



BRAINWARE UNIVERSITY

Course – BSc. (HN)

Advanced Networks (BHN301)

(Semester – 3)

Time allotted: 3 Hours

Full Marks: 70

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group –A

(Multiple Choice Type Questions)

10 x 1 = 10

1. *Choose the correct alternative from the following*

(i) Data framing happens at which layer of the OSI Model?

- | | |
|-------------|--------------|
| a. Physical | b. Data Link |
| c. Network | d. Transport |

(ii) Router works at _____ layer.

- | | |
|--------------|------------------|
| a. Data Link | b. Network |
| c. Transport | d. None of these |

(iii) Which of the following functions does a router use to relay data packets between networks?

- | | |
|----------------------------|-------------------------------------|
| a. Application and Media | b. Path determination and Switching |
| c. Broadcast and Collision | d. None of these |

Domain

(iv) When all the routers in a network are operating with the same knowledge, the network is said to have done which of the following?

- | | |
|-----------------|------------------|
| a. Converged | b. Formalized |
| c. Reconfigured | d. None of these |

Group – C

(Long Answer Type Questions)
(Answer any *three* from the following)

3 x 15 = 45

7. (a) What is 'APIPA'?
- (b) Write down the range of Private and Public IP address for Class A, B, C.
- (c) Write short note on IPv6. [5+5+5]
8. (a) Discuss the advantages of Spanning Tree Protocol (STP). [5]
- (b) How do the OSPF decides the best route? [10]
9. Explain the process of taking backup of IOS from flash memory to TFTP server in a router and restoring the IOS from TFTP server to flash memory. [15]
10. (a) Explain the functions of Session Layer of OSI Reference Model. [5]
- (b) Discuss the encapsulation process (Step by Step). [10]
11. (a) Discuss the different networking topologies. [5]
- (b) What is 'Circuit Switching'? [5]
- (c) Define – Protocol Data Unit (PDU). [5]