Shri Shankaracharya Technical Campus

(An Autonomous Institute affiliated to Chhattisgarh Swami Vivekananda Technical University Bhilai)

SCHEME OF EXAMINATION AND SYLLABUS

TCS -Computer Science and Business Systems- 2nd Sem

Sl. No.	Board of Studies (BOS)	Course Code	Courses	Period per Week			Scheme of Examination Theory/Lab			Total Marks	Credit
				L	T	P	ESE	CT	TA		
1.	Basic Sciences	AM102201	Linear Algebra	3	1	-	80	20	25	125	4
2.	Basic Sciences	AM102202	Statistical Methods	2	1	-	80	20	25	125	3
3.	Computer Science & Engineering	CS102203	Data Structures And Algorithms	3	0	-	80	20	25	125	3
4.	Electronics & Telecommunications Engineering	ET102204	Principles Of Electronics Engineering	2	0	-	80	20	25	125	2
5.	Management	MG102205	Fundamentals Of Economics	3	0	-	80	20	25	125	3
6.	Humanities	HM102206	Business Communication & Value Science – II	1		-	80	20	25	125	2
7.	Basic Sciences	AM102291	Statistical Methods Lab	-		2	40	-	20	60	1
8.	Computer Science & Engineering	CS102292	Data Structures And Algorithms Lab	-		2	40	-	20	60	1
9.	Electronic & Telecommunications Engineering	ET102293	Principles of Electronics Engineering Lab	-		2	40	-	20	60	1
10	Humanities	HM102294	Business Communication & Value Science – II			2	40		20	60	
11.	Civil Engineering	CE102295	Environmental Sciences	-	-	-	-	-	10	10	-
Total				14	2	8	640	120	240	1000	20

*After 2nd Sem: 4 Weeks – Exchange program among the Participating Institutes

L-Lecture   T-Tutorial   P-Practical

CT-Class Test   TA-Teachers Assessment   ESE-End Semester Exam

Note:
1. The teaching in the 1st and 2nd Semester will be divided in two groups consisting of various branches.
2. Applied Mathematics-I will be taught to both the groups in the first semester.
3. Self-Learning –I will be conducted by the humanities / relevant discipline as decided by the Director.

Subject	LINEAR ALGEBRA				
Subject Code	AM102201	L = 3	T = 1	P = 0	Credits = 4
Evaluation Scheme	ESE	CT	TA	-	ESE Duration
	80	20	25	Total-125	3 Hours

Course Objective	Course Outcomes

Unit 1: Introduction to Matrices and Determinants; Solution of Linear Equations; Cramer's rule; Inverse of a Matrix.

Unit 2: Vectors and linear combinations; Rank of a matrix; Gaussian elimination; LU Decomposition; Solving Systems of Linear Equations using the tools of Matrices.

Unit 3: Vector space; Dimension; Basis; Orthogonality; Projections; Gram-Schmidt orthogonalization and QR decomposition.

Unit 4: Eigenvalues and Eigenvectors; Positive definite matrices; Linear transformations; Hermitian and unitary matrices;

Unit 5: Singular value decomposition and Principal component analysis; Introduction to their applications in Image Processing and Machine Learning.

Note:
Assignments & tutorials covering the following: Vectors and linear combinations, Matrices, Linear transformations, Complete solution to Ax = b, Determinants, Eigenvalues and Eigenvectors

Text Books:

1. *Higher Engineering Mathematics, B. S. Grewal, Khanna Publishers.*

Reference Books:

1. *Advanced Engineering Mathematics, (Seventh Edition), Peter V. O'Neil, Cengage Learning.*
2. *Advanced Engineering Mathematics, (Second Edition), Michael. D. Greenberg, Pearson.*
3. *Introduction to linear algebra, (Fifth Edition), Gilbert Strang, Wellesley-Cambridge Press.*
4. *Applied Mathematics (Vol. I & II), P. N. Wartikar & J. N. Wartikar, Pune Vidyarthi Griha Prakashan.*
5. *Digital Image Processing, R C Gonzalez and R E Woods, Pearson.*
6. *https://machinelearningmastery.com/introduction-matrices-machine-learning/*

Subject	STATISTICAL METHODS				
Subject Code	AM102202	L = 2	T = 1	P = 0	Credits = 3
Evaluation Scheme	ESE	CT	TA	-	ESE Duration
	80	20	25	Total-125	3 Hours

Course Objective	Course Outcomes

Unit 1: Sampling Techniques: Random sampling. Sampling from finite and infinite populations. Estimates and standard error (sampling with replacement and sampling without replacement), Sampling distribution of sample mean, stratified random sampling.

