

Exam Code: 105705
(20)

Paper Code: 5207

Programme: Bachelor of Science (Information Technology)
Semester-V

Course Title: Computer Networks

Course Code: BITL-5111

Time Allowed: 3 Hours

Max Marks: 80

Note: Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section. All question carries equal 16 marks.

Section A

1. What do you mean by Computer Networks? What is guided and unguided media? Explain the Coaxial Cable. (10)
(b) Discuss different types of networks. (6)
2. Explain TCP/IP Model and Compare TCP/IP with OSI Model. (16)

Section B

3. (a) What are Analog and Digital signals? Explain how to convert Analog signals to Digital signals using the PCM technique. (8)
- (b) Explain Packet switching. (8)
4. What are Error Detection and Correction? How to Detect single-bit data Error in Networks. (16)

Section C

5. How Token Ring works.
(b) Explain The Dijkstra Algorithm. (2x8)
6. Differentiate IPV4 and IPV6 and explain in detail the header format of IPV6 (16)

Section D

7. What is Cryptography? Explain different Keys used in cryptography. (16)
8. What are the various services provided by UDP? How User Datagram Protocol works to send the data? (16)

Exam Code: 105705
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Paper Code: 5208

**Programme: Bachelor of Science
(Information Technology)
Semester-V**

Course Title: Web Technologies

Course Code: BITL-5112

Time Allowed: 3 Hours

Max Marks: 80

Note: Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section. Each question carries equal marks (16).

Section A

1. (a) What is JavaScript? Explain how JavaScript Objects are created?
(b) Explain Control Statements in JavaScript (2x8)
2. (a) What is BOM? How it is different from DOM?
(b) Explain Window Screen and Navigation in BOM. (2x8)

Section B

3. Explain the following: -
 - a) Form Handling
 - b) Inheritance (2x8)

4. (a) How to upload a file in PHP?
(b) How My SQL Database is accessed in PHP?

(2x8)

Section C

5. (a) Explain Basic Structure OF XML with example.
(b) Explain Parsing in XML.
6. (a) Explain REST in detail.
(b) How responses are fetched from Server in AJAX.

(2x8)

(2x8)

Section D

7. (a) Explain MVC Framework.
(b) Explain Blade Templating in detail with example
8. Explain Form Handling and discuss how Validation is done in Laravel.

(2x8)

(16)

Exam Code: 105705

Paper Code: 5209

**Programme: Bachelor of Science (Information
Technology) Semester-V**

Course Title: Operating System

Course Code: BITL-5113

Time Allowed: 3 Hours

Max Marks: 80

Note: Attempt five questions in all, selecting atleast one question from each section. Fifth question may be attempted from any section. Each question carries 16 marks.

SECTION-A

1. Define the terms in detail: Multiprocessing, Multiprogramming, Multitasking, Time Sharing.
2. Define the terms in detail: Distributed system, Real time system, Threads, system calls.

SECTION-B

3. What is CPU scheduling? Explain any two algorithms of cpu scheduling in detail with examples.
4. What do you mean by critical section Problem? Which algorithm is best to avoid jumping of processes in critical section? Explain any one in detail.

SECTION-C

5. Explain in detail
(a) Dead lock Prevention (b) Dead lock avoidance
6. Differentiate between Paging and Segmentation in detail? Explain with diagrams.

SECTION-D

7. What do you mean by page fault? Also explain demand paging in detail.
8. Explain
(a) Thrashing (b) Disk Scheduling

Paper Code: 5210
(20)

Exam Code: 105705
Programme: Bachelor of Science (Information Technology)
Semester-V
Course Code: BITL-5116/

Exam Code: 107205
Programme: Bachelor of Computer Application Semester-V
Course Code: BCAL-5117

Course Title: Data Mining and Data Warehousing

Time 3 Hours

Max Marks: 60

Note: Attempt any five questions selecting at least one question from each section, fifth question may be attempted from any section. All questions carry equal marks (12).

SECTION A

1. What is Data Mining? Explain Data Mining Process.
(12)
2. Explain the Applications and Trends in Data Mining.
(12)

SECTION B

3. What do you know about Data Mining Techniques? (12)
4. Explain distance-based algorithms. (12)

SECTION C

5. Explain the Need and Evolution of Data Warehousing. (12)
6. Explain Data Warehouse Architecture. (12)

SECTION D

7. Compare and contrast Host based, Single stage, LAN based Data Warehouse. (12)
8. What are the most efficient tools used for implementation of Data Warehouses? (12)