**QUESTION BANK**

**SUBJECT : IT8201 – Information Technology Essentials**

**SEM/YEAR : II/I**

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**UNIT I - WEB ESSENTIALS**

Creating a Website - Working principle of a Website - Browser fundamentals - Authoring tools - Types of servers: Application Server - Web Server - Database Server

**PART-A**

|  |  |  |  |
| --- | --- | --- | --- |
| **Q.No** | **Questions** | **BT Level** | **Competence** |
| 1 | Define the term Website | BTL -1 | Remember |
|  |  |  |  |
| 2 | Write the classification of Webpages. | BTL -1 | Remember |
|  |  |  |  |
| 3 | List the steps for creating the web sites | BTL -5 | Understand |
|  |  |  |  |
| 4 | Define HTML. | BTL -1 | Remember |
|  |  |  |  |
| 5 | What is the importance of Authoring tools? | BTL -4 | Analyze |
|  |  |  |  |
| 6 | Distinguish server and web server. | BTL -4 | Analyze |
|  |  |  |  |
| 7 | State the functions of IP address | BTL -1 | Remember |
|  |  |  |  |
| 8 | What is URL? | BTL -4 | Analyze |
|  |  |  |  |
| 9 | Outline about web browser. | BTL -2 | Analyze |
|  |  |  |  |
| 10 | List any four browsers. | BTL -1 | Remember |
|  |  |  |  |
| 11 | What is the function of rendering engine? | BTL -3 | Apply |
|  |  |  |  |
| 12 | Define HTTP. | BTL -1 | Remember |
|  |  |  |  |
| 13 | What is GET and POST request? | BTL -3 | Apply |
|  |  |  |  |
| 14 | Examine the basic functionality of a browser. | BTL -3 | Apply |
|  |  |  |  |
| 15 | How to reduce the page loading time? | BTL -6 | Create |
|  |  |  |  |
| 16 | Write about Protocol. | BTL -2 | Understand |
|  |  |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 17 | What are the main components of web browsers? | BTL -2 |  | Evaluate |  |
|  |  |  |  |  |  |
| 18 | Mention some applications of servers | BTL -5 |  | Evaluate |  |
|  |  |  |  |  |  |
| 19 | Why HTTP called stateless Protocol ?Justify | BTL -6 |  | Create |  |
|  |  |  |  |  |  |
| 20 | Outline SMTP Protocol. | BTL -2 |  | Understand |  |
|  |  |  |  |  |  |
|  | **PART-B** |  |  |  |  |
|  |  |  |  |  |  |
| 1 | Describe the procedure to create a website with an example (13) | BTL -1 |  | Remember |  |
|  |  |  |  |  |  |
|  | Explain the following in detail. |  |  |  |  |
| 2 | (i) List terminologies involved in a website(3) | BTL -2 |  | Understand |  |
|  | (ii)Working principle of a Dynamic web page(10) |  |  |  |  |
|  | Discover the following: |  |  |  |  |
| 3 | (i)Difference between URL,domain and website (6) | BTL -3 |  | Apply |  |
| (ii)How to choose the Domain name?(3) |  |  |
|  |  |  |  |  |
|  | (iii)Classify IP Address (4) |  |  |  |  |
|  | (i) Discuss on any four components that are needed to create fully |  |  |  |  |
| 4. | dynamic web page.(6) | BTL -2 |  | Understand |  |
| (ii) Explain the process of developing a web application and hosting |  |  |
|  |  |  |  |  |
|  | on the web server (7) |  |  |  |  |
| 5 | Explain the benefits of using a scripting language in dynamic web | BTL -1 |  | Understand |  |
| pages with some examples (13). |  |  |
|  |  |  |  |  |
|  |  |  |  |  |  |
| 6 | (i)List the types of browser (4). | BTL -1 |  | Remember |  |
| (ii) Describe the architecture of web browser.(9) |  |  |
|  |  |  |  |  |
| 7 | Illustrate the authoring tools for website with an example.(13) | BTL -3 |  | Apply |  |
|  |  |  |  |  |  |
| 8 | (i) Explain web server with an example(6) | BTL -2 |  | Understand |  |
| (ii)Explain in detail about client server architecture(7) |  |  |
|  |  |  |  |  |
|  | Explain the following: |  |  |  |  |
| 9 | (i)Networking (7) | BTL -6 |  | Create |  |
|  | (ii)User Interface (6) |  |  |  |  |
| 10 | Compare some popular web browsers (13) | BTL -4 |  | Analyze |  |
|  |  |  |  |  |  |
| 11 | Summarize the different client programs in detail. (13) | BTL -5 |  | Evaluate |  |
|  |  |  |  |  |  |
|  | Explain the following | BTL -4 |  | Analyze |  |
| 12 | (i)What is the structure of HTTP Response Message? (5) |  |  |  |  |
| (ii)Define Cache control.(4) |  |  |  |  |
|  |  |  |  |  |
|  | (iii)Describe the HyperCard. (4) |  |  |  |  |
| 13 | (i) Define server and Web server (4) | BTL -1 |  | Remember |  |
| (ii) Explain server types in detail (9) |  |  |  |  |
|  |  |  |  |  |
|  | (i)Compare and Contrast application server and database server(7) |  |  |  |  |
| 14 | (ii)Explain the process of client server communication for a web | BTL -4 |  | Analyze |  |
|  | request.(6) |  |  |  |  |
|  | PART-C |  |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 | (i)Discuss about IP addressing (3). | BTL -5 | Evaluate |  |
| (ii) Propose working principle of a static web page(12). |  |
|  |  |  |  |
|  |  |  |  |  |
|  | Explain the following in brief. |  |  |  |
|  | (i)Define Web Compatibility (5) |  |  |  |
| 2 | (ii)Describe search engine (5) | BTL -6 | Create |  |
|  | (iii)Define web Design (2) |  |  |  |
|  | (iv) List some vendors of browsers(3) |  |  |  |
| 3 | Design a 3 tier web application with a neat diagram(15) | BTL -6 | Create |  |
|  |  |  |  |  |
|  | Explain the following: |  |  |  |
|  | (i)Word Processor(3) |  |  |  |
| 4 | (ii) Desktop publishing programming (3) | BTL -5 | Evaluate |  |
| (iii) online webpage builders(3) |  |
|  |  |  |  |
|  | (iv) HTML editors (3) |  |  |  |
|  | (v) Plain text editors(3) |  |  |  |
|  | **UNIT II - SCRIPTING ESSENTIALS** |  |  |  |

