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Reg. No. : .....

Name : .....

Third Semester B.C.A. Degree Examination, January 2019
Career Related FDP under CBCSS
Group 2(b) : COMPUTER APPLICATIONS
Core Course
CP1341 : Computer Networks
(2014 Admission Onwards)

Time : 3 Hours Max. Marks : 80

SECTION – A
(Very Short Answer Type)

One word to maximum of **one** sentence. Answer **all** questions. **Each** question carries **one** mark. **(10×1=10 Marks)**

1. Explain pure ALOHA.
2. What is ARQ ?
3. CSMA stands for.
4. What is Simplex transmission mode ?
5. What is bandwidth ?
6. What is Full Duplex transmission mode ?
7. Define flow control.
8. What is the use of Switch ?
9. What is datagram ?
10. Write the use of SMTP.

SECTION – B
(Short Answer Type)

Not to exceed **one** paragraph. Answer **any eight** questions. **Each** question carries **two** marks. **(8×2=16 Marks)**

11. Which are the key characteristics of optical fiber cable ?

P.T.C

12. Which are key elements of communication model ?
13. Explain Radio Waves.
14. Explain Bridge.
15. Write short notes on CRC.
16. Explain bit oriented framing.
17. Explain UDP segment header.
18. Why do you need error detection ?
19. Explain Simplest Protocol for Noiseless Channel.
20. Describe Ethernet.
21. Explain about DNS.
22. Define Piggybacking.

SECTION – C
(Short Essay)

Not to exceed **120** words. Answer **any six** questions. **Each** question carries **four** marks. **(6×4=24 Marks)**

23. Explain about network hardware in detail.
24. Explain different Transmission modes in detail.
25. Explain sliding window protocols.
26. Differentiate between switch and router.
27. Write a note on file transfer protocol.
28. Explain leaky bucket algorithm.
29. Explain IP in detail.
30. Explain TCP header in detail.
31. How performance is improved in CSMA/CD protocol compared to CSMA protocol ?

SECTION – D
(Short Essay)

Answer **any two** questions. **Each** question carries **15** marks. **(2×15=30 Marks)**

32. Explain computer networks. What are the advantages and disadvantages of computer network ?
33. Explain ISO-OSI reference model in detail.
34. Discuss open loop and closed loop congestion control.
35. Explain the different transmission mediums used in networks with suitable examples.

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Third Semester B.C.A. Degree Examination, October 2019

Career Related FDP Under CBCSS

Group 2(b) – Computer Applications

Core Course

CP 1341 – COMPUTER NETWORKS AND SECURITY

(2018 Admission)

Time : 3 Hours

Max. Marks : 80

SECTION A

Answer **all** questions in **one** or **two** sentences.

1. Name the five basic network topologies.
2. What are the units of frequency?
3. How does bit rate differ from baud rate?
4. What is UDP?
5. Define Full duplex.
6. Define analog transmission.
7. What is the spectrum of a signal?
8. What is the advantage of packet switching'?
9. Define Kerckhoff's principal.
10. What is symmetric key cryptography?

(10 × 1 = 10 marks)

SECTION B

Answer any eight questions, not exceeding a paragraph of **50** words.

11. Identify the five components of a data communication system.
12. Name the advantages of optical fiber over twisted-pair and coaxial cabl
13. Explain the functions of presentation layer in OSI model.
14. Explain stop and wait ARQ.
15. Explain briefly FTP.
16. Define remote login.
17. What is router'?
18. Define computer virus.
19. Define active attacks.
20. What are the Requirement for Public Key Cryptosystem.
21. Explain cryptanalysis.
22. Define hash function.

(8 × 2 = 1(

SECTION C

Answer any **six** questions, in a page of **100** words.

23. Explain consumer protection act.
24. Explain the significance of satellite communications.
25. Distinguish between synchronous and asynchronous transmission.
26. Discuss various error control techniques.

27. Explain about bridge, hub, switch and router.

28. Explain web security

29. Explain substitution ciphers with example.

30. Distinguish between conventional signature and digital signature.

31. Explain multiple DES.

(6 × 4 = 24 marks)

SECTION D

Answer any **two** questions, not exceeding **4** pages.

32. Explain the working digital signature.

33. What are the different types of sliding window protocol? Explain.

34. Explain the concept of client server model with examples.

35. Explain public key cryptography and RSA algorithm.

(2 × 15 = 30 marks)

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Name : .....

Third Semester B.C.A. Degree Examination, October 2019

Career Related FPD Under CBCSS

Group 2(b) – Computer Applications

Core Course

CP 1341 : COMPUTER NETWORKS

(2014 – 2017 Admn)

Time : 3 Hours Max. Marks : 80

SECTION – A (Very Short Answer Type)

One word to maximum of **one** sentence, Answer **all** questions.

1. What is a LAN?
2. What is an even parity?
3. DNS stands for?
4. What is remote login?
5. What is a bridge?
6. What is a frame?
7. What is a baud rate?
8. Define FTP.

P.T.O.

9. What is a PDU?

10. What is a datagram?

SECTION – B (Short Answer Type)

Not to exceed **one** paragraph, answer any **eight** questions. Each question 2 marks.

11. Explain different types of data flow in data communication.

12. What are the network design goals?

13. What is meant by synchronisation?

14. What is a packet? What is its role in a network?

15. What is point to point connection?

16. What is dialog control?

17 What is error detection? Explain any one error detection algorithm.

18. Describe IP protocol.

19. Explain ALOHA protocol.

20. What is message switching?

21. What is token management?

22. What is noiseless channel protocol? Explain.

(8 × 2 = 16 Marks)

SECTION – C (Short Essay)

Not to exceed **120** words, answer any **six** questions. **Each** question carries **4** marks.

23. What are the advantages of fiber optic transmission?

24. Explain collision detection with reference to CSMA.

25. What is a hamming code? What is its use?

26. Explain the working of token ring in a network.

27. Explain process to process delivery mechanism.

28. Explain distance vector routing.

29. What is framing?

30. Explain circuit switching.

31. Explain TCP header of TCP/IP model.

(6 × 4 = 24 Marks)

SECTION – D (Long Essay)

Answer any **two** questions. **Each** question carries **15** marks.

32. Write a detailed note on different types of transmission media in a network.

33. Explain ISO-OSI reference model.

34. Explain different types of topologies of a network?

35. Explain the following :

    (a) Congestion Control

    (b) Error control

(2 × 15 = 30 Marks
