

Krantiguru Shyamji Krishna Verma Kachchh University, Bhuj
Master of Science (Computer Applications & Information Technology)
Semester: V

Paper Code: CCCS517		Total Credit : 4 Total Marks : 70 Time : 3 Hrs
Title of Paper: Internet Programming With Java		
Unit		
	Description	Weighting
I	Introduction to OOP, Features and Evolution of JAVA, Byte code and JVM, Applications, Applets, Classes, Objects, Encapsulation, Garbage Collection, C++ v/s. JAVA, Data types, Variables, Operators, Associativity and Precedence, Expressions, Type Conversion, Comments, Arrays, Keywords, Methods, Arguments and Return Values, Static v/s. Instance Members, Command-Line Arguments, Escape sequences. Control Structures (if, switch...case), Loops(for, while, do...while), Constructors.	20%
II	Access Specifiers, Subclasses, Inheritance, Method Overriding, Interfaces and Packages, Access Control and Packages, Exception Handling, Custom Exceptions.	20%
III	Java Class Libraries, The Integer Class, Random Class, Date Class, Calendar and Gregorian Calendar Classes, Vector Class and Enumeration Interface, Stack Class, Hashtable Class, StringTokenizer Class, Files and Directories, Character Streams, Buffered Character Streams, The PrintWriter Class, Byte Streams, Random Access Files, The StreamTokenizer Class Networking Internet Addresses, ServerSockets and Sockets, Datagram Sockets and Packets, Uniform Resource Locators	20%
IV	Introduction to visual programming in JAVA with AWT and Swing. GUI Components. Event Handling, Applets and the Life Cycle. The Applet Class, The Graphics Class, Colors, Text, Applet Dimensions	20%
V	Database Drivers, jdbc-odbc bridge, connection, Performing the Basis SQL commands, Resultset Interface, Prepared Statement, Mapping SQL types to java, Overview of JSP, Multithreaded Programming, Synchronization, Deadlock, Thread Communication.	20%
Basic Text & Reference Books :-		
1.	Balagurusamy, Programming with Java: A printer-Second Edition, Tata McGraw-Hill,2000	
2.	Naughton & Schildt, JAVA: The Complete Reference, Tata McGraw Hill.	

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Unit	Description		Total Marks
I	Q.1 (A) Answer the Following. (Definitions, Blanks, Full Forms, True/False, Match the Following)	06	14
	Q.1 (B) Medium / Long Questions. (With Internal Option)	08	
II	Q.2 (A) Answer the Following. (Definitions, Blanks, Full Forms, True/False, Match the Following)	06	14
	Q.2 (B) Medium / Long Questions. (With Internal Option)	08	
III	Q.3 (A) Short / Medium Questions (With Internal Option)	06	14
	Q.3 (B) Medium / Long Questions. (With Internal Option)	08	
IV	Q.4 (A) Short / Medium Questions (With Internal Option)	06	14
	Q.4 (B) Program based on Java. (With Internal Option)	08	
V	Q.5 (A) Short / Medium Questions (With Internal Option)	06	14
	Q.5 (B) Program based on Java. (With Internal Option)	08	

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Paper Code: CCCS518		Total Credit : 4 Total Marks : 70 Time : 3 Hrs
Title of Paper: Computer Network – I		
Unit		
	Description	Weighting
I	Introduction LAN, MAN, WAN, Types of networks [LAN, WAN, WLAN, MAN, SAN, PAN, EPN & VPN], Types of transmission [Simplex, Half Duplex, Full Duplex], PSTN, Switching techniques	20%
II	The Application Layer - I HTTP, HTTPS, TELNET, DNS, FTP, DHCP, IMAP	20%
III	The Application Layer – II POP, LDAP, RIP, SMTP, SSH, TLS & SSL	20%
IV	The Physical Layer - I Guided Transmission Media [Twisted Pair, Fiber Optics, Coaxial], Cabling [cross, straight], IEEE 802.3 Ethernet standard, RJ45 ,RJ11	20%
V	The Physical Layer - II Router, Switch, Hub, Analog Modulation, Digital modulation: Modem - phase shift keying - bit rate - baud rate , QAM (Quadrature amplitude modulation)	20%
Basic Text & Reference Books :-		
1.	Computer Networks 4th Edition - Andrew Tanenbaum	
2.	Computer Networking: A Top-Down Approach Featuring the Internet By James F.Kurose , Keith W.Ross	
3.	Data Communication & Networking 4th Edition By Behrouz A.Forouzan	

