



ವಿಶ್ವೇಶ್ವರಯ್ಯ ತಾಂತ್ರಿಕ ವಿಶ್ವವಿದ್ಯಾಲಯ

"ವಿಜ್ಞಾನ ಅಭಿವೃದ್ಧಿಯನ್ನು ಉತ್ತರಿಸಲು, ಕರ್ನಾಟಕ ಸರ್ಕಾರದಿಂದ ಸ್ಥಾಪಿತವಾದ ಉನ್ನತ ತಾಂತ್ರಿಕ ವಿಶ್ವವಿದ್ಯಾಲಯ
"ಜ್ಞಾನ ಸಂಗಮ", ಬೆಳಗಾವಿ-೫೯೦೦೧೮, ಕರ್ನಾಟಕ, ಭಾರತ

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Ref: VTU/BGM/BOS/A9/2021-22 6456

Date: 24 MAR 2022

CIRCULAR

Subject: Correction in the title of the text book regarding
Reference: Chairperson's email dated 05.03.2022

This is with reference to the course 20MCA12- Operation System with UNIX the text book title at serial no. 02 is printed as

Abraham Silberschatz, Peter Baer Galvin, Greg Gagne: Operating Systems Principles, 8th Edition, Wiley - India

The title is supposed to be

Abraham Silberschatz, Peter Baer Galvin, Greg Gagne: Operating Systems Concept, 8th Edition, Wiley - India

The syllabus copy with correction in the title of the textbook is attached with this circular for reference.

The Principals of all Engineering Colleges under the ambit of the University are hereby informed to bring the content of the circular to the notice of all concerned.

Sd/-

REGISTRAR

To,

1. The Principals of all Affiliated/Constituent /Autonomous Engineering Colleges and all Schools of Architecture under the ambit of VTU Belagavi.

Copy to.

- The Hon'ble Vice-Chancellor through the secretary to VC, VTU Belagavi for information
- The Registrar (Evaluation), VTU Belagavi for information.
- The Regional Directors (I/c) of all the regional offices of VTU for circulation.
- The Director SMU ITI CNC VTU Belagavi for uploading on VTU website


REGISTRAR

Operating System with UNIX			
Semester: I	I	CIE Marks:	40
Course Code:	20MCA12	SEE Marks:	60
Contact Periods (L:T:P):	4-0-0	Exam Hours:	3
Course Outcomes:			
<ol style="list-style-type: none"> 1. CO1: Analyse the basic Operating System Structure and concept of Process Management 2. CO2: Analyse the given Synchronization/ Deadlock problem to solve and arrive at valid conclusions. 3. CO3: Analyse OS management techniques and identify the possible modifications for the given problem context. 4. CO4: Demonstrate the working of basic commands of Unix environment including file processing 5. CO5: : Demonstrate the usage of different shell commands, variable and AWK filtering to the given problem 			
Module-1			
<p>Introduction to Operating Systems, Computer System Architecture; Operating System Operations; ; Operating System Structure: Operating System Services; System Calls; Types of System Calls; System Programs;; Virtual Machines; System boot.</p> <p>Process Management Process Scheduling: Basic Concepts, Scheduling Criteria, Scheduling Algorithms, Multiple Processor Scheduling. Process Synchronization</p>			
Module-2			
<p>Deadlocks: System model; Deadlock Characterization, Methods for handling deadlocks; Deadlock Prevention; Deadlock Avoidance; Deadlock Detection and Recovery from deadlock. Memory Management: Memory Management Strategies: Background, Swapping; Contiguous Memory Allocation; Paging; Segmentation; Virtual Memory Management; Demand Paging; Page Replacement; Allocation of Frames; Thrashing.</p>			
Module-3			
<p>The File System: The File, What's in a File name? The Parent-Child Relationship, The HOME Variable: The Home Directory, pwd, cd, mkdir, rmdir, Absolute Pathnames, Relative Pathnames, The Unix File System. The vi Editor: vi Basics, Input Mode, ex Mode and Command Mode.</p> <p>Basic File Attributes: ls options, File Ownership, File Permissions, chmod, Directory Permissions, Changing the File Ownership More File Attributes: File Systems and Inodes, Hard Links, Symbolic Links, The Directory, umask, Modification and Access Times, find. The Shell: The Shell's Interpretive Cycle, Shell Offerings, Pattern Matching-The Wild-cards, Escaping and Quoting, Redirection: The Three Standard Files, Two Special Files: /dev/null and /dev/tty, pipes, tee: Creating a Tee, Command Substitution.</p>			
Module-4			
<p>The Process: Process Basics, ps: Process Status, System Processes, Mechanism of Process Creation, Internal and External Commands, Running Jobs in Background, Killing Processes with Signals, Job Control, at and batch, cron.</p> <p>Essential Shell Programming: Shell Variables, Environment Variables, Shell Scripts, read, Using</p>			

