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**SARDAR PATEL UNIVERSITY**  
**M.Sc. (Information Technology)**  
**Semester – I External Examinations**  
**PS01CINT01: Introduction to Information Science**  
 2<sup>nd</sup> April, 2016

Time: 10:30 AM to 1:30 PM

Max. Marks: 70

Q1. Choose the most appropriate option for each question.

[8]

1. \_\_\_\_\_ is a collection of facts organized in such a way that they have additional value beyond the value of the facts themselves.
  - A) Information
  - B) Data
  - C) Information system
  - D) Programme
2. \_\_\_\_\_ reduces the number of bits sent.
  - A) Data compression
  - B) Authentication
  - C) Data parsing
  - D) None of these
3. E-Business using wireless devices with Internet access is also known as \_\_\_\_\_.
  - A) Internet business
  - B) M-business
  - C) Supply chain management
  - D) None of these
4. A communication protocol used to secure all sensitive data is \_\_\_\_\_.
  - A) Digital certificate
  - B) Electronic wallet
  - C) HTTP
  - D) Secure Socket Layer [SSL]
5. Physical addressing and framing are responsibilities of \_\_\_\_\_.
  - A) Data link layer
  - B) Transport layer
  - C) Session layer
  - D) Application layer
6. FTP uses two TCP connections in which the well-known port \_\_\_\_\_ is used for the control connection.
  - A) 20
  - B) 21
  - C) 80
  - D) None of these
7. In \_\_\_\_\_ type of error two or more bits in the data unit get changed.
  - A) Single-bit
  - B) Burst
  - C) Run-time
  - D) Compile-time
8. In \_\_\_\_\_ communication mode, only one of the two devices on link can transmit; the other can only receive.
  - A) Full Duplex
  - B) Simplex
  - C) Half Duplex
  - D) None of these

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- Q2. Answer the following questions (Any Seven):** [14]
- a. What do you mean by OLTP? Give an example.
  - b. Explain in brief: (i) Authentication and (ii) Digital signature.
  - c. Distinguish between Static Web Page and Dynamic Web page.
  - d. What is an electronic wallet?
  - e. List advantages and disadvantages of Fiber Optics.
  - f. What is the function of MIME?
  - g. Discuss different categories of E-commerce.
  - h. Discuss Decision Support System in brief.
  - i. Distinguish between efficiency and effectiveness.
- Q3. A) Define Information. Explain the Characteristics of Valuable Information.** [6]  
**B) Define TPS. Write a short note on Management Information System.** [6]
- OR**
- B) What is Encryption? Explain Bit Level Encryption method.** [6]
- Q4. A) Explain multistage model of E-Commerce.** [6]  
**B) Write a short note on Supply Chain Management.** [6]
- OR**
- B) Write a short note on Data Compression.** [6]
- Q5. A) Discuss in detail about twisted pair cable.** [6]  
**B) Discuss File Transfer Protocol in detail.** [6]
- OR**
- B) Explain HTTP protocol in detail.** [6]
- Q6. A) Define Bit rate and Bit length.** [6]  
Differentiate between (i) Analog data and Digital data (ii) Analog signal and Digital signal.
- B) Discuss Electronic Payment Systems in detail.** [6]
- OR**
- B) Explain ANY TWO techniques of Analog-to-Analog conversion.** [6]

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