Subject Code : 53

FACULTY OF ENGINEERING & TECHNOLOGY
B.E. (I.T.) (Revised) Examination
APRIL/MAY, 2017

Cloud Computing

Time : Three Hours | Max. Marks: 80

"Please check whether you have got the right the question paper"

Note: i) *Q.No. 1 & 6 are compulsory.*
ii) *Attempt any two questions from remaining in each section.*

SECTION – A

Q.1	Solve any two questions :		
	(i)	Enlist and brief on essential characteristics of cloud computing.	05
	(ii)	Explain in detail about identify as-a-service.	05
	(iii)	Write short notes on Server virtualization.	05
Q.2	(a)	Explain in detail about service oriented architecture.	08
	(b)	Depict and brief on mainframe architecture.	07
Q.3	(a)	Define web-service. Enlist the differences between SOAP and RESTFUL web services.	08
	(b)	Describe software-as-a-service and also mention advantages and drawbacks.	07
Q.4	(a)	Explain in detail IAAS. What are the different benefits and drawbacks.	08
	(b)	Define Hypervisor. Explain in detail about host VMM and native VMM.	07
Q.5	(a)	Explain in detail about MAAS.	08
	(b)	What is cloud computing? Enlist and explain delivery models.	07

SECTION – B

Q.6	Solve any two questions :		
	(i)	Write short notes on pig.	05
	(ii)	Brief on disaster recovery.	05
	(iii)	Explain in detail about Google APIs..	05
Q.7	(a)	Define privacy. Explain in detail Data life cycle phases.	08
	(b)	What are the different cloud file systems? Explain in detail.	07
Q.8	(a)	Explain in detail about Google Analytics.	08
	(b)	Explain in about working of Google App Engine.	07
Q.9	(a)	Explain in detail about parallel efficiency of Map-Reduce.	08
	(b)	Brief on the security management in cloud.	07
Q.10	(a)	Explain in detail infrastructure security at application level.	08
	(b)	What is indexed search? Explain in detail.	07

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Total No. of Printed Pages:2

SUBJECT CODE NO:- P-84
FACULTY OF ENGINEERING AND TECHNOLOGY
B.E.(IT) Examination May/June 2017
Geographical Information System
(Revised)

[Time: Three Hours] **[Max.Marks:80]**

Please check whether you have got the right question paper.

N.B 1) Q.1 & Q.6 is compulsory
2) solve any two from Q.2 to Q.5 for section A & any two form Q.7 to Q 10 for section B
3) Draw appropriate diagram wherever necessary

Section A

Q.1 a) Explain the basic spatial entities in brief write appropriate examples 06

b) Explain the following methods for identifying surface significant points: 04

i) Skeleton method

ii) Drop-heuristic method

Q.2 a) Define spatial referencing system. Explain in brief the following spatial referencing system: 07
i) Rectangular coordinate system
ii) Non- coordinate system

b) Explain in brief with example: 08
i) Nominal scale
ii) Internal scale
iii) Ordinal scale
iv) Ratio scale

Q.3 a) Explain in brief for basic spatial entities are represented using raster data structure 07

b) Define network model in GIS. Explain the following terms: 08
i) arcs
ii) network nodes
iii) stops
iv) centers
v) Turns

Q.4 Explain: i) client – server web GIS 08
ii) Networked web GIS

b) Explain the following method of checking errors in the encoding of attribute data: 07
i) Impossible values
ii) Extreme values
iii) Scatter grams

Q.5 a) Explain the procedure of digitizing a paper map using a manual digitizer 08

b) Write note on : 07
i) Edge matching
ii) Rubber sheeting

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Section B

Q.6	a) Explain the Travelling salesperson problem in network Analysis	05
	b) Define the following data Analysis Terminologies i) entity ii) Attribute iii) Data Layer iv) Cell v) Algorithm	05
Q.7	a) Define Buffering. Explain how buffering is done around a) point b) line c) polygon	08
	b) Explain with example, the usage of following Boolean operators in Query analysis: i) AND ii) OX iii) XOR	07
Q.8	a) Explain the concept of visibility analysis using ray tracing	07
	b) Explain the following mathematical process models: i) Deterministic ii) Stochastic iii) optimization	08
Q.9	Explain the importance of cartographic symbolism during map design	08
	b) Define Remote sensing. Explain in brief the working of Remote sensing	07
Q.10	a) Explain the following cartogram forms i) Routed line cartogram ii) Area cartogram	08
	b) comment on “Maps as Decision Tools”	07

Total No. of Printed Pages:2

SUBJECT CODE NO:- P-116
FACULTY OF ENGINEERING AND TECHNOLOGY
B.E.(EC) Examination May/June 2017
Robotics (EC)
(Revised)

[Time: Three Hours] **[Max.Marks:80]**

Please check whether you have got the right question paper.

N.B 1) Assume suitable data if necessary.
2) Q.No.1 & q.No.6 are compulsory. Then solve any two question in Sec. A as well as in Sec. B.

Section A

Q.1 Answer in very short 10
(a) Define robotic arm
(b) Give four typical applications of robotics
(c) What is dynamic constraints?
(d) What are vector operations?
(e) What are matrix operations?

Q.2 a) Explain the classification of robotic arm. 8
b) Give specifications of robotic arm. 7

Q.3 a) What is present & future trends in Robotics. 8
b) Explain Newton's & rulers equation 7

Q.4 a) Explain D – H matrix 8
b) Consider a Vector $\bar{v}$ = 3i + 4j + 5K Give its homogeneous representation with S=0,1,2 & -10. 7

Q.5 a) A frame has been moved nine units along the X axis and five units along the 2 axis. d the reference frame. find the new location & the frame if Fis: 08

$$F=\begin{pmatrix} .527 & -.574 & .628 & 5 \\ .369 & .819 & .439 & 3 \\ .766 & 0 & .643 & 8 \\ 0 & 0 & 0 & 1 \end{pmatrix}$$

b) if $\bar{x}$= I + 2j + 3k & $\bar{y}$ = 4i +5j + 6K find $\bar{x}$.$\bar{y}$ & $\bar{x} \times \bar{y}$ in homogenous co-ordinate system 07

Section B

Q.6 a) What are different end effecor? 10
b) Give classification of actuators
c)What are basic externalsensors?
c) What are basic control actions ?
d) What is machine vision system?

Q.7 a) Explain object recognition system 8
b) Give need & applications of machine vision system 7

Q.8 a) Explain obstacle aviodance system 8

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	b) Explain jacobian in terms of D.H. matrix	7
Q.9	a) Explain magnetic Gripper	8
	b) Explain any one dC motor as actuator	7
Q.10	a) What is laser range finder sytem	8
	b)Explain the Camera as a sensor	7

Total No. of Printed Pages:2

SUBJECT CODE NO:- P-121
FACULTY OF ENGINEERING AND TECHNOLOGY
B.E.(IT) Examination May/June 2017
E-Business Management
(Revised)

[Time: Three Hours] **[Max.Marks:80]**

Please check whether you have got the right question paper.

N.B i) Q.No.1 and Q.No.6 is compulsory.
ii) Solve any two from Q2 to Q5 from section & any two from Q7 to Q10.
iii) Draw appropriate diagram wherever necessary.

Section A

Q.1 a) Define e-Business. Compare e-Business Vs e-Commerce. 05
b) Comment On Internet – enabled business models. 05

Q.2 a) How do the following potential benefits of e-business motivate today's enterprises to undertake e-business : 07
1) Reduction in operating costs & costs of goods & services.
2) Improved competitive position.

b) Explain the following levels of e-Business Strategy: 08
1) Industry value chain level.
2) Business unit level.