Need for Scripting languages - Types of scripting languages - Client side scripting - Server side scripting – PHP - Working principle of PHP - PHP Variables - Constants - Operators – Flow Control and Looping - Arrays - Strings - Functions - File Handling - PHP and MySQL - PHP and HTML - Cookies - Simple PHP scripts

**PART A**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 | Define Scripting Language | BTL -1 | Remember |  |
|  |  |  |  |  |
| 2 | State the reason why moving to script writing method in web | BTL -1 | Remember |  |
| programming |  |
|  |  |  |  |
| 3 | List the types of scripting languages | BTL -1 | Remember |  |
|  |  |  |  |  |
| 4 | Distinguish between Java script and VB script. | BTL -2 | Understand |  |
|  |  |  |  |  |
| 5 | Define client side scripting | BTL -1 | Remember |  |
|  |  |  |  |  |
| 6 | Define server side scripting | BTL -4 | Analyze |  |
|  |  |  |  |  |
| 7 | Assess the general syntax for a function in PHP | BTL -6 | Create |  |
|  |  |  |  |  |
| 8 | What is PHP? Give a suitable example | BTL -1 | Remember |  |
|  |  |  |  |  |
| 9 | What are PHP magic constants? | BTL -2 | Understand |  |
|  |  |  |  |  |
| 10 | Mention the characteristics of PHP | BTL -6 | Create |  |
|  |  |  |  |  |
| 11 | What are common usages of PHP? | BTL -3 | Apply |  |
|  |  |  |  |  |
| 12 | Differentiate Constant and Variable in PHP. | BTL -4 | Analyze |  |
|  |  |  |  |  |
| 13 | Write the output for the following Code. | BTL -3 | Apply |  |
| <?php |  |
|  |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | $count=1; |  |  |  |
|  | Do |  |  |  |
|  | Echo “$count times is 12”.count\*12.”<br>”; |  |  |  |
|  | While(++$count<=3); |  |  |  |
|  | ?> |  |  |  |
| 14 | Illustrate associative array in PHP with an example. | BTL -3 | Apply |  |
|  |  |  |  |  |
| 15 | Distinguish between the uses of echo and print statements with an | BTL -4 | Analyze |  |
| example. |  |
|  |  |  |  |
| 16 | Can you write how to set cookies using PHP? | BTL -2 | Understand |  |
|  |  |  |  |  |
| 17 | Mention the purpose of Global variable. | BTL -5 | Evaluate |  |
|  |  |  |  |  |
|  | Write a MySQL statement to create a table EMPLOYEE with EID as a |  |  |  |
| 18 | primary integer key which is to be incremented whenever a new | BTL -5 | Evaluate |  |
|  | employee is inserted |  |  |  |
| 19 | List steps to create MySQL database using PHP. | BTL -1 | Remember |  |
|  |  |  |  |  |
|  | Write the output of the following code and explain. |  |  |  |
|  | <html> |  |  |  |
|  | <head> |  |  |  |
|  | <title>Checkboxes</title> |  |  |  |
|  | <?PHP |  |  |  |
|  | $ch1=’unchecked’; |  |  |  |
|  | If(isset($\_POST[‘Submit’])) |  |  |  |
|  | { |  |  |  |
|  | If(isset($\_POST[‘ch1’])) |  |  |  |
| 20 | { | BTL -2 | Understand |  |
| $ch1=$\_POST[‘ch1’]; |  |
|  |  |  |  |
|  | If($ch1==’net1’) |  |  |  |
|  | { |  |  |  |
|  | $ch1=’checked’; |  |  |  |
|  | } |  |  |  |
|  | } |  |  |  |
|  | } |  |  |  |
|  | ?> |  |  |  |
|  | </head> |  |  |  |
|  |  |  |  |  |
|  | **PART-B** |  |  |  |
| **1** | (i)Describe the need for scripting languages. (7) | BTL -1 | Remember |  |