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Paper Code: CCCS518			Total Credit : 4 Total Marks : 70 Time : 3 Hrs
Title of Paper: Computer Network – I			
Unit	Description		Total Marks
I	Q.1 (A) Answer the Following. (Definitions, Blanks, Full Forms, True/False, Match the Following)	06	14
	Q.1 (B) Medium / Long Questions. (With Internal Option)	08	
II	Q.2 (A) Answer the Following. (Definitions, Blanks, Full Forms, True/False, Match the Following)	06	14
	Q.2 (B) Medium / Long Questions. (With Internal Option)	08	
III	Q.3 (A) Short / Medium Questions (With Internal Option)	06	14
	Q.3 (B) Medium / Long Questions. (With Internal Option)	08	
IV	Q.4 (A) Short / Medium Questions (With Internal Option)	06	14
	Q.4 (B) Medium / Long Questions. (With Internal Option)	08	
V	Q.5 (A) Short / Medium Questions (With Internal Option)	06	14
	Q.5 (B) Medium / Long Questions. (With Internal Option)	08	

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Paper Code: CCCS519	Total Credit : 04
Title of Paper: Practical Based on CCCS517	Total Marks : 70
	Time : 3 Hrs
<ol style="list-style-type: none"> 1. Write a Simple Application to print any trigonometric / mathematical formula. 2. Find the greatest of numbers. 3. Write a program to display a table in the format $n \times i = m$ 4. Create a program using switch case statement to identify the day of the week. 5. Write a program to find greatest and smallest element of an array. 6. Write a program to sort the array using bubble sort. 7. Write a program to accept string as a command line argument and display the string in reverse order. 8. Write a small program that accepts an argument from the user and checks it for the palindrome. 9. Write a program to check the format of email address given by the user as command line argument. 10. Create a class, which has a method to calculate the area of a triangle and use it. 11. Create a class with two methods for calculating area and parameter of triangle. Create another class and initialize the instance of the former class and calculate the area and perimeter. 12. Create a class with a method, which accept an object of the same class as a parameter and calculates the addition of two matrices. 13. Create a class quadrilateral and create two methods each for calculating area and perimeter of the quadrilateral with one and two parameters respectively. 14. Create a class with a constructor, which initializes all the class level variable and display the values of the variables. 15. Create a base class called vehicle which contains properties called color, wheels. Create a child class car and which has properties called model no and make. Use the object of the child class which will define the different properties of a car. 16. Create a method to calculate the area and perimeter of a circle. Extend the semicircle class child of circle class and override the method to calculate the area and perimeter of a semicircle (if possible use this and super keywords) 17. Create a class, which has two methods each of static and non-static nature. Try to use them in any class of your choice and enlist the different interfaces and packages. 18. Create an interface called arithmetic, which defines methods for sum, multiplication, division, subtraction, percentage and implement of them. 19. Create a package, which holds the class and an interface defined in the previous question and use them in your main method/class. 20. Create an abstract class and try to use if. Enlist the problems that come. Create an abstract class inherit it and implement the methods of the abstract class, e.g. People – Student. 21. Create an inner class shape which has a method called pyramids to create a pyramid scheme. Use this method in the outer class. 22. Write a program to handle an exception using try and catch block (Zero division problem) 23. Define an exception “Not Found” that is thrown when a string is not equal to “India” write a program that uses this exception. 24. Write a program, which displays the use of finally. Explain how it is different or similar to catch. 25. Write a program, which shows use of array out of band exception. 	

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Paper Code : CCCS519		Total Credit : 4	
Title of Paper: Practical Based on CCCS517		Total Marks : 70	
		Time : 3 Hrs	
Unit	Description		Total Marks
I	Q.1 (A) Viva – Voce	20	70
	Q.1 (B) Practical	50	

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Paper Code: CCCS520	Total Credit : 04
Title of Paper: Practical Based on CCCS518 and elective courses	Total Marks : 70
Time : 3 Hrs	
Computer Network Practical List	
<ol style="list-style-type: none">1. Telnet Connectivity2. Ftp Connections3. DHCP Connections4. SSH Connection5. POP & IMAP Connectivity Using Thunderbird6. Cabling [cross, straight]7. Router Configuration8. Switch Configuration	

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Paper Code : CCCS520		Total Credit : 4	
Title of Paper: Practical Based on CCCS518 and elective courses		Total Marks : 70	
		Time : 3 Hrs	
Unit	Description		Total Marks
I	Q.1 (A) Viva – Voce	20	70
	Q.1 (B) Practical	50	

