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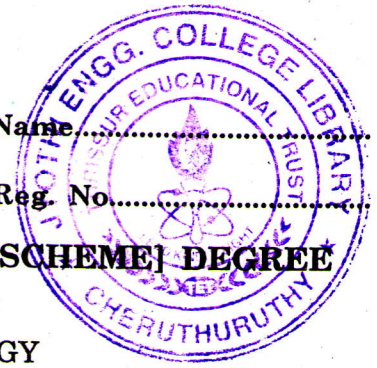
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Name .....

Reg. No. ....

**SEVENTH SEMESTER B.TECH. (ENGINEERING) [09 SCHEME] DEGREE  
EXAMINATION, NOVEMBER 2016**

**CS/PTCS 09 703—INTERNET TECHNOLOGY**



Time : Three Hours

Maximum : 70 Marks

**Part A**

*Answer all questions.  
Each question carries 2 marks.*

1. Define DNS. Mention its usage.
2. What is meant by multimedia networking ?
3. Differentiate between block cipher and stream cipher.
4. What is the difference between message confidentiality and message integrity ?
5. What is meant by B2B ?

(5 × 2 = 10 marks)

**Part B**

*Answer any four questions.  
Each question carries 5 marks.*

6. Explain the working principle of Electronic Mail in the Internet environment.
7. Explain about the Best-Effort IP Service and mention its limitations.
8. Consider an 8-block cipher. How many possible input blocks does this cipher have? How many possible mappings are there ? If we view each mapping as a key, then how many possible keys does this cipher have ?
9. Explain the types of E-Commerce with an example for each.
10. Differentiate the working of TCP and UDP mechanism.
11. Explain the working of Differentiated Services.

(4 × 5 = 20 marks)

**Part C'**

*Answer all questions.  
Each question carries 10 marks.*

12. How is Socket programming done with TCP ? Explain with an example.

Or

13. Explain in detail about the working of FTP.

Turn over

14. Explain about UDP Streaming and HTTP Streaming in multimedia networking.

Or

15. Write about the working principle of the protocols used for real-time interactive applications in multimedia networking.

16. Explain in detail about message integrity and digital signatures.

Or

17. Consider RSA with  $p = 5$  and  $q = 11$ .

(a) What are  $n$  and  $z$  ?

(b) Let  $e$  be 3. Why is this an acceptable choice for  $e$  ?

(c) Find  $d$  such that  $de = 1 \pmod{z}$  and  $d < 160$ .

(d) Encrypt the message  $m = 8$  using the key  $(n, e)$ . Let  $c$  denote the corresponding ciphertext. Show all work.

Hint : To simplify the calculations, use the fact :

$$[(a \pmod{n}) \cdot (b \pmod{n})] \pmod{n} = (a \cdot b) \pmod{n}.$$

18. Explain in detail about the trends in Supply Chain Management.

Or

19. Write in detail about the principle of operations involved in e-procurement and e-distributors.

(4 × 10 = 40 marks)