Unit 2: Linear Statistical Models: Scatter diagram. Linear regression and correlation. Least squares method. Rank correlation. Multiple regression & multiple correlation, Analysis of variance (one way, two way with as well as without interaction).

Unit 3: Estimation: Point estimation, criteria for good estimates (un-biasedness, consistency), Methods of estimation including maximum likelihood estimation.
Sufficient Statistic: Concept & examples, complete sufficiency, their application in estimation.
Test of hypothesis: Concept & formulation, Type I and Type II errors, Neyman Pearson lemma, Procedures of testing.

Unit 4: Non-parametric Inference: Comparison with parametric inference, Use of order statistics. Sign test, Wilcoxon signed rank test, Mann-Whitney test, Run test, Kolmogorov-Smirnov test. Spearman's and Kendall's test. Tolerance region.

Unit 5: Basics of Time Series Analysis & Forecasting: Stationary, ARIMA Models: Identification, Estimation and Forecasting.

Text Books:
1. *Probability and Statistics for Engineers* (Fourth Edition), I.R. Miller, J.E. Freund and R. Johnson, Prentice Hall India Learning Private Limited.
2. *Fundamentals of Statistics* (vol. I & vol. II), A. Goon, M. Gupta and B. Dasgupta, World Press.
3. *The Analysis of Time Series: An Introduction*, Chris Chatfield, Chapman & Hall/CRC.

Reference Books:
1. *Introduction to Linear Regression Analysis,* D.C. Montgomery and E. Peck, Wiley-Interscience.
2. *Introduction to the Theory of Statistics*, A.M. Mood, F. A. Graybill and D.C. Boes, McGraw Hill.
3. *Applied Regression Analysis*, N. Draper and H. Smith, Wiley-Interscience.
4. *Hands-on Programming with R,* Garrett Grolemund, O'Reilly.
5. *R for Everyone: Advanced Analytics and Graphics,* Jared P. Lander, Addison-Wesley Professional.

Subject	DATA STRUCTURES AND ALGORITHMS				
Subject Code	CS102203	L = 3	T = 0	P = 0	Credits = 3
Evaluation Scheme	ESE	CT	TA	-	ESE Duration
	80	20	25	Total-125	3 Hours

Course Objective	Course Outcomes

Unit 1: Basic Terminologies and Introduction to Algorithm & Data Organisation: Algorithm specification, Recursion, Performance analysis, Asymptotic Notation - The Big-O, Omega and Theta notation, Programming Style, Refinement of Coding - Time-Space Trade Off, Testing, Data Abstraction

Unit 2: Linear Data Structure: Array, Stack, Queue, Linked-list and its types, Various Representations, Operations & Applications of Linear Data Structures

Unit 3: Non-linear Data Structure: Trees (Binary Tree, Threaded Binary Tree, Binary Search Tree, B & B+ Tree, AVL Tree, Splay Tree) and Graphs (Directed, Undirected), Various Representations, Operations & Applications of Non-Linear Data Structures

Unit 4: Searching and Sorting on Various Data Structures: Sequential Search, Binary Search, Comparison Trees, Breadth First Search, Depth First Search Insertion Sort, Selection Sort, Shell Sort, Divide and Conquer Sort, Merge Sort, Quick Sort, Heapsort, Introduction to Hashing

Unit 5: File: Organisation (Sequential, Direct, Indexed Sequential, Hashed) and various types of accessing schemes.
Graph: Basic Terminologies and Representations, Graph search and traversal algorithms and complexity analysis.

Text Books:

1. *Fundamentals of Data Structures*, E. Horowitz, S. Sahni, S. A-Freed, Universities Press.
2. *Data Structures and Algorithms*, A. V. Aho, J. E. Hopperoft, J. D. UIlman, Pearson.

Reference Books:

1. *The Art of Computer Programming: Volume 1: Fundamental Algorithms*, Donald E. Knuth.
2. *Introduction to Algorithms, Thomas*, H. Cormen, Charles E. Leiserson, Ronald L. Rivest, Clifford Stein, The MIT Press.
3. *Open Data Structures: An Introduction (Open Paths to Enriched Learning)*, (Thirty First Edition), Pat Morin, UBC Press.

