

B.E./B.TECH. Degree Examination, December 2020

Fourth Semester

IT16403-IT ESSENTIALS

(Regulation 2016)

Time: Three hours

Maximum: 80 Marks

Answer **ALL** questions

PART A - (8 X 2 = 16 marks)

1. Picture Definitions are stored in_____
 - a)Cache memory b) ROM c)Frame buffer d)RAM
2. Which of the following stores Subscriber ISDN number-MS ISDN?
 - a) Home Location Register b) Visitor Location Register
 - c)Entity Equipment Register d) None of the above
3. Communication between a computer and a keyboard involves _____ transmission.
 - a) Automatic
 - b) Half-duplex
 - c) Full-duplex
 - d) Simplex
4. Which segment do eBay, Amazon.com belong?
 - a) B2Bs b) B2Cs c) C2Bs d) C2C
5. Write the functions of a Web Server.
6. Compare public key and private key cryptography.
7. Why are protocols needed?
8. Distinguish between Mobile Computing and Wireless Networking.

PART B - (4 X16 = 64 marks)

09. (a) Develop an interactive web page for student registration using HTML form elements. **(16)**

(OR)

- (b) (i) Illustrate the structure of HTTP request message in detail. **(8)**
- (ii) List and explain the steps involved in a web-based client server communication. **(8)**

10. (a) Generate an employee payroll using PHP program and store the information in MySQL database. **(16)**

(OR)

- (b) Construct a web application which asks for user to enter some random string. **(16)**
Use the appropriate string functions to implement the following operation on the input string.
- a) Character count
 - b) Character replacement
 - c) Case conversion
11. (a) (a) Explain the Distance Vector routing algorithm. Analyse its limitations comparing with other routing algorithms. **(16)**

(OR)

- (b) (i) List the requirements in building a computer network. **(8)**
(ii) Analyse the different types of switching networks and mention its advantages and disadvantages. **(8)**
12. (a) (i) Classify the generations of mobile communication technologies. **(8)**
(ii) Apply mobile computing to design online food delivery and monitoring service. Explain the components in detail. **(8)**

(OR)

- (b) Examine in detail about the various types of handover in GSM. Also discuss the timeline diagram of the Intra MSC handover. **(16)**