



K25U 0288

Reg. No. :

Name :

**Sixth Semester B.C.A. Degree (CBCSS – OBE – Regular/Supplementary/
Improvement) Examination, April 2025
(2019 to 2022 Admissions)
Discipline Specific Elective
6B20BCA-E02 : NETWORK PROGRAMMING**

Time : 3 Hours

Max. Marks : 40

**PART – A
(Short Answer)**

Answer all the questions.

(6×1=6)

1. Which protocol is used by the internet applications ping and traceroute ?
2. What is the purpose of gethostbyname ?
3. What is the return value of socket() on success ?
4. What is SO_RCVBUF used for ?
5. What does inet_pton() do ?
6. What is the maximum size of an IPV₄ datagram ?

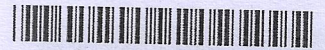
**PART – B
(Short Essay)**

Answer any 6 questions.

(6×2=12)

7. List any two standard internet services provided by TCP/IP.
8. What is the function of getaddrinfo() ?
9. Which function converts numeric IP address to a string ?

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10. Write short notes on socket pair.
11. Explain the purpose of bind() in a server program.
12. What is the difference between graceful termination and abrupt termination of a server ?
13. How does inet_pton() differ from inet_ntoa() ?
14. Why should a TCP server handle SIGCHLD when using fork() ?

PART – C
(Essay)

Answer **any 4** questions.

(4×3=12)

15. Write short notes on well known ports and registered ports.
16. How does SO_KEEPALIVE work ? And what are the configurable parameters ?
17. Write short notes on byte ordering functions.
18. What is SO_ERROR ? And how it can be used for error handling in sockets ?
19. How TCP establish a connection using three way handshake protocol ?
20. What is the difference between a domain name and an IP address ?

PART – D
(Long Essay)

Answer **any 2** questions.

(2×5=10)

21. Explain briefly about socket address structures.
 22. Discuss SO_LINGER in detail with different configurations and their impact.
 23. Explain the different ways a TCP server can terminate.
 24. Describe the working of getaddrinfo().
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