Subject	PRINCIPLES OF ELECTRONICS ENGINEERING				
Subject Code	ET102204	L = 2	T = 0	P = 0	Credits = 2
Evaluation Scheme	ESE	CT	TA	-	ESE Duration
	80	20	25	Total-125	3 Hours

Course Objective	Course Outcomes

Unit 1: Semiconductors: Crystalline material: Mechanical properties, Energy band theory, Fermi levels; Conductors, Semiconductors & Insulators: electrical properties, band diagrams. Semiconductors: intrinsic & extrinsic, energy band diagram, P&N-type semiconductors, drift & diffusion carriers.

Unit 2: Diodes and Diode Circuits: Formation of P-N junction, energy band diagram, built-in-potential, forward and reverse biased P-N junction, formation of depletion zone, V-I characteristics, Zener breakdown, Avalanche breakdown and its reverse characteristics; Junction capacitance and Varactor diode. Simple diode circuits, load line, linear piecewise model; Rectifier circuits: half wave, full wave, PIV, DC voltage and current, ripple factor, efficiency, idea of regulation.

Unit 3: Bipolar Junction Transistors: Formation of PNP / NPN junctions, energy band diagram; transistor mechanism and principle of transistors, CE, CB, CC configuration, transistor characteristics: cut-off active and saturation mode, transistor action, injection efficiency, base transport factor and current amplification factors for CB and CE modes. Biasing and Bias stability: calculation of stability factor

Field Effect Transistors: Concept of Field Effect Transistors (channel width modulation), Gate isolation types, JFET Structure and characteristics, MOSFET Structure and characteristics, depletion and enhancement type; CS, CG, CD configurations; CMOS: Basic Principles

Unit 4: Feed Back Amplifier, Oscillators and Operational Amplifiers: Concept (Block diagram), properties, positive and negative feedback, loop gain, open loop gain, feedback factors; topologies of feedback amplifier; effect of feedback on gain, output impedance, input impedance, sensitivities (qualitative), bandwidth stability; effect of positive feedback: instability and oscillation, condition of oscillation, Barkhausen criteria. Introduction to integrated circuits, operational amplified and its terminal properties; Application of operational amplifier; inverting and non-inverting mode of operation, Adders, Subtractors, Constant-gain multiplier, Voltage follower, Comparator, Integrator, Differentiator

Unit 5: Digital Electronics Fundamentals: Difference between analog and digital signals, Logic ICs, half and full adder/subtractor, multiplexers, demultiplexers, flip-flops, shift registers, counters.

Text Books:

1. *Microelectronics Circuits*, Adel S. Sedra and Kenneth Carless Smith, Oxford University Press.
2. *Millman's Integrated Electronics*, Jacob Millman, Christos Halkias, Chetan Parikh, McGraw Hill Education.
3. *Digital Logic & Computer Design,* M. Morris Mano, Pearson

Reference Books:

1. *Electronic Devices and Circuit Theory*, Robert L. Boylestad, Louis Nashelsky.
2. *Solid State Electronic Devices*, 6th Edition, Ben Streetman, Sanjay Banerjee
3. *Electronic Principle*, Albert Paul Malvino.
4. *Electronics Circuits:Discrete & Integrated*, D Schilling C Belove T Apelewicz R Saccardi.
5. *Microelectronics*, Jacob Millman, Arvin Grabel.
6. *Electronics Devices & Circuits*, S. Salivahanan, N. Suresh Kumar, A. Vallavaraj
7. *Electronic Devices & Circuit Theory*, 11th Edition, Robert L. Boylestad, Louis Nashelsky.

Subject	FUNDAMENTALS OF ECONOMICS				
Subject Code	MG102205	L = 3	T = 0	P = 0	Credits = 3
Evaluation Scheme	ESE	CT	TA	-	ESE Duration
	80	20	25	Total-125	3 Hours

Course Objectives	Course Outcomes	
- To provide a brief understanding of basic principals in economy. - Understand the concepts of demand and supply. - Acquire knowledge on the principals of cost and other concept of production. - Understand the different market structure and its impact on price fixation - Introduction to macro economics and knowledge of various concepts of micro and macro economics in real time economy.	After completion of the subject students are able to: - Assess and understand the firm and the industry basic framework. - Gauge and incorporate consumer behavior in decision making by firm and consumer. - Understand the production process. - Understand and assess decision of an economy and its working. - Understand the relationship between world economy and Indian economy.	**Text Books:**