Q.3 a) Explain cybermediaries business model in brief. 07
b) Explain in brief the trends driving e-business architecture. 08
i) Fast moving competitors.
ii) Problems caused by lack of Integration.

Q.4 a) Explain the importance of CRM in e-business framework. Explain the goods of CRM. 10
b) How does CRM software application support more effectively in sales like Telesales, Cross-selling & up-selling. 05

Q.5 a) Explain the goals of a selling chain Management strategy in brief. 08
b) Explain the following elements of selling chain Infrastructure : 07
1) Product catalogs & Marketing Encyclopedias
2) Sales Incentives & Commission Processing

Section B

Q.6 a) Explain in brief the various e-business risks. 05
b) Explain the capabilities of COTS ERP solutions 05

Q.7 a) Explain Enterprise Integration(ERP) 07
b) Describe supply chain Management Investment areas. 08

Q.8 Write note on:- 08
1) e-Supply chain fusion

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2) Diagnosing root causes of supply chain problems.

b) Comment on "Build versus buy versus rent" in ERP. 07

Q.9 a) Mention the characteristics of the following e-procurement models: 07

1) EDI networks.
2) B2E requisitioning applications.

b) Explain the following elements of Knowledgement . 08

1) Analysis & segmentation
2) Real-time personalization

Q.10 a) Explain the electronic market success factors in brief. 07

b) Define Business process. Write five tenets of buriers process management. 08

Total No. of Printed Pages:1

SUBJECT CODE NO:- P-170
FACULTY OF ENGINEERING AND TECHNOLOGY
B.E.(IT) Examination May/June 2017
Elective-I: Compiler Construction
(Revised)

[Time: Three Hours] **[Max.Marks:80]**

Please check whether you have got the right question paper.

N.B i)Question No 1 and Q No 6 are compulsory
ii)Attempt any two question from Q.2 to Q.5 and any two question from Q.7 to Q.10 from each section
iii) Figure to the right indicate full marks

Section A

Q.1	a) List and explain any five compiler construction tools	5
	b)Explain various phases of compiler in detail	5
Q.2	a) Explain context tree grammar with suitable example	7
	b) Explain in detail the role of lexical analyzer	8
Q.3	a) Explain recursive descent parsing with suitable example	7
	b) For top down parsing ,write the rules to compute FIRST ( ) and FOLLOW ( ) function	8
Q.4	a) Explain with example working of shift reduce parser	7
	b) What is three address codes? Explain various types of three address codes	8
Q.5	a) Explain the steps to construct syntax tree	7
	b) Write short note on – SDT scheme for desk calculator	8

Section B

Q.6	a) What are the different types of errors? How are they treated in compiler	5
	b) What information is contained in the symbol table?	5
Q.7	a) write short note on run- time storage administration	7
	b) Explain various techniques loop optimization	8
Q.8	a) Explain about global data flow analysis	7
	b) with suitable example explain- 1) Global common sub expression 2) copy propagation 3) Dead code elimination 4) Algebraic simplification	8
Q.9	a) discuss various issues in the design of code generator	7
	b) Explain in detail basic block and flow graph	8
Q.10	a) Write short note on register allocation and assignment	7
	b) with suitable examples explain various characteristics of peephole optimization	8

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Total No. of Printed Pages:1

SUBJECT CODE NO:- P-192
FACULTY OF ENGINEERING AND TECHNOLOGY
B.E.(IT) Examination May/June 2017
Elective-I: Object Oriented Analysis & Modeling
(Revised)

[Time: Three Hours] **[Max.Marks:80]**

Please check whether you have got the right question paper.

N.B i) Q.No.1 from section A and Q.No.6 from section B are compulsory.
ii) Attempt any two questions from the remaining questions in each section
iii) Assume suitable data if necessary

Section A

Q.1	Solve any two		10
	1)	Explain the structure of object oriented develop model	
	2)	State and explain the benefits & risk of object oriented development	
	3)	Differentiate aggregation & association	
Q.2	a)	What is complexity & why the S/W is inherently complex explain in detail	07
	b)	Draw & explain use –case diagram & state transition diagram of course –ware management system	08
Q.3	a)	Explain in detail structure of complex system with example	07
	b)	What is object & what is not an object, explain in detail with example	08
Q.4	a)	Discuss in detail the importance of proper classification	07
	b)	What are major elements of object model explain in detail with example	08
Q.5	a)	Discuss the quality assurance & matrices of object oriented design	07
	b)	Discuss & explain the management & planning related to project development	08

Section -B

Q.6	Solve any two		10
	a)	Gang of four suggests a few strategies for creating good OOD what are they?	
	b)	Compare creational & structural design pattern	
	c)	State & explain the motivation of observer pattern	
Q.7	a)	Explain organizing the catalog of design pattern in detail	07
	b)	Explain document structure of a document editor in detail	08
Q.8	a)	How to use proxy pattern and state the applicability of the proxy pattern	07
	b)	What are the strength & weakness of strategy design pattern explain in detail	08
Q.9	a)	The singleton uses a special methods to instantiate object, what is special about this method give example	07
	b)	What are the role of Abstract factory class & concrete factory class in the Abstract factory pattern explain in detail.	08
Q.10	a)	Explain the intent & structure of adapter pattern	07
	b)	Explain collaboration & consequences of decorator pattern	08

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Total No. of Printed Pages:2

SUBJECT CODE NO:- P-287
FACULTY OF ENGINEERING AND TECHNOLOGY
B.E. (IT) Examination May/June 2017
Big Data Analytics
(Revised)

[Time: Three Hours] **[Max.Marks:80]**

Please check whether you have got the right question paper.

i) Q.no 1 & Q.no6 are compulsory.
ii) Solve any two questions from the remaining questions in each section.

Section A

Q.1 Solve any two 10

A) Explain how you examine big data's role in the future

B) Explain different big data application with examples

C) Explain any two big data analytics use cases in detail

Q.2 A) Explain how business data management problems are solved using big data? 08

B) Explain different sources of unstructured data with examples 07

Q.3 A) Explain the benefits and challenges of virtualized environment in big data 08

B) Explain the role of hypervisor in virtualization 07

Q.4 A) Explain various challenges of analyzing big data 08

B) What is text analytics? Explain the process of text analytics for unstructured data with an example. 07

Q.5 A)Explain following layers of the big data stack in detail 08
a) L3 : Organizing data services and tools
b) L4: Analytical data warehouses

B) What is NOSQL? Explain following kinds of NoSQL database with examples 07
a) Tabular stores,
b) Object Data stores

Section B

Q.6 Solve any two 10

A) Explain how hadoop provides a reliable shared storage and analysis system in detail

B) Justify following statement : HDFS is a file system designed for storing very large files with streaming data access patterns, running on clusters of commodity hardware

C) Explain following terms in detail
a) Grunt,
b) Pig Latin Editors

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Q.7	A) Explain how the data is analyzed using unix tools? Give an example	08
	B) Explain the working of Map Reduce data flow with a single reduce task. Give an example.	07
Q.8	A) Explain different kinds of hadoop file system interfaces with examples	08
	B) Explain different steps required for a client to write data to HDFS	07
Q.9	A) Write a program using pig to count number of occurrences of words from a given file	08
	B) explain following terms in detail a) Hive Tables, b) Querying Data in Hive	07
Q.10	A) Explain different kinds of hadoop project that are hosted by apache software foundation	08
	B) Write a short note on Basics of HBase and Zookeeper	07

Total No. of Printed Pages:2

SUBJECT CODE NO:- P-341
FACULTY OF ENGINEERING AND TECHNOLOGY
B.E. (IT) Examination May/June 2017
Image processing & Pattern Recognition [Elective-II]
(Revised)

[Time: Three Hours] **[Max.Marks:80]**

Please check whether you have got the right question paper.