Command Line Arguments, exit and exit status of command, The Logical Operators, The if Conditional, using test and [] to Evaluate Expression, The case Conditional, expr, while: looping, for: looping with a list, set and shift, trap, Debugging Shell Scripts with set - x.

Module-5

AWK and Advanced Shell Programming

Simple AWK Filtering, Splitting a Line into Fields, printf, the Logical and Relational Operators, Number Processing, Variables, The -f option, BEGIN and END positional Parameters, getline, Built-invariables, Arrays, Functions, Interface with the Shell, Control Flow. The sh command, export Command, Conditional Parameter Substitution, Merging Streams, Shell Functions, eval, Exec Statement and Examples

Question Paper Pattern:

- The Question paper will have TEN questions
- Each full question will be for 20 marks
- There will be 02 full questions (with maximum of four sub questions) from each module.
- Each full question will have sub questions covering all the topics under a module.
- The students will have to answer FIVE full questions, selecting one full question from each module.

Text books

1. Sumitabha Das: UNIX Concepts and Applications, 4th Edition, Tata McGraw Hill, 2006.
2. Abraham Silberschatz, Peter Baer Galvin, Greg Gagne: Operating Systems **Concept**, 8th Edition, Wiley - India.

References

1. UNIX: The Complete Reference: Kenneth Roson et al, Osborne/McGraw Hill, 2000.
2. Using UNIX: Steve Montsugu, 2ndEdition, Prentice Hall India, 1999.
3. UNIX and Shell Programming: M G Venkateshmurthy, Pearson Education Asia, 2005
4. Behrouz A Forouzan and Richard F Gilberg
5. 4.D M Dhamdhere: Operating Systems - A Concept Based Approach, 2nd Edition, Tata McGraw - Hill, 2002.
6. P C P Bhatt: Operating Systems, 2ndEdition, PHI, 2006.
7. 6. Harvey M Deital: Operating Systems, 3rdEdition, Addison Wesley, 1990.

Regarding a small updation in the text book title , BoS chairman, VTU, MCA

1 message

Arunkumar B R <arunkumarbr@bmsit.in>
To: Sadashiv Halbhavi <sbhvtuso@gmail.com>
Cc: "Venkatesha M. K." <mkvenkatesha@gmail.com>

Sat, Mar 5, 2022 at 10:51 AM

Respected sir
good morning

With reference to the course 20MCA12, Operating System with UNIX,
Text Book 2. the title is supposed to be

(a) Abraham Silberschatz, Peter Baer Galvin, Greg Gagne: Operating Systems Concepts, 8th Edition, Wiley – India.
but it is printed in the syllabus as

(b) Abraham Silberschatz, Peter Baer Galvin, Greg Gagne: Operating Systems Principles, 8th Edition, Wiley – India.

Please add the correct title of the textbook as mentioned in (a) .
Thanking you sir

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with regards

Dr.Arunkumar B.R.

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Chairman BoS, VTU MCA programme, 2019-2022

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Vision

To develop technical professionals acquainted with recent trends and technologies of computer science to serve as valuable resource for the nation/society.

Mission

Facilitating and exposing the students to various learning opportunities through dedicated academic teaching, guidance and monitoring.



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