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# K18U 0188

Reg. No. : .....

Name : .....

## VI Semester B.C.A. Degree (CBCSS – Reg./Supple./Imp.) Examination, May 2018 Core Course (Elective) 6B20BCA : E05. NETWORK PROGRAMMING (2014 Admn. Onwards)

Time : 3 Hours

# SECTION - A

1. One word answer :

a) The function setsockopt() return \_\_\_\_\_.

b) fork() system call is used for \_\_\_\_\_.

c) \_\_\_\_\_ default port used in HTTP.

d) DNS stands for \_\_\_\_\_.

e) The function getservbyname() return \_\_\_\_\_.

- f) In UNIX the component that controls the execution of the processes is called \_\_\_\_\_\_.
- g) UDP stands for \_\_\_\_\_
- h) \_\_\_\_\_ return foreign protocol address associated with socket.

#### SECTION - B

Write short notes on any seven of the following questions.

2. Explain error handling in Unix function.

3. What is the use of TIME\_WAIT state in TCP connection ?

4. Explain Fork and exec functions.

5. Explain the fields present in sockaddr\_in structure.

6. Describe briefly TCP Echo Client main function.

7. Explain TCP Connection Termination.

Max. Marks: 40

 $(8 \times .5 = 4)$ 

 $(7 \times 2 = 14)$ 

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- 8. How TCP\_NODELAY option is used while sending small packets ?
- 9. Explain in brief the getsockopt function.
- 10. Write the syntax for getservbyport function.
- 11. What is the use of freeaddrinfo function ?

#### SECTION - C

Answer any four of the following questions.

12. Explain TCP Port numbers.

- 13. Explain Byte ordering functions.
- 14. Explain address conversion functions.
- 15. Describe TCP Echo Client str\_cli function.
- 16. Describe in brief Generic socket options.
- 17. How getaddrinfo function handle IPv6 address ?

SECTION - D

Write an essay on any two of the following questions.

 $(2 \times 5 = 10)$ 

- Explain IPv6 socket address structure and compare it with IPv4 and unix socket address structure.
- 19. Write a TCP Socket program to implement Echo Server/Echo Client.
- 20. Explain the various TCP Socket options in detail.
- Explain get host by name, get host by name2 with resolver option and the structure these two points by their return value.

 $(4 \times 3 = 12)$