N.B i) Q.no.1 and Q.no.6 are compulsory
ii) Attempt any two questions from the remaining questions from each section.
iii) Assume suitable data if necessary

Section A

Q.1 Answer the following (any five) 10
a) Define digital image
b) What is image enhancement?
c) What is meant by connectivity?
d) What is the need of image transform? Define DFT.
e) Given expression for 2D-DCT
f) Define image histogram.

Q.2 a) Consider the two image subset S_1 and S_2 shown in figure for $\vartheta = \{1\}$, determine whether the two subset are 08
i) 4-adjacent
ii) 8-adjacent
iii) m-adjacent

S_1	S_2
0 0 0 0	0 0 1 1
0 0 1 0	0 1 0 0
0 0 1 0	1 0 0 0
0 0 1 1	0 0 0 0

b) explain following image enhancement techniques 07
i) image negatives
ii) log transformations

Q.3 a) explain image enhancement in frequency domain along with filter transfer function for each of the low pass filter 08
b) elaborate haar transform in detail 07

Q.4 a) Describe fundamental steps in DIP with suitable diagram 08
b) Elaborate how first order derivative and second order derivative are used for image enhancement purpose 07

Q.5 Write short notes on (any three) 15
a) Linear smoothing filters
b) Unsharp masking
c) Comparison of different image transforms
d) Image sampling and quantization

Section B

Q.6	Answer the following (any 5)		10
	a)	What is threshold?	
	b)	Define dilation	
	c)	What is learning in pattern recognition?	
	d)	Define image description	
	e)	What is point detection?	
	f)	Define object recognition	
Q.7	a)	Discuss edge detection process in image segmentation	07
	b)	Differentiate between boundary descriptors and regional descriptors	08
Q.8	a)	Elaborate relationship between image processing and object recognition	08
	b)	Explain neural network based pattern recognition approach	07
Q.9	a)	Describe template matching based object recognition	08
	b)	Explain multivariable thresholding in detail	07
Q.10	Write short notes on (any 3)		15
	a)	Region split and merge algorithm	
	b)	Line detection	
	c)	Comparison between statistical and syntactic PR.	
	d)	Pattern and pattern classes	

Total No. of Printed Pages:2

SUBJECT CODE NO:- P-19
FACULTY OF ENGINEERING AND TECHNOLOGY
B.E.(CSE/ IT) Examination May/June 2017
Data Warehousing & Data Mining (CSE/IT)
(Revised)

[Time: Three Hours] **[Max.Marks:80]**

Please check whether you have got the right question paper.

N.B (i) Q.1 and Q.6 are compulsory. Solve any two questions from the remaining in each section.
(ii) Assume suitable data if necessary and state it clearly.

Section A

Q.1 a) What is Fact Table? 03
b) What is the structure of Dimension Table? 03
c) What is the difference between OLTP and OLAP? 04

Q.2 a) What is Multi-Dimensional Modeling? What is the use of Snowflake schema? 08
b) Describe the functions of various components in a typical Multi-tiered Data Warehouse architecture with the block diagram 07

Q.3 a) How is a Data Mining System integrated (coupled) with DW/DB system? 08
b) Explore and explain the use of data mining is in Web Search Engine? 07

Q.4 a) What are the methods of measuring data dissimilarity between objects of mixed types? 07
b) What is data dissimilarity? Two objects are represented by the tuples (22, 2, 10,6) and (20,0, 12, 8): 08
i) Compute the Euclidean distance between the two objects.
ii) Compute the Manhattan distance between the two objects.
iii) Compute the Minkowski distance between the two objects, using q=3

Q.5 a) What are the statistical parameters to measure central tendency of the data? 07
b) What are the major issues in data mining? 08

Section B

Q.6 a) What is the role of Confusion Matrix for Classifiers? 03
b) Define the Terms – Entropy and information Gain 03
c) What is the use of k-medoids algorithm? 04

Q.7 a) Give the working principle of Rule based Classifier-Using IF-THEN Rules. How do we calculate the accuracy and coverage of this classifier 08
b) What is the method of extracting rules from Decision Tree? 07

Q.8 a) Using Apriori algorithm find frequent itemsets for database given below. Use support =2. Generate association rules using confidence = 80% 10

TID	Items_bought
T10	{K,E,Y, M, O, N}
T20	{K,I,E, O, O, C}
T30	{K, E, Y, N, O, D}
T40	{C,K, E, M, A}
T50	{I, C, Y, M.K}

b) What is the general approach of classification using two phases- i)Learning ii) Testing 05

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Q.9	a) Cluster following points in three clusters. Take initially A1, B1 and C1 as Centre points Use k-means algorithm and show the final clusters formed (Use Euclidean distance.) A1(2,10), A2(2,5), A3(8,4), B1(5,8), B2(7,5), B3(6,4), C1(1,2), C2 (4,9).	10
	b) What do you understand by – Prediction, Classification, Clustering, Regression	05
Q.10	a) What are the steps for a successful BI implementation?	07
	b) What is the process of intelligence creation and use and BI Governance	08

Total No. of Printed Pages:1

SUBJECT CODE NO:- P-52
FACULTY OF ENGINEERING AND TECHNOLOGY
B.E.(CSE) Examination May/June 2017
Parallel & Distributed Computing
(Revised)

[Time: Three Hours] **[Max.Marks:80]**

Please check whether you have got the right question paper.

N.B i) Q.1 & Q.6 are compulsory.
ii) Attempt any two questions from the remaining questions in SECTION A & SECTION B, each.

Section A

Q.1	a) State and explain the advantages of Threaded Programming models.	05
	b) Define the following terms in CUDA. i)Grid ii)Blocks iii)Threads	05
Q.2	a)Explain the effect of memory latency with an appropriate example. How to improve the memory Latency?	08
	b) With a neat diagram explain the different types of memory in the CUDA GPU.	07
Q.3	a) Define Decomposition. Explain the method of Data decomposition with an example using output data Partition.	08
	b) With the example of sparse matrix-vector multiplication, explain the task Interaction Graph.	07
Q.4	a) Explain the Dynamic Interconnection network. Give two examples.	08
	b)Explain OPENMP programming model. Also discuss the parallel and for directive in OpenMP.	07
Q.5	a)With a neat state diagram, explain how the coherence is maintained using invalidate protocols.	08
	b)Explain CUDA C program structure in detail.	07

Section B

Q.6	a)State and explain Limitations of Distributed System.	05
	b)With a neat diagram explain general architecture of DSM Systems.	05
Q.7	a)Explain the temporal ordering of events using vector clock algorithm.	08
	b)Explain the method of communication between distributed objects and Remote Invocation.	07
Q.8	a)Explain Lamport's algorithm for mutual exclusion using Timestamps.	07
	b)Explain the following Hadoop Components. i)Name Node & Datanode ii)Secondary Name node iii)Job Tracker iv)Task Tracker	08
Q.9	a)With a neat diagram explain the general MapReduce data flow. Give appropriate example.	07
	b)With suitable examples explain the following Basic file management tasks in Hadoop. i)Adding files & Directories ii)Retrieving files iii)Deleting files.	08
Q.10	a)Explain the Granularity and Thrashing issues in the implementation of DSM.	08
	b)Explain any three consistency models in DSM.	07

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Total No. of Printed Pages:2

SUBJECT CODE NO:- P-83
FACULTY OF ENGINEERING AND TECHNOLOGY
B.E.(CSE) Examination May/June 2017
Principles of Compiler Design
(Revised)

[Time: Three Hours] **[Max.Marks:80]**

Please check whether you have got the right question paper.

