

1. In the client-server model of network programming, which process is responsible for taking the initiative to start communication?

- A. Server
- B. Client
- C. Daemon
- D. Winsock DLL

Correct Answer: B

2. According to the syllabus, what is the process called that waits for communication to be initiated?

- A. Client
- B. Fork
- C. Server
- D. Protocol

Correct Answer: C

3. Which of these is NOT listed as a communication protocol in the fundamentals section?

- A. SCTP
- B. UDP
- C. HTTP
- D. TCP

Correct Answer: C

4. What tool is used to represent the various states of a TCP connection?

- A. Syslogd
- B. TCP state transition diagram
- C. Byte manipulation function
- D. Winsock architecture

Correct Answer: B

5. One of the core objectives of the course is to implement systems that communicate across different platforms without depending on:

- A. The number of clients
- B. Operating system architecture
- C. Programming language
- D. Physical hardware

Correct Answer: B

6. Which of the following is a fundamental I/O model mentioned in the UNIX programming section?

- A. Synchronous Blocking
- B. Signal driven
- C. Parallel Processing
- D. Multi-threaded

Correct Answer: B

7. In UNIX socket programming, which function is used to create a new process?

- A. exec
- B. fcntl

C. fork

D. socket (Wait, the syllabus says "Fork and exec functions")

Correct Answer: C

8. Which function is specifically used to replace the current process image with a new one?

A. fork

B. exec

C. ioctl

D. setsockopt

Correct Answer: B

9. What type of arguments are used to return the length of a socket address structure from the kernel to the process?

A. Global variables

B. Byte ordering functions

C. Values Result arguments

D. Asynchronous database functions

Correct Answer: C

10. To handle multiple clients simultaneously, what type of server is discussed in the UNIX programming section?

A. Sequential Servers

B. Iterative Servers

C. Concurrent Servers

D. Blocking Servers

Correct Answer: C

11. Which function is used to retrieve socket options?

A. setsockopt

B. ioctl

C. getsockopt

D. syslog

Correct Answer: C

12. Which function is used to modify the properties of a socket or file descriptor, such as setting it to non-blocking?

A. fcntl

B. fork

C. exec

D. ping

Correct Answer: A

13. What is the name of the system daemon used for system logging?

A. Telnet

B. Syslogd

C. ifconfig

D. Winsock DLL

Correct Answer: B

14. Which function is used to send a message to the system logger?

- A. ioctl
- B. syslog
- C. setsockopt
- D. getsockopt

Correct Answer: B

15. What type of domain sockets are implemented in both UNIX and Internet contexts?

- A. Physical domain
- B. Logic domain
- C. Socket Domain
- D. Protocol domain

Correct Answer: C

16. Which operation is used for device-specific input/output control?

- A. ioctl
- B. fcntl
- C. select
- D. recvfrom

Correct Answer: A

17. In terms of byte ordering, network programming must handle the conversion between host order and:

- A. System order
- B. Byte manipulation functions
- C. Network byte order
- D. Winsock order

Correct Answer: C

18. Which I/O model involves the kernel notifying the process when an operation is complete without blocking the process?

- A. Blocking
- B. Non-blocking
- C. Multiplexing
- D. Asynchronous

Correct Answer: D

19. Which UNIX mechanism allows a process to send a file descriptor to another process?

- A. Forking
- B. Passing file descriptor
- C. Winsock DLL
- D. Telnet

Correct Answer: B

20. Which function is used to monitor multiple file descriptors to see if they are ready for I/O?

- A. accept
- B. select
- C. fork

D. connect

Correct Answer: B

21. What does the "Setup and Cleanup" function refer to in the syllabus?

- A. TCP state transitions
- B. Winsock initialization and termination
- C. UNIX fork operations
- D. Telnet login routines

Correct Answer: B

22. In Winsock programming, which function is used to handle asynchronous data retrieval from a network database?

- A. Asynchronous Database function
- B. ioctl function
- C. syslog function
- D. exec function

Correct Answer: A

23. Which library is essential for the Winsock architecture?

- A. Libc
- B. Winsock DLL
- C. Netstat
- D. Syslogd

Correct Answer: B

24. Which utility is used to check the configuration of network interfaces in a LINUX environment?

- A. ipconfig
- B. ifconfig
- C. ping
- D. Netsat

Correct Answer: B

25. Which utility is used to check the reachability of a host on an IP network?

- A. TFTP
- B. Telnet
- C. ping
- D. ifconfig

Correct Answer: C

26. Which utility displays network connections, routing tables, and interface statistics?

- A. Netstat (Netsat)
- B. ifconfig
- C. ping
- D. syslog

Correct Answer: A

27. What does TFTP stand for in the context of network utilities?

- A. Total File Transfer Protocol

- B. Technical File Transfer Protocol
- C. Trivial File Transfer Protocol
- D. Tele-Frequency Transfer Protocol