UNIT – I : Introduction of Micro Economics   **CO1**

Introduction: Firm, Industry and Micro Economics, Meaning and scope of economics, Function of economics, Utility maximization and consumption, Consumer and producer surplus, Price ceilings and price floors; consumer behavior, Aximos of choice, Budget constraints and Indifference curve, Consumer equilibrium.   **[8 Hrs.]**

UNIT – II: Demand and Supply   **CO2**

Demand Introduction, Theory of demand, Shifting and Expansion of demand, Elasticity of demand, Derivation of demand curve, theory of Supply, , Market equilibrium, Price and output- firm, Price and output- Industry, Intertemporal consumption, Supplier Income Effect, Decision Making.   **[7Hrs.]**

UNIT – III: Production Function   **CO3**

Introduction, Iso-quants, Iso-cost, Producer equilibrium, Cost Minimization, Cost curve_ Total, Average and Marginal cost, Long run and Short run cost, Equilibrium of a firm under monopoly, Monopolistic competition, Pricing decision under various market structure, Implication of pricing decision.   **[7Hrs.]**

UNIT – IV: Introduction of Macro Economics   **CO4**

Introduction, Aggregate demand and aggregate supply, circular flow of income, national Income and its Components (GNP, NNP, GDP, NDP), Consumption function, Investment, Simple Keynesian Model of Income Determination, Keynesian Multiplier, Government Sector, Tax and Subsidies.   **[7Hrs.]**

UNIT – V: Indian Economics   **CO5**

External sector, Export and Import, Money- Definitions: Demand for money, Transactionary and speculative demand, Supply of money, Bank credit creation multiplier, Integrated money and commodity market, IS ML Model, Business cycle and stabilization monetary and fiscal policy, Central bank and the government, Price and wage rigidity, Voluntary and Involuntary unemployment.   **[7Hrs.]**

S.No.	Title	Author(s)	Publisher
1	Economics (Indian Adaptation)	Samuelson & Nordhus	Tata McGraw- Hill

Reference Books:

S. No.	Title	Author(s)	Publisher
1	Managerial Economics	D. N. Dwivedi	Vikas Publication, New Delhi
2	Economics	Colander	Tata McGraw- Hill
3	Managerial Economics	Petersen, Lewis and Jain	Pearson Education
4	Managerial Economics	Suma Damodaran	Oxford University Press
5	Managerial Economics Analysis, Problems and Cases	P L Mehta	Sultan Chand and Sons
6	Managerial Economics: Theory and Applications	D. M. Mithani	Himalaya Publishing House

Subject	Business Communication & Value Science – II				
Subject Code	HM102206	L = 4	T = 0	P = 4	Credits = 4
Evaluation Scheme		ESE	CT	TA	-	ESE Duration
		80	20	30	Total-130	3 Hours

Course Objective	Course Outcomes

1. To develop effective writing, reading, presentation and groupdiscussion skills.
2. To help students identify personality traits and evolve as abetter team player.
3. To introduce them to key conceptsof
   a) Morality
   b) Behavior and beliefs
   c) Diversity & Inclusion
4. To make students understand the concepts of Morality and Diversity practically
5. To acquaint students of various personal intrapersonal skills.
	On successful completion of the course, the students will be able to :
	CO1 : Use electronic/social media to share conceptsand ideas
	CO2 : Understand the basics of presentation
	CO3 : Understand tools for quick reading.
	CO4 : Identify individual personality types and rolein a team.
	CO5 : Students will have learned the basic concepts of Morality and Diversity