N.B i)Q.No.1 and Q.No.6 are compulsory
ii) Attempt any two questions from Q.2 to Q.5 and from Q.7 to Q.10 of each section.
iii)Figure to the right indicate full marks

Section A

Q.1	a) List and explain any five compiler construction tools	05
	b) For the following assignment statement- position = initial +rate * 60 show the translation through all phases to compiler	05
Q.2	a) Explain the role of lexical analyzer Also explain with suitable examples- tokens, patters and lexemes.	07
	b) Draw the transition diagram to recognize following tokens – relational operators, unsigned numbers and white spaces	08
Q.3	a) with suitable diagram explain the design of lexical analyzer generator	07
	b) Explain the working of shift- reduce parser with suitable example	08
Q.4	a) for top-down parsing, write the rules to compute FIRST() and FOLLOW() functions	07
	b) Explain recursive descent parser with suitable example	08
Q.5	a) Compare between top-down and bottom –up parsing method	07
	b) Draw the model of LR parser, Also write the LR passing algorithm with function ACTION and GOTO	08

Section B

Q.6	a) What is directed acrylic graph? Construct the DAG for expression a + a * (b-c) + (b- c) *d	05
	b) What are the three address codes? Explain various types of three address codes.	05
Q.7	a) Write short note on – S_ attributed and L_ attributed definitions	07
	b) with suitable example, explain the steps to construct syntax tree for expressions	08
Q.8	a)Write short notes on- Type checking and type conversion	07
	b) write short note on- Data flow analysis	08
Q.9	a) Discuss various issues in the design of code generator	07
	b) What is local optimization of basic blode? With respect to basic block, explain- 1) DAG representation of basic block 2)local common sub expression 3) Dead code elimination 4)use of algebraic identities	08
Q.10	a) Explain with suitable examples; loop unrolling, and loop jamming and constant folding.	07
	b) Write short note on register allocation and assignment	08

Total No. of Printed Pages:1

SUBJECT CODE NO:- P-120
FACULTY OF ENGINEERING AND TECHNOLOGY
B.E.(CSE) Examination May/June 2017
Visual Modeling
(Revised)

[Time: Three Hours] **[Max.Marks:80]**

Please check whether you have got the right question paper.

N.B i) Q.No.1 and Q.No.6 are compulsory
ii) Attempt any two questions from the remaining questions in each section
iii) Assume suitable data wherever necessary.

Section A

Q.1	Solve any two a) Explain CRC cards b) Explain complexity of software c) Explain component diagram	10
Q.2	a) Explain the UML approach to software architecture b) Difference between analysis and design	07 08
Q.3	a) Explain steps to find actor in use case diagram. b) Explain the notations, features and importance of class diagram	07 08
Q.4	a) Write guidelines for creating activity diagram b) Explain the notations, features and importance of deployment diagram	07 08
Q.5	a) Draw and explain sequence diagram for courseware management system b) Draw and explain communication diagram for library management system	08 07

Section-B

Q.6	Solve any two a) Explain creational design pattern. b) Explain how design patterns help in redesign c) Explain MVC	10
Q.7	a) How to use a design pattern? b) How do we describe design pattern?	07 08
Q.8	a) Explain organizing the catalog b) Describe prototype design patter?	08 07
Q.9	a) Describe adapter design pattern b) Explain document editor using strategy design pattern	07 08
Q.10	a) Explain applicability and structure of command design pattern b) Explain consequences and implementation of observer design pattern	08 07

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Total No. of Printed Pages:1

SUBJECT CODE NO:- P-166
FACULTY OF ENGINEERING AND TECHNOLOGY
B.E.(CSE) Examination May/June 2017
Elective-I: Artificial Intelligence
(Revised)

[Time: Three Hours] **[Max.Marks:80]**

Please check whether you have got the right question paper.

N.B i) Q.No.1 from section A and Q.No.6 from section B are compulsory.
ii) Attempt any two questions from the remaining questions in each section
iii) Assume suitable data if necessary .

Section A

Q.1		What do you understand by an AI technique ? explain the tic-tac-toe game as an AI technique in detail	10
Q.2	a)	Why does knowledge plays an important role in AI application ? what are the approaches for knowledge representation .	08
	b)	What is the criteria for success? How turing test is helpful in deciding the criteria for success.	07
Q.3	a)	What is matching? What are different matching techniques available for rule based knowledge representation.	08
	b)	Discuss various task domains in AI. Also justify task domain of E-commerce application	07
Q.4	a)	different ate between 1) forward Vs backward reasoning 2) BFS and DFS	08
	b)	Consider following sentences and translate them into formulas in predicate logic 1) Jack likes all kinds of food 2) Apples are food 3) Bob eats tobacco and is still alive 4) Jimmy is Bill's friend	07
Q.5		Write short notes on 1) Matching 2) Conceptual dependency 3) Production system	15

Section –B

Q.6		Elaborate minimax search procedure in detail. How does it help in improving the best move selection process. justify with example	10
Q.7	a)	Explain hierarchical planning in detail	08
	b)	Elaborate explanation based learning with suitable example	07
Q.8	a)	Describe important steps involved in NLP. Give suitable example of each	08
	b)	What is an expert system? what are its advantages and disadvantages	07
Q.9	a)	What is case grammars? draw the parse trees for following sentences 1) Susan printed the file 2) The file was printed by Susan 3) The pie baked for three house	08
	b)	Discuss knowledge acquisition in MOLE and SALT systems in detail	07
Q.10	a)	Write short notes on a) Semantic analysis in NLP b) Reactive system c) Domain knowledge	15

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Total No. of Printed Pages:1

SUBJECT CODE NO:- P-167
FACULTY OF ENGINEERING AND TECHNOLOGY
B.E.(CSE) Examination May/June 2017
Elective-I: Cloud Computing
(Revised)

[Time: Three Hours] **[Max.Marks:80]**

N.B
i. Question no.1 and 6 are compulsory.
ii. Attempt any two questions from the remaining in each section.

Section A

Q.1	Write short notes on any two.		
	a)	Storage-as-a-service.	05
	b)	Monitoring-as-a-service.	05
	c)	Distributed computing.	05
Q.2	a)	Define cloud computing. Enlist and explain different service models.	08
	b)	Explain in detail about various types of cloud.	07
Q.3	a)	Explain in detail software-as-a-service. What are different advantages and disadvantages of SAAS?	08
	b)	Explain in detail about Business-process-as-a-service.	07
Q.4	a)	What is a web-service? Explain in detail about SOAP and RESTFUL web-service.	08
	b)	Explain in detail about desktop and Application virtualization.	07
Q.5	a)	Explain in detail about Identity-as-a-service.	08
	b)	Explain in detail about Amazon EC2 with a neat diagram.	07

SECTION-B

Q.6	Write short notes on any two		
	a)	Disaster Recovery.	05
	b)	Location Awareness.	05
	c)	Pig.	05
Q.7	a)	What is Big-Data? What are the challenges in handling Big-Data?	08
	b)	Explain in detail H Base.	07
Q.8	a)	Explain in detail infrastructure security at application level.	08
	b)	Enlist and explain various key privacy concerns of PII stored in cloud.	07
Q.9	a)	Explain in detail wireless Application protocol along with its protocol stack.	08
	b)	Explain in detail different types of mobile devices used to access mobile web services in cloud computing.	07
Q.10	a)	What are various cloud file systems? Explain in detail.	08
	b)	Explain in detail various Relational operations using Map-Reduce.	07

Total No. of Printed Pages:1

SUBJECT CODE NO:- P-168
FACULTY OF ENGINEERING AND TECHNOLOGY
B.E.(CSE) Examination May/June 2017
Elective-I: Multicore Computing
(Revised)

[Time: Three Hours] **[Max.Marks:80]**

N.B
1. Question no.1 from section A & question no.6 from section B is compulsory.
2. From the remaining questions in section A & B ,solve any two questions from each section.

