]
b) Explain with respect to Quality Control. [8]
i) Statistical Sampling.
ii) Six Sigma.
iii) Cost of Quality.
- Q6)** a) Describe with respect to Human Resource Management. [8]
Maslow's Hierarchy of needs
Herzberg's motivation Hygiene theory
McClelland's Acquired-Needs Theory
McGregor's Theory X and Theory Y
- b) Explain the following:
i) Resource Loading. [2]
ii) Resource Leveling. [2]
iii) Responsibility assignment matrices [4]

- Q7)** a) Explain Motivation Theories in detail. [8]
b) Discuss Team-Building activities in detail. [8]

Q8) Write a short note (any three): [3×6]

- a) Risk Identification.
b) Qualitative Risk analysis (repeated).
c) Quantitative Risk analysis.
d) Planning Risk responses.

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**B.E. (Comp. Sci. and Engg.) (Semester - VIII) (Revised)
Examination, May - 2018**

REAL TIME OPERATING SYSTEM

Sub. Code: 67826

Day and Date : Friday, 11 - 05 - 2018

Total Marks : 100

Time : 2.30 p.m. to 5.30 p.m.

- Instructions :**
- 1) Solve any three questions from each section.
 - 2) Figures to the right indicate full marks.

SECTION - I

- Q1)** a) What is Real-Time System? Explain Real-time system design issues. [8]
 b) Explain Direct Memory Access with block diagram. [8]
- Q2)** a) Explain different instruction forms used in the processors. [8]
 b) Explain cyclic executives in detail. [8]
- Q3)** a) What are mailboxes? How critical section problems can be handled using mailbox? [8]
 b) Explain role of kernel in operating systems. [8]
- Q4)** Write a note on : (any three) [3 × 6 = 18]
 a) Latching
 b) Watchdog Timers
 c) POSIX
 d) Ring Buffers

SECTION - II

- Q5)** a) Explain requirement engineering process. How requirements are represented? [8]
 b) Explain Assembly languages and Procedural languages in real-time systems. [8]

P.T.O.

- Q6)** a) How structured analysis is done using structural design? State problems related to structural analysis. [8]
b) Explain McCabe's metrics and Halstead's metrics in detail. [8]
- Q7)** a) Draw and explain architecture of RTLinux. [8]
b) Explain cost estimation using COCOMO II model. [8]
- Q8)** Write a note on : (any three) [3 × 6 = 18]
- a) State charts
 - b) Lines of code metric
 - c) Petri nets
 - d) Procedural languages



Seat No.	
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B.E. (CSE) (Semester - VIII) Examination, May - 2018
INTERNET OF THINGS (Elective - II - A)

Sub. Code : 67827

Day and Date : Monday, 14-05-2018

Total Marks : 100

Time : 2.30 p.m. to 5.30 p.m.

- Instruction :**
- 1) Questions 4 and 8 are Compulsory
 - 2) Solve any 2 Questions from 1 to 3 and any 2 questions from 5 to 7.
 - 3) Figures to the right indicate full marks.

Q1) a) Explain ITU view of ubiquitous networking. [8]

b) What are the application of Internet of thing? Explain in detail. [8]

Q2) a) Explain various technologies used in IoT. [8]

b) Explain the structure of an object in IoT. [8]

Q3) a) Explain the various issues in RFID system. [8]

b) What are the challenges faced by a modern WSN? Explain in detail. [8]

Q4) Write Short notes on any 3 of the following [3×6=18]

a) Internet of Things.

b) EPC

c) RFID reader and RFID Tag.

d) H2M communication.

P.T.O.

Q5) a) Explain in detail Wireless personal area network (WPAN) [8]

b) Differentiate between WSN, WBAN and cellular wireless network. [8]

Q6) a) How Robustness can be achieved in IOT System. [8]

b) Explain Governance issues addressed in IOT system? [8]

Q7) a) How IoT is useful for development of smart city? [8]

b) Write down the Benefits of MBAN Technology. [8]

Q8) Write Short notes on any 3 of the following. [3×6=18]

a) Bluetooth.

b) Aspects of governance.

c) DSRC related protocols.

d) e-Health/ Body area network.



Seat No.	
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B.E. (CSE) (Part - IV) (Semester - VIII) (Revised)
Examination, May - 2018
SOFTWARE TESTING AND QUALITY ASSURANCE
(Elective - II)
Sub. Code : 67828

Day and Date : Monday, 14-05-2018

Total Marks : 100

Time : 2.30 p.m. to 5.30 p.m.

- Instruction :
- 1) Q.4 and Q.8 are Compulsory.
 - 2) Attempt any two questions from Q.1 to Q.3
 - 3) Attempt any two questions from Q.5 to Q.7

SECTION - I

- Q1)** a) Explain verification and validation. [8]
b) Compare alpha testing versus beta testing. [8]
- Q2)** a) How SRS document verification is done? Explain in detail. [8]
b) Which are the techniques to select test cases for the purpose of regression testing? [8]
- Q3)** a) How to generate test cases from use cases. [8]
b) What is risk analysis? Explain risk matrix. [8]
- Q4)** Write a note on (Any two). [18]
a) The V shaped software lifecycle model.
b) Database Testing.
c) Object oriented testing.

P.T.O.

SECTION - II

- Q5)** a) What do you mean by scope of software metrics? Explain degree of software measurement. [8]
- b) Explain functional testing with suitable example. [8]
- Q6)** a) What should we measure during testing? [8]
- b) Explain usability testing steps. [8]
- Q7)** a) Explain Albretch's approach with respect to functionality? [8]
- b) What are security threats? Explain security testing. [8]
- Q8)** Write a note on (Any two) [18]
- a) Object oriented metrics used in testing.
- b) Problems with function points measure.
- c) Performance testing.



Seat No.	
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B.E. (CSE) (Part - IV) (Semester - VIII)
Examination, May - 2018
INTRODUCTION TO MAINFRAMES (Elective - II)
Sub. Code : 67829

Day and Date : Monday, 14-05-2018

Total Marks : 100

Time : 2.30 p.m. to 5.30 p.m.

- Instruction :**
- 1) All questions are compulsory.
 - 2) Figures to the right indicates full marks.

Q1) Attempt any two questions.

- a) Explain online transaction processing in mainframe with its characteristics and examples. [8]
- b) Explain key features and benefits of mainframe. [8]
- c) Describe Instream and Cataloged procedures with examples. [8]

Q2) Attempt any two questions.

- a) Explain different roles in the mainframe environment. [8]
- b) Describe DD statement? Explain different parameters on DISP statement. [8]
- c) Explain the concept of MVS address space in detail. [8]

Q3) Write short note on (any three)

[18]

- a) JOB statement
- b) EXEC statement
- c) CATLOG
- d) IEBCOPY

P.T.O.

Q4) Attempt any two Questions.

- a) List and explain the Divisions in COBOL program. [8]
- b) Write a sample COBOL program where all types of PERFORM verbs are used. [8]
- c) Explain REDEFINES and RENAMES clause with suitable examples of COBOL program. [8]

Q5) Attempt any two Questions.

- a) What is the difference between literal and figurative constant. How many different types of constants are there in COBOL? [8]
- b) Explain System Service Component & Locking Service Component of DB2. [8]
- c) What is optimizer in DB2? Explain the working of optimizer. [8]

Q6) Write short note on (any three) [18]

- a) DB2 objects (Stored tables and Tablespaces)
- b) EVALUATE Verb in COBOL
- c) DB2 CATLOG and DIRECTORY
- d) Basic features of Embedded SQL