Unit – I :	**Writing:** Elements of Good and Bad writing (e.g. ABC of writing, cohesion & coherence etc.,), Common errors – Rules of Punctuation – Use of words – Lucid writing – Catherine Morris and Joanie McMahon's writing techniques.	CO1 [08 Hrs.]
Unit – II:	**Reading –** Skimming-Scanning – Active and Passive reading – Note making skills: making notes from books or any form of writing materials – Intensive reading – Give Examples for the same. Critical reading, Comprehension skills – Extensive and Intensive Reading	C03 [08 Hrs.]
Unit –III:	**Presentation and Personality Skill** – Elements of Presentation Strategies – Objectives Medium-Key Ideas-Structuring the material-Organizing content – Audio visual aids – Handouts. Use of Powerpoint – Clarity of presentation – Non-verbal Communication – Seminar paper presentation. Discussion – work with an NGO and make a presentation. ORAI	CO2 [08 Hrs.]
Unit –IV:	**Personality :** Types – Traits – Dr. Meredith Belbin and his research on team work and how individuals contribute – Dr. Meredith Belbin's 8 Team Roles - Lindgren's Big 5 personality traits – Belbin's 8 team player styles. **Group Discussion :** Types – Dos – Don'ts	CO4 [09 Hrs.]
Unit- V:	**Inclusion –** Definition – concept of Inclusion – workplace inclusion – 7 pillars of inclusion. How to promote inclusion-Examples **Morality** – Definition- Purpose – Importance- Types – Examples – Morality vs. Ethics **Diversity** – Definition – Different forms of diversity in our society – Examples Discussion on TCS values, Respect for Individual and Integrity	CO5 [09 Hrs.]

Reference Books:

1. Guiding Souls : Dialogues on the purpose of life; Dr. A.P.J Abdul Kalam ;Publishing Year-2005; Co-author--Arun Tiwari
2. The Family and the Nation; Dr. A.P.J Abdul Kalam; Publishing year: 2015; Co-author: AcharyaMahapragya
3. The Scientific India: A twenty First Century Guide to the World around Us; Dr. A.P.J Abdul Kalam;Publishing year: 2011; Co-author- Y.S.Rajan
4. Forge Your Future: Candid, Forthright, Inspiring ; Dr. A.P.J Abdul Kalam; Publishing year: 2014
5. Abundance: The Future is Better Than You Think; Peter H. Diamandis and Steven Kotler; Published:21 Feb, 2012; Publisher: Free Press
6. Start With Why: How Great Leaders Inspire Everyone to Take Action; Simon Sinek; Published: 6October 2011; Publisher: Penguin
7. Advertising & IMC: Principles and Practice; Sandra Moriarty, Nancy D. Mitchell, William D. Wells;Published: 15 June 2016; Publisher: Pearson Education India

Web References:

ETHICS FUNDAMENTALS AND APPROACHES TO ETHICS
https://www.eolss.net/Sample-Chapters/C14/E1-37-01-00.pdf

A Framework for Making Ethical Decisions
https://www.brown.edu/academics/science-and-technology-studies/framework-making-ethical-decisions

Five Basic Approaches to Ethical Decision-
http://faculty.winthrop.edu/meelerd/docs/rolos/5_Ethical_Approaches.pdf

Online Resources:

i. https://youtu.be/CsaTslhSDI

ii. https://m.youtube.com/watch?feature=youtu.be&v=IIKvV8_T95M

iii. https://m.youtube.com/watch?feature=youtu.be&v=e80BbX05D7Y

iv. https://m.youtube.com/watch?v=dT_D68RJ5T8&feature=youtu.be

v. https://m.youtube.com/watch?v=7sLLEdBgYYY&feature=youtu.be

Subject	STATISTICAL METHODS LAB				
Subject Code	AM102291	L = 0	T = 0	P = 2	Credits = 1
Evaluation Scheme	ESE	CT	TA	-	ESE Duration
	40		20	Total-60	

Course Objective	Course Outcomes

Laboratory

R statistical programming language: Introduction to R, Functions, Control flow and Loops, Working with Vectors and Matrices, Reading in Data, Writing Data, Working with Data, Manipulating Data, Simulation, Linear model, Data Frame, Graphics in R

Data Source:

- www.rbi.org.in

Text Books:
4. *Probability and Statistics for Engineers* (Fourth Edition), I.R. Miller, J.E. Freund and R. Johnson, Prentice Hall India Learning Private Limited.
5. *Fundamentals of Statistics* (vol. I & vol. II), A. Goon, M. Gupta and B. Dasgupta, World Press.
6. *The Analysis of Time Series: An Introduction*, Chris Chatfield, Chapman & Hall/CRC.

Reference Books:
6. *Introduction to Linear Regression Analysis,* D.C. Montgomery and E. Peck, Wiley-Interscience.
7. *Introduction to the Theory of Statistics*, A.M. Mood, F. A. Graybill and D.C. Boes, McGraw Hill.
8. *Applied Regression Analysis*, N. Draper and H. Smith, Wiley-Interscience.
9. *Hands-on Programming with R,* Garrett Grolemund, O′Reilly.