Section A

Q.1	a)	Whether there will be change in multi core O.S. Vs single core O.S? What modifications do you expect in each?	05
	b)	What is SMP scheduling, AMP scheduling and SMP – AMP scheduling	05
Q.2	a)	Explain multicore architecture with suitable diagram?	08
	b)	What are issues a programmer has to consider while writing program for multicore architecture	07
Q.3	a)	Explain multi kernel architecture with suitable diagram.	08
	b)	Explain which version of windows is implementing multi kernel architecture? How?	07
Q.4	a)	What are harsh realities of parallelization? How they can be addressed?	08
	b)	Explain sequential & concurrency model with suitable example.	07
Q.5	a)	What is symmetric and asymmetric multiprocessing explain with suitable example?	08
	b)	What is difference between multiprogramming and multiprocessing explain with suitable example	07

Section B

Q.6	a)	What are possible over heads in parallel programming? How to estimate each?	05
	b)	How process to process communication occurs in parallel programming	05
Q.7	a)	Explain four performance metrics for parallel system	08
	b)	What is effect of granularity on performance of parallel system? Also explain overheads occurred during this process.	07
Q.8	a)	How tasks are decomposed & distributed among various processors? How issue of precedence constraints is addressed?	08
	b)	Explain various mapping techniques for load balancing?	07
Q.9	a)	Explain the architecture of windows with multi kernel multi core architecture	08
	b)	Differentiate between multi core Vs multi-processor O.S.	07
Q.10	a)	Explain Linux architecture supporting multicore architecture.	08
	b)	What is asymptotic analysis of parallel programming?	07

Total No. of Printed Pages:2

SUBJECT CODE NO:- P-171
FACULTY OF ENGINEERING AND TECHNOLOGY
B.E.(CSE/IT/ETC/EE) Examination May/June 2017
Elective-I: Inter Connection Networks
(Revised)

[Time: Three Hours] **[Max.Marks:80]**

Please check whether you have got the right question paper.

N.B 1) Q. No. 1 & Q. No. 6 are compulsory
2) Solve any two question from Q.2, Q.3, Q.4, & Q.5 in section 'A'
3) Solve any two question from Q.7, Q.8, Q.9 & Q.10 in section 'B'

Section A

Q.1 Solve any two 10

a) What is OSI Model? Explain with figure

b) Write different classes of IP addresses with its range and default subnet mask

c) What is IP routing? What are different types of routing?

Q.2 a) What is IP address? Explain public & private IP addresses 7
b) Write sub network no; Valid hosts and broadcast address for the following 8
i) 199.100.122.0/26
ii) 171.105.201.0/28

Q.3 a) write about following protocols with their port no.s 8
i) TELNET
ii) FTP
ii) SSH
iv) SMTP
b) Define VLSM & route summarization and explain each 7

Q.4 a) Write at least two lines about the following 8
i) AS
ii) Metric
iii) Convergence
iv) AD value
b) Draw figure explaining difference between OSI Model & TCP / IP Model. Write protocols of TCP / IP Model 7

Q.5 a)Write class, No. of network bits and host bits for- 8
i) 100.211.99.0/20
ii) 133.148.95.0/23
iii) 171.105.211.0/28
iv) 99.100.122.0/16
b) What is dynamic routing? Explain RIP-VZ protocol 7

Section B

Q.6	Solve any two a) Write features of switch write difference between hub & switch b) What is VLAN? What is importance of VLAN? c) Write commands for i) To create enable secret password ii) To create console & vty password iii) To create banner	10
Q.7	a)What are WAN encapsulation protocols? Explain PPP & HDLC protocol. b) What is Access control list? What are types of ACL?	7 8
Q.8	a) What is trunking in switches? What are it's types? Explain b) What is port security? Write commands for creating port security on switch ports	8 7
Q.9	a) Write step by step procedure to recover router password b) What is VTP? What are different modes of VTP? Explain each of them	7 8
Q.10	a) Write about standard and Extended ACL with configuration b) What is data encapsulation? Write how data changes it's form at each layer. write syntax of frame relay encapsulation	8 7

Total No. of Printed Pages:2

SUBJECT CODE NO:- P-172
FACULTY OF ENGINEERING AND TECHNOLOGY
B.E.(CSE/IT) Examination May/June 2017
Elective-I: Internet of Things
(Revised)

[Time: Three Hours] **[Max.Marks:80]**

Please check whether you have got the right question paper.

N.B 1) Q.1 & Q.6 are compulsory
2) solve any two question from remaining in each section

Section A

Q.1	a) What is IOT? Justify why to study IOT?	05
	b) Explain different characteristics of internet of things?	05
Q.2	a) Explain the vision of IOT in detail?	07
	b) Explain an emerging industrial structure for IOT?	08
Q.3	a) Describe in detail communication model used in IOT ?	08
	b) what is Zigbee? Explain Zigbee protocol architecture in detail?	07
Q.4	a) Compare TCP / IP protocol with IOT protocol stack	07
	b) Explain COAP protocol in detail	08
Q.5	Write short note (any three) i) M2M ii) NFC iii) Data visualization & IOT iv) RFID v) MQTT	15

Section B

Q.6	a)Explain Web of things with example	05
	b) Explain cloud of things in detail.	05
Q.7	a) Justify when to use WOT And when to use IOT?	07
	b) Explain IOT Analytics in detail?	08
Q.8	a) Explain architecture standardization for WOT?	07
	b) Explain different issues in IOT security and how it is overcome?	08
Q.9	a) Describe physical security in brief?	05
	b) Explain in detail with block diagram application of IOT in Healthcare	10

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Q.10 a) Write short notes (any three) 15

i) The role of IOT for increased Autonomy

ii) IOT Application deployment scenario

iii) Need of IOT security

iv) Platform middleware for WOT

v) IOT and Big Data

Total No. of Printed Pages:1

SUBJECT CODE NO:- P-173
FACULTY OF ENGINEERING AND TECHNOLOGY
B.E.(CSE/IT/ECT/EE) Examination May/June 2017
Elective-I: Learning Management System
(Revised)

[Time: Three Hours] **[Max.Marks:80]**

Please check whether you have got the right question paper.

N.B
1) Question No. 1 and Question No. 6 are compulsory
2) Solve any one question from Question No.2 and Question No.03
3) solve any one question from Question No.4 and Question No 5
4) solve any one question from Question No. 07 & Question No .08
5) solve any one question from Question No 09 & Question No 10

Section A

Q.1	Define the term digital content. Explain how digital contents are helpful in eLearning?	10
Q.2	A) What are different pricing model of LMS?	07
	B) Explain learning goals managed by LMS	08
	OR	
Q.3	A) Explain the general characteristics of LMS	07
	B) Explain offline content provisioning and player capabilities	08
Q.4	A) Explain the application of LMS in corporate industries	07
	B) Write a note on i) LMS skins & templates	08
	ii) Programming language & platform dependencies	
	OR	
Q.5	A) Who uses LMS? Explain the potential market of LMs application	07
	B) Explain the differences among virtual learning environment (VLEs) and LMS	08

Section B

Q.6	What is Data analytics? How it helps effective utilization of LMS?	10
Q.7	A) List the popular LMS used in Higher education. How it is useful to universities?	07
	B) Describe the requirement of LMS for Interface with external system & application?	08
	OR	
Q.8	A) Explain the course catalogue database	07
	B) What is Virtual immersive environment? How Moodle is applied to virtual world?	08
Q.9	A) List and describe various administrative tasks in Moodle	07
	B) Explain integration of Digital libraries with LMS	08
	OR	
Q.10	A) Explain Content importing and configuration in LMS	07
	B) Explain content Brokering systems in detail	08

