

# National Institute of Technology, Delhi

Name of the Examination: B.Tech.

End Semester Examination (Spring, 2020)

Branch : ECE

Semester : 6<sup>th</sup>

Title of the Course : Computer Network

Course Code : CSB 342

Time: 2 Hours

Maximum Marks: 50

Note : Attempt All Questions

## Section A (2\*20 =40 marks)

1. What is a protocol.
2. OSI stands for.....
3. The method of communication in which transmission takes place in both directions, but only in one direction at a time is .....
4. The hamming distance between 001111 and 010011 is.....
5. You need to connect two computers for file sharing. Is it possible to do this without using a hub or a router?
6. What will be following command do: **tracert -d www.google.com**
7. \_\_\_\_\_ is used for finding network information about your local machine like IP addresses, DNS addresses etc
8. A bit stream 1101011011 is transmitted using the standard CRC method. The generator polynomial is  $x^4+x+1$ . What is the actual bit string transmitted?
9. A bit stream 10011101 is transmitted using the standard CRC method. The generator polynomial is  $x^3+1$ .
  1. What is the actual bit string transmitted?
  2. Suppose the third bit from the left is inverted during transmission. How will receiver detect this error?
10. Why Use MAC Address?
11. \_\_\_\_\_ is consisting of a computer network across an entire city, college campus, or a small region.
12. What will be the following command do:
 

```
set testfile [open hello.dat w]
puts $testfile "hello1"
```
13. \_\_\_\_\_ is a program, circuit or a device that converts data from one format to another.
14. How to set a value for variable 'a' in NS2 with expression in it?
15. What is the purpose of a 'tr' file in NS2.
16. How you will determine the IP address of nitd.ac.in. (write the command)
17. 'traceroute [www.nitd.ac.in](http://www.nitd.ac.in)' is used to find out ..... and .....

18. Write any two files that are used in NS2.
19. Bit Stuffing refers to.....
20. The network topology with highest reliability is.....

**Section B (1 \*10 = 10 marks)**

**Answer the following with respect to NS2**

21. The alternative command for set i [expr \$i + 1] is .....
22. expr { "9" == "9.00 " } results in .....
23. expr { "9" eq "9.00" } results in .....
24. for {set i 0} {\$i < 10} {incr i} {  
     set \$a(\$i) \$i  
   }
25. .... represents an comment
26. .... is used to represent an inline comment.
27. Nam stands for .....
28. What will the following command results in :
  - a. \$ns at 3.0 "finish "
  - b. \$ ns duplex-link-op \$n0 \$n1 orient right-up
  - c. set x0 [ new Agent/UDP]