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Paper Code: FCCS506		Total Credit : 4 Total Marks : 70 Time : 3 Hrs
Title of Paper: Soft Skills and Personality Development		
Unit		
	Description	Weighting
I	Introduction to Soft Skills and Hard Skills, Break the ice berg – FEAR, Self Development - Etiquette and Manners. The Self Concept: Attitude, The process of attitude formation, positive attitude, How to build a success attitude, You are the chief architecture of yourself. Self Management Techniques. Believe in yourself: Self Image and Self Esteem, Building Self Confidence, Environment we mix with, How to build self image?.	
II	Meaning and definition of personality, Personal Planning and Success Attitude: Prioritizing, Creating the master plan, Active positive visualization and Spot analysis. Self Motivation and Communication: Levels of motivation, power of irresistible enthusiasm, etiquettes and manners in a group, public speaking, Importance of listening and responding	
III	Motivation Skills & Personality Development, Goal Setting, Career Planning, Resume Building, Psychometric Test, Priority Management & Time Management, Positive Attitude and Self Confidence. Verbal Communication includes Planning, Preparation Delivery, Feedback and assessment of activities like: Public speaking, Group Discussion, Oral Presentation skills, Perfect Interview, Listening and observation skills, body language and use of Presentation aids.	
IV	Written communication that includes project proposals, brochures, newsletters, articles. Etiquettes that include: etiquettes in social as well as office settings, email etiquettes, telephone etiquettes. Improving Personal Memory, study skills that include rapid reading, notes taking and creativity	
V	Problem Solving and Decision Making Skills, Perceptive, Conceptual, Creative, Analytical and Decisive. Leadership as a process: co-ordination while working in a team, Leadership styles, Leader and Team player, Management of conflict, Profiles of great and successful personalities, Role of career planning in personality development, negotiation, Motivating.	
Basic Text & Reference Books :-		
1.	Wallace : Personality Development 1st Edition, 2008 Cengage Learning India.	
2.	Succeed for your self -Richard Denny (3rd edition)- Kogan page India www.vivagroupindia.com.	
3.	Unleashing Leadership – John Hoover & Angelo Valenti – Jaico publishing House	
4.	Listening and Responding – Sandra D.Collins-Cengage Learning India.	
5.	1,001 ways to inspire your organization, your team and your self – David E. Rye- Jaico publishing house.	

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Paper Code: FCCS506			Total Credit : 4 Total Marks : 70 Time : 3 Hrs
Title of Paper: Soft Skills and Personality Development			
Unit	Description		Total Marks
I	Q.1 (A) Answer the Following. (Definitions, Blanks, Full Forms, True/False, Match the Following)	06	14
	Q.1 (B) Medium / Long Questions. (With Internal Option)	08	
II	Q.2 (A) Answer the Following. (Definitions, Blanks, Full Forms, True/False, Match the Following)	06	14
	Q.2 (B) Medium / Long Questions. (With Internal Option)	08	
III	Q.3 (A) Short / Medium Questions (With Internal Option)	06	14
	Q.3 (B) Medium / Long Questions. (With Internal Option)	08	
IV	Q.4 (A) Short / Medium Questions (With Internal Option)	06	14
	Q.4 (B) Medium / Long Questions. (With Internal Option)	08	
V	Q.5 (A) Short / Medium Questions (With Internal Option)	06	14
	Q.5 (B) Medium / Long Questions. (With Internal Option)	08	

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Paper Code: CECS510		Total Credit : 4 Total Marks : 70 Time : 3 Hrs
Title of Paper: Information Security		
Unit		
Unit	Description	Weighting
I	Introduction to computer security What Is Computer Security? A Broader Definition of Security	10
II	Security Policy Introduction, Corporate Policy, Information Security Policy, Concepts, Classification of information, Personnel Security policy, Ethics, Password Policy, General Software Policy, Networks, Internet, Laptops and portable computers	20
III	Computer and Network Policy System administration policy, Physical security, Access Control, Logon Policy, Assurance, Accountability and Audit , Reliability of Service, Network Policy Network / Distributed Systems Policy: Dial-in access, Dial-out, Internet Firewall, Interfaces to other networks	25
IV	Incident Response Procedure, Software Development Policy, General Guidelines, Production Guidelines, Business Continuity Planning, Enforcement, Physical Security, Buildings, Transport of Data, Backups, Disks, Laptops / mobile computers, Printers, Computers, Clean desk principle	25
V	System Security(book no-2) Intruders : Intruders, Intruders detection, Password management. Malicious Software: Viruses and Related Threats Firewalls: Firewalls Design principle, established systems.	20
Basic Text & Reference Books :-		
1.	IT Security Cook Book(http://www.boran.com/security)	
2.	Cryptography and Network Security (2nd edition), William Stallings, Pearson	