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Total No. of Printed Pages:1

SUBJECT CODE NO:- P-227
FACULTY OF ENGINEERING AND TECHNOLOGY
B.E. (CSE/IT) Examination May/June 2017
Computer System Security and Laws (CSE/IT)
(Revised)

[Time: Three Hours] **[Max.Marks:80]**

Please check whether you have got the right question paper.
i) Q. no 5 & Q. no10 are compulsory
ii) Solve any two questions from remaining question in each section

Q.1	a) What is need of security in computer system? Explain CIA principle of security.	08
	b) What is Biometric? How biometric will helpful in achieving security.	07
Q.2	a) Explain how caeser cipher crypto system works with example.	07
	b) Explain RSA Algorithm with example.	08
Q.3	a) Explain AES Algorithm	07
	b) Differentiate between role based and rule based authentication.	08
Q.4	a) Differentiate between digital signature & digital certificates.	08
	b) Explain Kerberos in detail.	07
Q.5	Write short note on (any two) i) Firewalls. ii) Intrusion detection system iii) Virs and its stages.	10

Section-B

Q.6	i) Explain need of WAP protocol & define its working.	08
	ii) Define security in GSM & 3G.	07
Q.7	i) Define incident response life cycle.	08
	ii) Explain various steps in incident Handling	07
Q.8	i) How does WPA2 different from WPA and WEP?	08
	ii) Explain IEEE 802.11 protocols.	07
Q.9	i) What is IT ACT 2000? How it is useful	08
	ii) What is cyber forensics and explain its procedure	07
Q.10	i) Explain How NMAP and wireshark tool work out as forensic tool.	05
	ii) Describe any two cyber crime examples.	05

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Total No. of Printed Pages:1

SUBJECT CODE NO:- P-254
FACULTY OF ENGINEERING AND TECHNOLOGY
B.E. (CSE/IT) Examination May/June 2017
Mobile Computing (CSE/IT)
(Revised)

[Time: Three Hours] **[Max.Marks:80]**

Please check whether you have got the right question paper.

N.B
i. Q. No. 1 and Q. No. 6 are compulsory.
ii. Attempt any two questions from the remaining questions in each section.
iii. Assume suitable data if necessary.

Section A

Q.1	Solve (any two)		10
	i.	Explain iphone operating system.	
	ii.	List characteristics of smart phone.	
	iii.	Explain wireless networks in comparison to fixed networks.	
Q.2	a)	What is mobility management? Explain in detail.	08
	b)	Compare Symbian OS with android OS.	07
Q.3	a)	Explain channel assignment schemes in detail.	08
	b)	Compare 2G with 3G.	07
Q.4	a)	What is location dependent carrier sensing? Explain with hidden, Exposed and capture node.	08
	b)	What is difference between TDM and FDM?	07
Q.5	a)	What are different multiplexing scheme?	08
	b)	What are the advantages and disadvantages of cellular system?	07

Section B

Q.6	Solve any two		10
	i.	Explain events is WML script	
	ii.	Explain WLL	
	iii.	Explain care of adders (COA)	
Q.7	a)	Explain in detail CDPD architecture.	07
	b)	Explain in detail GPRS architecture and services.	08
Q.8	a)	What advantages does the use of IPV6 offer for mobility.	08
	b)	Explain agent advertisement and discovery process in mobile network layer.	07
Q.9	a)	Explain phone. com extensions.	08
	b)	List and explain functions of string library WML script.	07
Q.10	a)	Explain writing and formatting text in WML.	07
	b)	Explain the control structure of WML script.	08

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Total No. of Printed Pages:3

SUBJECT CODE NO:- P-286
FACULTY OF ENGINEERING AND TECHNOLOGY
B.E. (CSE) Examination May/June 2017
Soft Computing
(Revised)

[Time: Three Hours] **[Max.Marks:80]**

Please check whether you have got the right question paper.

N.B 1) Question No 1 and 6 are compulsory
2) Attempt any two question from the remaining question from each section
3) Assume data if necessary & state it clearly

Section A

Q.1 Attempt any two of the following 10

a) How ANN is used for pattern recognition tasks? Explain

b) Explain various types of soft computing techniques? Give its application

c) Explain Errors correction & gradient descent rule

Q.2 a) Explain feed forward neural network architecture & Give pattern recognition tasks solved by FFNN 08

b) Explain three basic models of ANN with its applications 07

Q.3 a) How perceptron learning law is used for pattern classification? Explain in detail with example. 07

b) Show by geometrical arguments that with 3-layers of non-liner units any hard classification problems can be solved 08

Q.4 a) What is Hopfield network? Explain algorithm to store and recall a set of bipolar patterns in Hopfield network 07

b) Train a hetero-associative memory network using hebb rule to store input row vector 08
$S = (S_1, S_2, S_3, S_4)$ to the outpour row vector $t = (t_1, t_2)$ The vector pairs are given in table

Input Target	S_1	S_2	S_3	S_4	t_1	t_2
1	1	0	1	0	1	0
2	1	0	0	1	1	0

Q.5 Write short notes (any three) 15
a) Bidirectional Associative memory
b) Limitation of single layer perceptron
c) Topologies of ANN
d) ANN Terminologies
1) Interconnection
2) Update
e) ANN Vs BNN

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Section B

Q.6 Answer the following (any two) 10

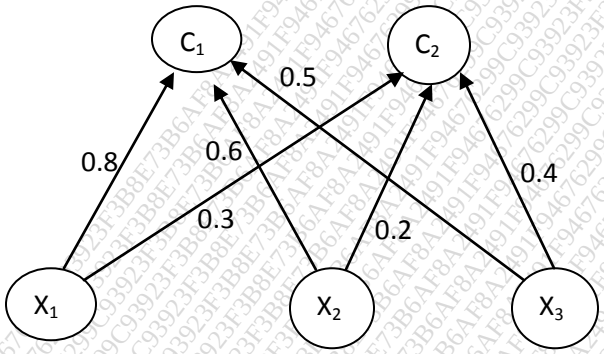
a) Explain pattern clustering network

b) Describe properties of fuzzy set

c) Distinguish between numerical variable and linguistic variable

Q.7 a) With architecture explain the training algorithm used in kohnen self-organizing feature map 07

b) Consider kohonen net with two clusters units & three input units. The weight vector for the cluster units are (0.8, 0.6, 0.5,) and (0.3, 0.2 0.4) find the winning cluster unit for the input vector (0.4, 0.2, 0.1) use learning rate of 0.2, find new weights for the winning unit 08



Q.8 a) Consider two fuzzy sets 07

$$A = \left\{\frac{1}{1.0} + \frac{0.75}{1.5} + \frac{0.3}{2.0} + \frac{0.15}{2.5} + \frac{0}{3}\right\}$$

$$B = \left\{\frac{1}{1.0} + \frac{0.6}{1.5} + \frac{0.2}{2.0} + \frac{0.1}{2.5} + \frac{0}{3}\right\}$$

Find A) AUB B) A∩B c) $\bar{B}$ d) $\overline{AUB}$

b)consider the following fuzzy sets 08

$$A = \left\{\frac{0.4}{30} + \frac{0.6}{60} + \frac{1.0}{100} + \frac{0.1}{120}\right\}$$

$$B = \left\{\frac{0.2}{20} + \frac{0.3}{40} + \frac{0.6}{60} + \frac{0.8}{80} + \frac{1.0}{100} + \frac{0.2}{120}\right\}$$

$$C = \left\{\frac{0.3}{500} + \frac{0.6}{1000} + \frac{0.9}{1500} + \frac{0.2}{1800}\right\}$$

Compute the relation $\tilde{R} = \tilde{A} \times \tilde{B}$ *and* $s = \tilde{B} \times \tilde{C}$

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Also find Fuzzy relation $\tilde{T} = \tilde{R} \ o \ \tilde{S}$ Using max-min composition

Q.9 a) Explain the following operations in fuzzy relational algebra with example 08

1) Join
2) Union
3) Projection
4) Selection

b) Explain any one application of fuzzy control 07

Q.10 Write short notes (Any three) 15

a) Membership function in fuzzy logic
b) Genetic algorithm
c) Application of competitive neural network
d) Learning vector quantization
e) Self-organizing map

SUBJECT CODE NO:- P-334

FACULTY OF ENGINEERING AND TECHNOLOGY

B.E. (CSE) Examination May/June 2017

Remote Sensing & Geographical Information System [Elective-II]

(Revised)

[Time: Three Hours] **[Max.Marks:80]**

Please check whether you have got the right question paper.

