



SHREYARTH UNIVERSITY

School of Computer Science and Applications
 Programme:iMSc.(CA&IT)/BCA, Semester-V
 Mid Semester Examination September 2025

Course Code:			Course Name:	Software Engineering	
Date:	08/09/2025	Day:	Monday	Time:	02:00 p.m. to 03:15 p.m.

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary by giving proper justification.
3. Figures to the right indicate full marks.
4. Use of a simple calculator is permitted/not permitted.

Q. 1 A Answer the following questions (one mark for each):

[05] COs

- (1) What is portability in software? CO-1
- (2) What is the purpose of documentation? CO-1
- (3) Give one example of embedded software. CO-2
- (4) List Software Process Models. CO-2
- (5) Who proposed the Waterfall Model?
A) Barry Boehm B) Royce C) Pressman D) Sommerville CO-2

B Differentiate between Program and Software.

[05] CO-1

Q. 2 Attempt any two questions from following (each carries five marks):

[10]

- (1) Define software. Explain any three main components of software with examples. CO-1
- (2) "Software doesn't wear out." – Justify this statement with examples. CO-1
- (3) Explain the types of software with suitable examples. CO-1
- (4) Explain the Incremental Process Model in detail with diagrams, advantages, and disadvantages. CO-2

Q. 3 Attempt any two questions from following (each carries five marks):

[10]

- (1) Explain Software Development Life Cycle (SDLC) in detail. CO-2
- (2) Explain the different phases of the Software Development Process. CO-2
- (3) Explain the phases of the Waterfall Model in detail. CO-2
- (4) Explain the Spiral Model with a neat diagram. State when to use it, and list its advantages and disadvantages. CO-2

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School of Computer Science and Applications

Programme: BCA, Semester-V

Mid Semester Examination September 2025

Course Code:			Course Name:	Linux Shell Scripting	
Date:	05/09/2025	Day:	Friday	Time:	02:00 p.m. to 03:15 p.m.
Total Marks: 30					

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary by giving proper justification.
3. Figures to the right indicate full marks.
4. Use of simple calculator is permitted/not permitted.

Q. 1 A Answer the following questions (one mark for each):

[05] COs

- (1) Write the command to display the present working directory. CO-1
- (2) Which command is used to count the number of lines, words, and characters in a file? CO-1
- (3) What does \$0 represent in a shell script? CO-2
- (4) Write the syntax of an if...else statement in shell scripting. CO-2
- (5) Name any two looping statements in shell scripting. CO-2

B Explain any five features of UNIX operating system.

[05] CO-1

Q. 2 Attempt any two questions from following (each carries five marks):

[10]

- (1) Differentiate between absolute and relative pathnames with suitable examples. CO-1
- (2) Explain different looping statements (for, while, until) in shell scripting with syntax and one example each. CO-1
- (3) Write the command and output for the following tasks: CO-2

Display today's date

Show current working directory

List all files including hidden files

Display only first 10 lines of a file

Count the number of words in a file

CO-1

Q.3 Attempt any two questions from following (each carries five marks):

[10]

- (1) Write a shell script to check whether a given number is even or odd
- (2) Write short notes on the following commands with examples:
(a) cp (b) mv (c) rm (d) mkdir (e) rmdir
- (3) Write a shell script to find the factorial of a given number using a loop

CO-2

CO-1

CO-2

***** End of Question Paper *****

Enrollment No: _____



SHREYARTH UNIVERSITY

School of Computer Science and Applications

Programme: BCA/IMSC, Semester-V

Mid Semester Examination September 2025

Course Code:			Course Name:	Data Communication and Networking	
Date:	03/09/2025	Day:	Wednesday	Time:	02:00 p.m. to 03:15 p.m.
					Total Marks: 30

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary by giving proper justification.
3. Figures to the right indicate full marks.
4. Use of a simple calculator is not permitted.

Q. 1 A Answer the following questions (one mark for each): [05] COs

- (1) List out the types of area networks. **CO-1**
- (2) Which network topology uses a token passing method? **CO-1**
- (3) Name all the components of a data communication. **CO-1**
- (4) State True/False: "Repeater is a regenerator". **CO-2**
- (5) Radio waves follow which type of propagation? **CO-2**

B Explain the classification of line configuration in detail. [05] CO-1

Q. 2 Attempt any two questions from following (each carries five marks): [10]

- (1) State different types of topology and Explain any two in detail. **CO-1**
- (2) Define Transmission media with its classification. **CO-2**
- (3) Explain Unshielded Twisted pair cable in detail with diagram and list its all connectors. **CO-2**

Q. 3 Attempt any two questions from following (each carries five marks): [10]

- (1) Explain Infrared waves and list out the application. **CO-2**
- (2) Define Data Flow mode and explain each type of data flow mode. **CO-1**
- (3) Explain Coaxial cable in detail with a diagram. **CO-2**



SHREYARTH UNIVERSITY

School of Computer Science and Applications

Programme: IMSC/BCA, Semester-V

Mid Semester Examination September 2025

Course Code:	--	Course Name:	Advanced Java	
Date:	02/09/2025	Day:	Tuesday	Time: 02:00 p.m. to 03:15 p.m. Total Marks: 30

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary by giving proper justification.
3. Figures to the right indicate full marks.
4. Use of a simple calculator is permitted/not permitted.

Q. 1 A Answer the following questions (one mark for each): [05] COs

- (1) Write a full form of HTTPS. CO-1
- (2) Write a full form of API. CO-1
- (3) Define Statement. CO-1
- (4) What is HTTP Session? CO-2
- (5) Write a method of Servlet life cycle. CO-2

B What is JDBC? Explain all JDBC Components. [05] CO-1

Q. 2 Attempt any two questions from following (each carries five marks): [10]

- (1) Write a difference between HTTP vs HTTPS. CO-1
- (2) Explain Web Architecture. CO-1
- (3) Explain collection. CO-1

Q. 3 Attempt any two questions from following (each carries five marks): [10]

- (1) Define session management. CO-2
- (2) Explain Servlet lifecycle. CO-2
- (3) Write a practical of ArrayList and HashSet CO-1