R for Everyone: Advanced Analytics and Graphics, Jared P. Lander, Addison-Wesley Professional.

Subject	DATA STRUCTURES AND ALGORITHMS LAB				
Subject Code	CS102292	L = 0	T = 0	P = 2	Credits = 1
Evaluation Scheme	ESE	CT	TA	-	ESE Duration
	40	-	20	Total-60	

Course Objective	Course Outcomes

Laboratory

1. Towers of Hanoi using user defined stacks.
2. Reading, writing, and addition of polynomials.
3. Line editors with line count, word count showing on the screen.
4. Trees with all operations.
5. All graph algorithms.
6. Saving / retrieving non-linear data structure in/from a file

Text Books:

3. *Fundamentals of Data Structures*, E. Horowitz, S. Sahni, S. A-Freed, Universities Press.
4. *Data Structures and Algorithms*, A. V. Aho, J. E. Hopperoft, J. D. UIlman, Pearson.

Reference Books:

4. *The Art of Computer Programming: Volume 1: Fundamental Algorithms*, Donald E. Knuth.
5. *Introduction to Algorithms, Thomas*, H. Cormen, Charles E. Leiserson, Ronald L. Rivest, Clifford Stein, The MIT Press.
6. *Open Data Structures: An Introduction (Open Paths to Enriched Learning)*, (Thirty First Edition), Pat Morin, UBC Press.

Subject	PRINCIPLES OF ELECTRONICS ENGINEERING				
Subject Code	ET102293	L = 0	T = 0	P = 2	Credits = 1
Evaluation Scheme	ESE	CT	TA	-	ESE Duration
	40		20	Total-60	

Course Objective	Course Outcomes

Laboratory

1. *Semiconductor Diodes and application,*
2. *Transistor circuits,*
3. *JFET, oscillators and amplifiers.*

Text Books:

4. *Microelectronics Circuits*, Adel S. Sedra and Kenneth Carless Smith, Oxford University Press.
5. *Millman's Integrated Electronics*, Jacob Millman, Christos Halkias, Chetan Parikh, McGraw Hill Education.
6. *Digital Logic & Computer Design,* M. Morris Mano, Pearson

Reference Books:

8. *Electronic Devices and Circuit Theory*, Robert L. Boylestad, Louis Nashelsky.
9. *Solid State Electronic Devices*, 6th Edition, Ben Streetman, Sanjay Banerjee
10. *Electronic Principle*, Albert Paul Malvino.
11. *Electronics Circuits:Discrete & Integrated*, D Schilling C Belove T Apelewicz R Saccardi.
12. *Microelectronics*, Jacob Millman, Arvin Grabel.
13. *Electronics Devices & Circuits*, S. Salivahanan, N. Suresh Kumar, A. Vallavaraj
14. *Electronic Devices & Circuit Theory*, 11th Edition, Robert L. Boylestad, Louis Nashelsky.

Subject	Business Communication & Value Science – II LAB				
Subject Code	CS102294	L = 0	T = 0	P = 2	Credits = 1
Evaluation Scheme	ESE	CT	TA	-	ESE Duration
	40	-	20	Total-60	

Course Objective	Course Outcomes

Laboratory

Text Books:

1. Guiding Souls : Dialogues on the purpose of life; Dr. A.P.J Abdul Kalam ;Publishing Year-2005; Co-author--Arun Tiwari
2. The Family and the Nation; Dr. A.P.J Abdul Kalam; Publishing year: 2015; Co-author: AcharyaMahapragya
3. The Scientific India: A twenty First Century Guide to the World around Us; Dr. A.P.J Abdul Kalam;Publishing year: 2011; Co-author- Y.S.Rajan
4. Forge Your Future: Candid, Forthright, Inspiring ; Dr. A.P.J Abdul Kalam; Publishing year: 2014
5. Abundance: The Future is Better Than You Think; Peter H. Diamandis and Steven Kotler; Published:21 Feb, 2012; Publisher: Free Press
6. Start With Why: How Great Leaders Inspire Everyone to Take Action; Simon Sinek; Published: 6October 2011; Publisher: Penguin
7. Advertising & IMC: Principles and Practice; Sandra Moriarty, Nancy D. Mitchell, William D. Wells;Published: 15 June 2016; Publisher: Pearson Education India