N.B i) Assume suitable data if necessary.
ii) Figures to the right indicate full marks.
iii) Q.No.1 and Q.No.6 are compulsory; solve any two questions from each section.

Section A

Q.1 a) What is remote sensing? Explain principles of remote sensing. 05
b) Explain i) Electromagnetic Radiations 05
ii) Electromagnetic spectrum

Q.2 a) What do you mean by remote sensing platform? Discuss various types of sensors , 08
b) Explain i) Temporal Resolution 07
ii) Errors in the imaging process

Q.3 a) Explain elements of image interpretation. 07
b) Explain i) Properties of digital remote sensing data. 08
ii) Geo-referencing.

Q.4 a) Explain Physical, mathematical and Hybrid models with respect to visual image Interpretation. 08
b) Explain i) Interpolation Methods. 07
ii) Nearest neighbor.

Q.5 Write short note on the following 15
i) Spectral signature
ii) Spatial Resolution
iii) World file.

Section B

Q.6 Explain in detail Image enhancement and image classification techniques. 10

Q.7 a) Define Geographical Information system, discuss elements of a GIS. 08
b) What is the need for GIS? Explain. 07

Q.8 a) Explain i) Image Registration 08
ii) Supervised & unsupervised Techniques
b) Explain Raster and Vector data models. 07

Q.9 a) Explain in detail vector data analysis. 07
b) What is cartography? How to display data? Explain. 08

Q.10 Write short note on the following 15
1) Web GIS 2) Data inputs for GIS 3) Data Exploration

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Total No. of Printed Pages: 1

SUBJECT CODE NO:- P-335
FACULTY OF ENGINEERING AND TECHNOLOGY
B.E. (CSE/IT) Examination May/June 2017
Green IT (CSE/IT) [Elective-II]
(Revised)

[Time: Three Hours] **[Max.Marks:80]**

Please check whether you have got the right question paper.

N.B i) Q.1& Q. 6 are compulsory.
ii) Solve any two questions from Q.2 to Q.5 for section A & any two questions from Q.7 to Q.10 sections B.
iii) Draw appropriate diagrams wherever necessary.

Section A

Q.1	a)	Explain the following terms:- i) Active software ii) Idle software.	04
	b)	Explain the various environmental impacts of IT.	06
Q.2	a)	Explain how the following hazardous chemicals used in manufacturing of a electronic device have effect on humans:- i) Lead ii) Cadmium iii) Mercury iv) Arsenic	08
	b)	Explain the various strategies to reduce the power consumption by desktop computers.	07
Q.3	a)	Write a note on Green House Gas Emissions.	07
	b)	Explain how computer's entire life cycle can be greened.	08
Q.4	a)	Write a note on following power tools. 1) Power Informer 2) Energy Checker	07
	b)	Explain how usability attribute can be used to asses sustainability of software.	08
Q.5	a)	Explain how server Design & Server systems. Development support Green Data center.	07
	b)	Write note on following energy Management techniques for Hard disks. 1) State Transitioning 2) Caching	08

Section B

Q.6	a)	Explain the various strategies suggested by business for social Responsibility (BSR), 2009 to reduce carbon emissions at all stages of business life cycle.	04
	b)	Indentify & discuss the four major ways in which organizations can gain value by greening an enterprise.	06
Q.7	a)	Explain the benefits of Energy efficient Networks.	07
	b)	Explain the Green cloud architecture in brief.	08
Q.8	a)	Explain the following features of clouds enabling green computing: 1) Dynamic Provisioning 2) Multi-tenancy 3) Server utilization 4) Data centre efficiency	08
	b)	Explain the five green & profit oriented policies employed for scheduling by Green Broker.	07
Q.9	a)	Write a note on Green supply chain & Logistics management.	07
	b)	What are the major elements of the value chain, and how does 'closing the Loop' relate to value chain?	08
Q.10	a)	Write note on E-commerce & Greening the extended Enterprise.	08
	b)	Explain in brief the concept of Smart Grid.	07

Total No. of Printed Pages:2

SUBJECT CODE NO:- P-336
FACULTY OF ENGINEERING AND TECHNOLOGY
B.E. (CSE/IT) Examination May/June 2017
Agile Methodology (CSE/IT) [Elective-II]
(Revised)

[Time: Three Hours] **[Max.Marks:80]**

Please check whether you have got the right question paper.

N.B 1) Q1 & Q.6 are compulsory questions.
2) Attempt any two questions from Q2 to Q.5 and from Q.7 to Q.10
3) Assume suitable data wherever necessary

Section A

Q.1 Solve any two questions 10
a) Explain any four practices of Extreme programming.
b) What is the difference between Epic, task and user story.
c) Explain product backlog in scrum.

Q.2 a) How agile estimation and planning is done? Explain planning poker 08
b) Explain Lean Software development. How we can use Lean principles for better project management 07

Q.3 a) Explain following meetings of scrum 08
i) Sprint planning
ii) Sprint review
iii) Sprint Retrospective
iv) Daily scrum

b) What is Agile lifecycle? Explain its impact on agile testing 07

Q.4 a)What is FDD? Explain the process of FDD with neat labeled diagram 08

b) Explain characteristics and content of user stories with suitable example 07

Q.5 a) What is Agile development model? Explain the different methodologies in agile software development. 08
b) Explain the following term 07
i) Story Point ii) Spike
iii) Product Owner iv) Scrum Master

Section B

Q.6	a) Explain Single Responsibility principle	05
	b) Explain the challenges in Agile	05
Q.7	a) State Dependency Inversion Principle. Explain DIP with suitable programming example.	08
	b) What is refactoring? Explain any four techniques of refactoring.	07
Q.8	a) What is Version Control System? Explain Remote and distributed version control system.	08
	b) What are the SOLID principles? Explain OCP with suitable example	07
Q.9	a) What is continuous integration? Explain the process of CI with suitable example.	08
	b) Explain Role of Agile in distributed team	07
Q.10	a) Explain the different roles in agile project	08
	b) What are the business benefits of agile methodology?	07

Total No. of Printed Pages:1

SUBJECT CODE NO:- P-337
FACULTY OF ENGINEERING AND TECHNOLOGY
B.E. (CSE/IT/ETC/EE) Examination May/June 2017
Elective-II Managing Advance Server
(Revised)

[Time: Three Hours] **[Max.Marks:80]**

Please check whether you have got the right question paper.

N.B i) Q.No.1 and Q.No.6 are compulsory.
ii) Attempt any two questions from the remaining questions in each section
.

