

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