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Paper Code: CCCS103			Total Credit : 4 Total Marks : 70 Time : 3 Hrs
Title of Paper: Practical Based on CCCS101			
Unit	Description		Total Marks
I	Q.1 (A) Answer the Following. (Definitions, Blanks, Full Forms, True/False, Match the Following)	06	14
	Q.1 (B) Medium / Long Questions. (With Internal Option)	08	
II	Q.2 (A) Answer the Following. (Definitions, Blanks, Full Forms, True/False, Match the Following)	06	14
	Q.2 (B) Medium / Long Questions. (With Internal Option)	08	
III	Q.3 (A) Short / Medium Questions (With Internal Option)	06	14
	Q.3 (B) Medium / Long Questions. (With Internal Option)	08	
IV	Q.4 (A) Short / Medium Questions (With Internal Option)	06	14
	Q.4 (B) Medium / Long Questions. (With Internal Option)	08	
V	Q.5 (A) Short / Medium Questions (With Internal Option)	06	14
	Q.5 (B) Medium / Long Questions. (With Internal Option)	08	

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Paper Code: CECS511		Total Credit : 4 Total Marks : 70 Time : 3 Hrs
Title of Paper: E-Commerce and M-Commerce		
Unit		
Unit	Description	Weighting
I	E-Commerce Introduction -The e-commerce environment - The e-commerce marketplace -Focus on portals, Location of trading in the marketplace - Commercial arrangement for transactions - Focus on auctions - Business models for e-commerce - Revenue models - Focus on internet start-up companies – the dot-com - E-commerce versus E-business.	20%
II	M-Commerce Introduction – Infrastructure Of M- Commerce – Types Of Mobile Commerce Services – Technologies Of Wireless Business – Benefits And Limitations, Support, Mobile Marketing & Advertisement, Non-Internet Applications In M- Commerce –Wireless/Wired Commerce Comparisons	20%
III	M-Commerce – Technology A Framework For The Study Of Mobile Commerce NTT Docomo’s I- Mode Wireless Devices For Mobile Commerce Towards A Classification Framework For Mobile Location Based Services Wireless Personal And Local Area Networks The Impact Of Technology Advances On Strategy Formulation In Mobile Communications Networks	20%
IV	M-Commerce – Theory and Application The Ecology Of Mobile Commerce The Wireless Application Protocol Mobile Business Services Mobile Portal Factors Influencing The Adoption Of Mobile Gaming Services Mobile Data Technologies And Small Business Adoption And Diffusion M-Commerce In The Automotive Industry Location- Based Services: Criteria For Adoption And Solution Deployment The Role Of Mobile Advertising In Building A Brand M- Commerce Business Models	20%
V	Business to business M-Commerce Enterprise Enablement Email And Messaging Field Force Automation (Insurance, Real Estate, Maintenance, Healthcare) Field Sales Support (Content Access, Inventory) Asset Tracking And Maintenance/Management Remote IT Support Customer Retention (B2C Services, Financial, Special Deals) Warehouse Automation Security	20%
Basic Text & Reference Books :-		
1.	Dave Chaffey, “E-Business and E-Commerce Management”, Third Edition, 2009, Pearson Education	
2.	Brian E. Mennecke, Troy J. Strader, “Mobile Commerce: Technology, Theory and Applications”, Idea Group Inc., IRM press, 2003.	
3.	Paul May, “Mobile Commerce: Opportunities, Applications, and Technologies of Wireless Business” Cambridge University Press March 2001	
4.	Dr.Pandey , Saurabh Shukla E-commerce and Mobile commerce Technologies , Sultan chand ,2011	

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Paper Code: CECS511		Total Credit : 4	
Title of Paper: E-Commerce and M-Commerce		Total Marks : 70	
		Time : 3 Hrs	
Unit			
Description		Total Marks	
I	Q.1 (A) Answer the Following. (Definitions, Blanks, Full Forms, True/False, Match the Following)	06	14
	Q.1 (B) Medium / Long Questions. (With Internal Option)	08	
II	Q.2 (A) Answer the Following. (Definitions, Blanks, Full Forms, True/False, Match the Following)	06	14
	Q.2 (B) Medium / Long Questions. (With Internal Option)	08	
III	Q.3 (A) Short / Medium Questions (With Internal Option)	06	14
	Q.3 (B) Medium / Long Questions. (With Internal Option)	08	
IV	Q.4 (A) Short / Medium Questions (With Internal Option)	06	14
	Q.4 (B) Medium / Long Questions. (With Internal Option)	08	
V	Q.5 (A) Short / Medium Questions (With Internal Option)	06	14
	Q.5 (B) Medium / Long Questions. (With Internal Option)	08	