Section A

Q.1	Answer any 2 from the following		10
	1)	Write note on Active directory	
	2)	Write purpose of creating DHCP reservation & exclusion range	
	3)	Write different versions of server 2012, and hardware requirement of server 2012	
Q.2	a)	Write what is DHCP and how to install & configure it	08
	b)	Write a note on DNS	07
Q.3	a)	Write what is virtual private network (VPN)	07
	b)	Why do we crate secondary zone and how do we configure it?	08
Q.4	a)	Write note on WSUS (window server update services) server.	07
	b)	Write note on	08
		i) NS resource record	
		ii) A record	
		iii) PTR record	
Q.5	a)	Write how to create a AD Domain user & how to add user in the domain	07
	b)	Write how to create home folder and roaming folder for domain user	08

Section B

Q.6	Write any 2 from the following		10
	a)	Write why do we create group policy?	
	b)	Write 2 types of Disk configuration?	
	c)	Write difference between local user and domain user.	
Q.7	a)	What is a purpose of domain trust relationship	07
	b)	Write procedure of forest trust relationship	08
Q.8	a)	What is RAID Technology, explain its type	07
	b)	Write difference between basic disk & dynamic disk	08
Q.9	a)	What is WDS server ? what is requirement to configure WDS on server 2012	08
	b)	Write a note on hyper –V	07
Q.10	a)	Write a note on AD container & objects	08
	b)	What is network load balancing (NLB)	07

Total No. of Printed Pages:2

SUBJECT CODE NO:- P-338
FACULTY OF ENGINEERING AND TECHNOLOGY
B.E. (CSE) Examination May/June 2017
Network Infrastructure Management [Elective-II]
(Revised)

[Time: Three Hours] **[Max.Marks:80]**

Please check whether you have got the right question paper.

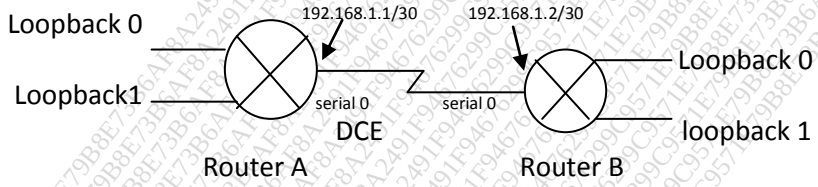
N.B 1) Q.no. 1 and Q.no. 6 are compulsory
2) Attempt any two from remaining questions from each section

Section A

Q.1 Solve any two 10
a) What is VLAN? How to configure it
b) What are the reasons in favour of subnetting and how to create a subnet?
c) To avoid routing and switching loops, what techniques are to be adopted.

Q.2 a) Write down the initial switch configuration such as setting up administrative VLAN, IP addresses, password, hostname, clock rate and saving the configuration 07
b) Subnet the following network address 08
172.16.10.0/255.255.255.224

Q.3 a) What do you mean by port security? How it can be implemented in a CISCO switch 07
b) Configure the network in the figure to allow full connectivity using the OSPF protocol, 08



Router A	Router B
Loopback 0=172.16.1.1/16	Loopback 0=172.30.1.1/16
Loopback 1=172.20.1.1/16	Loopback 1=172.31.1.1/16

Q.4 a) Enlist and explain protocols used in SAN and NAS 07
b) Explain the unified NAS implementation 08

Q.5 Write short note on any three 15
a) Ether channel
b) VTP
c) RIP
d) STP

Section B

Q.6 Solve any two 10
a) Explain the reactive fault management
b) Explain the different SNMP components
c) What do you mean by performance management

Q.7	a)	What is SMI and three attributes of SMI to handle any object	07
	b)	What is configuration management? Explain the two subsystem of configuration management	08
Q.8	a)	Draw the neat labeled diagram of SNMP PDU's and explain in detail	07
	b)	What is the role of SMI and MIB in network management	08
Q.9	a)	What is NAT based server load balancer?	07
	b)	Describe the traffic flow of NAT based SLB	08
Q.10	Write short note on any three		15

a) FLAT based SLB
b) SNMP
c) Security management
d) MIB

Total No. of Printed Pages:1

SUBJECT CODE NO:- P-339
FACULTY OF ENGINEERING AND TECHNOLOGY
B.E. (CSE) Examination May/June 2017
I- Phone Programming [Elective-II]
(Revised)

[Time: Three Hours] **[Max.Marks:80]**

Please check whether you have got the right question paper.

N.B i) Question no.1 and 6 are compulsory
ii) Attempt any two questions from the remaining in each section

Section A

Q.1	Solve any two questions		
	i)	Explain any two object oriented concept with objective-C?	05
	ii)	Explain similarities and difference of objective-C from C and C++?	05
	iii)	Explain with example inheritance concepts in objective C?	05
Q.2	a)	Explain Architecture of iOS and SDK framework?	08
	b)	Define delegates and protocols in iOS?	07
Q.3	a)	Define Autorelease pool and memory management?	08
	b)	Write a simple application to show use of basic controls?	07
Q.4	a)	Explain any three iOS layer?	08
	b)	Write a program in objective-c for mathematical operations?	07
Q.5	a)	What is X-code explain in brief?	08
	b)	What is objects classes? Example?	07

Section B

Q.6	Solve any two questions		
	i)	What is UI Alert? Example?	05
	ii)	What is Tab-bar application in iOS?	05
	iii)	Explain CoCoa? CoCoa Touch?	05
Q.7	a)	What is action and outlet and View Controller?	08
	b)	Write a Single view application in iPhone with basic UI element?	07
Q.8	a)	Write a program to create Accelerometer?	08
	b)	How to create Navigation base application in i?	07
Q.9	a)	Explain use of UI Table view controller?	08
	b)	Explain concept of NS object in iOS?	07
Q.10	a)	Write a program to show use of UI Switch of UI Slider control?	08
	b)	Write steps to create SQLite database?	07

Total No. of Printed Pages:1

SUBJECT CODE NO:- P-340
FACULTY OF ENGINEERING AND TECHNOLOGY
B.E. (CSE) Examination May/June 2017
Hadoop Technology [Elective-II]
(Revised)

[Time: Three Hours] **[Max.Marks:80]**

Please check whether you have got the right question paper.

N.B i) Q.no.1 and Q.no.6 are compulsory
ii) Attempt any two questions from the remaining in each section.

Section A

Q.1	Solve any two questions		
	i)	Write short notes on characteristics of big data	05
	ii)	Write short notes on pig Latin	05
	iii)	Write short notes on Hive	05
Q.2	a)	With a neat diagram explain pig architecture in detail	08
	b)	Mention various arithmetic and Relational operations used in pig tool	07
Q.3	a)	Explain in detail pig data types	08
	b)	Explain various debugging techniques used in pig	07
Q.4	a)	Describe in detail how Map-Reduce works in regard to Hadoop	08
	b)	Brief on the architecture of Hadoop distributed file system along with components	07
Q.5	a)	Mention out various fall backs of traditional RDBMS in handling big data	08
	b)	Explain in detail basic pig Latin statements	07

Section B

Q.6	Solve any two questions		
	i)	Write short notes on Amazon EMR	05
	ii)	Write short notes on SQoop	05
	iii)	Write short notes on HBase shell	05
Q.7	a)	Explain in detail the procedure of flume	08
	b)	Describe about YARN component in Hadoop	07
Q.8	a)	Depict HBase in detail	08
	b)	Explain in detail importing data into Hadoop cluster using SQoop	07
Q.9	a)	Explain in detail free form Query import in SQoop	08
	b)	Which shell is used in order to run commands of HBase. Mention out some Commands	07
Q.10	a)	Explain in detail the usage of zookeeper in Hadoop cluster	08
	b)	How to import only a subset of data using SQoop tool into Hadoop cluster	07