

Roll No. ....

Total No. of Questions : 10]  
(2040)

[Total No. of Printed Pages : 4

**B.C.A. (CBCS) RUSA VIth Semester  
Examination**

**3838**

**COMPUTER NETWORKS**

Paper : BCA-0601

**Time : 3 Hours]**

**[Maximum Marks : 70**

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**Note :-** Attempt all questions from Part-A and *one* question each from Parts-B, C, D and E.

**Part-A**

1. (i) WAN is .....
- (ii) What is ISP ?
- (iii) What are full duplex links ?
- (iv) Give an example of even parity ?
- (v) Give an instance of burst error.
- (vi) DSL is .....

(vii) Give difference between active hub and passive hub.

(viii) Give address range of Class B IP addresses.

(ix) What is physical address of a machine ?

(x) SMTP is ..... .  $1 \times 10 = 10$

2. (i) Explain the working of a bridge.

(ii) What is a star topology ? Give disadvantages of star topology.

(iii) What is a coaxial cable ? Give diagrammatic representation.

(iv) What do you understand by Sub-netting ? Give an example.

(v) How to detect burst error using parity check ?  
Give an example.  $4 \times 5 = 20$

### **Part-B**

$10 \times 1 = 10$

3. Discuss peer-to-peer, server-based and client-server networks with the help of suitable examples.

4. Discuss various network hardware components required to set up a network.

**Part-C**

10×1=10

5. Discuss Hamming distance code for correcting error.  
Show the working of Hamming distance code with the help of an example.
6. (a) Discuss the structure and types of Fiber optics cable.
- (b) How light is transmitted through the fiber?

**Part-D**

10×1=10

7. Give the diagrammatic representation of OSI reference model. Discuss the tasks performed by each layer in the reference model.
8. (a) Discuss the operation and characteristics of Ethernet.
- (b) Discuss the frame format of Ethernet.

**Part-E**

10×1=10

9. Discuss Classful and Classless addressing with the help of suitable example(s).
10. Explain TCP segment format in detail with the help of suitable diagrammatic representation.