Correct Answer: C

28. Which utility is used for Remote Login?

- A. Telnet
- B. ipconfig
- C. Syslogd
- D. getsockopt

Correct Answer: A

29. In Winsock, which function is used to initiate a connection on a non-blocking socket?

- A. select with recv
- B. Non-Blocking with connect
- C. fcntl
- D. fork

Correct Answer: B

30. Which Windows Socket extension is used for managing operations that do not return immediately?

- A. Asynchronous Operation
- B. Byte ordering
- C. TCP state diagram
- D. Socket address structures

Correct Answer: A

31. To send data over a connection-oriented socket (TCP), which function is used?

- A. sendto
- B. send
- C. recvfrom
- D. ioctl

Correct Answer: B

32. To receive data over a connectionless socket (UDP), which function is used?

- A. recv
- B. recvfrom
- C. send
- D. fork

Correct Answer: B

33. Which model is specifically listed under "Windows sockets"?

- A. Non-Blocking I/O
- B. Blocking I/O
- C. Signal driven I/O
- D. Parallel I/O

Correct Answer: B

34. Error Handling Functions in Winsock are used to:

- A. Transition TCP states
 - B. Manage network errors and codes
 - C. Implement concurrent servers
 - D. Configure ifconfig
- Correct Answer: B

35. Which function is used to specify socket options in the UNIX domain?

- A. setsockopt
- B. syslog
- C. ifconfig
- D. fork

Correct Answer: A

36. Multiplexing is an example of what?

- A. A protocol
- B. An I/O model
- C. A network utility
- D. A byte ordering function

Correct Answer: B

37. The "select" function can be used in conjunction with which function to handle incoming connections?

- A. accept
- B. fork
- C. syslog
- D. cleanup

Correct Answer: A

38. According to the syllabus, how many hours are allocated for UNIX Programming?

- A. 6 hrs
- B. 15 hrs
- C. 22 hrs
- D. 2 hrs

Correct Answer: C

39. The Laboratory exercise involves implementing an ECHO server using:

- A. Windows only
- B. C and LINUX
- C. SCTP only
- D. Telnet

Correct Answer: B

40. Which specific function is used for handling blocked I/O in the Winsock section?

- A. Asynchronous Database function
- B. Function for Handling Blocked I/O
- C. Byte manipulation functions
- D. Fork function

Correct Answer: B

41. What is the Windows equivalent of the "ifconfig" utility?

- A. ipconfig
- B. Netstat
- C. ping
- D. TFTP

Correct Answer: A

42. Which communication protocol is listed as an alternative to TCP and UDP?

- A. IPX
- B. SCTP
- C. SPX
- D. NetBEUI

Correct Answer: B

43. Laboratory exercise 6 involves a message exchanger between which two operating systems?

- A. UNIX and Solaris
- B. LINUX and Windows
- C. DOS and Windows
- D. MacOS and LINUX

Correct Answer: B

44. Which section covers the "Winsock DLL"?

- A. Network Programming Fundamentals
- B. UNIX Programming
- C. Winsock Programming
- D. Network Utilities

Correct Answer: C

45. Date and Time Routines are implemented in the lab using which language?

- A. C++
- B. Java
- C. C
- D. Python

Correct Answer: C

46. What type of architecture is Winsock based on?

- A. Peer-to-peer architecture
- B. Winsock architecture
- C. Monolithic architecture
- D. Mainframe architecture

Correct Answer: B

47. In the context of UNIX programming, what does "Value Result" refer to?

- A. Socket address structures
- B. The return value of fork()
- C. The status of a ping command
- D. The version of Winsock

Correct Answer: A

48. Which function is used to send data over a connectionless (UDP) socket?

- A. send
- B. sendto
- C. recv
- D. select

Correct Answer: B

49. What is the total marks for the sessional evaluation including theory and practical?

- A. 30
- B. 20
- C. 50
- D. 100

Correct Answer: C

50. Which of these is a objective of the network programming course?

- A. To design and implement client-server based systems
- B. To study computer hardware manufacturing
- C. To learn graphic design
- D. To repair physical network cables

Correct Answer: A