| (ii)Explain the types of scripting languages in detail (6) |  |  |
|  |  |  |  |
| **2** | (i)Brief explanation about datatypes of PHP. (7) | BTL -4 | Analyze |  |
| (ii)Describe about Arithmetic operators and its operations. (6) |  |
|  |  |  |  |
| **3** | (i)Write a PHP program to greatest among three numbers. (7) | BTL -3 | Apply |  |
| (ii)Write a PHP script to compute sum and average of N numbers.(6) |  |  |  |
|  |  |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | (i)Write PHP script to display Fibonacci of length 10. (7) | BTL -2 | Understand |  |
| **4** | (ii)Write PHP script to compute the sum of positive integer up to 30 |  |  |  |
|  | using do – while statement. (6) |  |  |  |
| **5** | Discuss in detail about PHP scripting language (13) | BTL -1 | Remember |  |
|  | Write the PHP program to declare an array of integers, to sort them in | BTL -2 | Understand |  |
| **6** | ascending order and descending order to display the sorted array using |  |  |  |
|  | for-each(13) |  |  |  |
| **7** | Summarize in brief about arrays in PHP with suitable examples. (13) | BTL -5 | Evaluate |  |
| **8** | Explain the various types of functions used in PHP with an example (13) | BTL -4 | Analyze |  |
|  |  |  |
|  |  |  |  |  |
|  | Describe the followings | BTL -1 | Remember |  |
| **9** | (i) Types of Variables in PHP (7) |  |  |
|  |  |  |
|  | (ii)Normal scope and Global scope (6) |  |  |  |
| **10** | Explain linking MySQL with PHP with an example. (13) | BTL -4 | Analyze |  |
| **11** | Construct a PHP program to read a text file line by line and display it on | BTL -3 | Apply |  |
| screen. (13) |  |
|  |  |  |  |
| **12** | (i) What are the benefits of using PHP and MySQL? (8) | BTL -1 | Remember |  |
| (ii) Define Structured Query language. (5) |  |
|  |  |  |  |
|  | Create a HTML from “result.html” with a text box and a submit button |  |  |  |
|  | to accept registration number of the student. Write a “result.php” code to |  |  |  |
| **13** | check the status of the result from the table to display whether the | BTL -2 | Understand |  |
| student has “PASS” or “FAIL” status. Assume that the MYSQL |  |
|  |  |  |  |
|  | database “my\_db” has the table “result\_table” with two columns |  |  |  |
|  | REG\_NO and STATUS. (13) |  |  |  |
| **14** | Design a PHP Program for creating cookies (13) | BTL -6 | Create |  |
|  | PART-C |  |  |  |
| **1** | Explain client side scripting and server side scripting in detail with the | BTL -5 | Evaluate |  |
| neat sketch(15) |  |  |
|  |  |  |  |
|  | (i) Construct PHP script to compute factorial of ‘n’ using while or for |  |  |  |
| **2** | loop (7) | BTL -6 | Create |  |
| (ii)Construct a PHP script to compute the Square root, Square, Cube and |  |
|  |  |  |  |
|  | Quad of 10 numbers. (8) |  |  |  |
| **3** | Explain the File handling methods and explain with an example. (15) | BTL -5 | Evaluate |  |
|  |  |  |
|  |  |  |  |  |
|  | (i)Summarize about cookies and how they are used? (5) |  |  |  |
|  | (ii)Design a form that offer choices to user to select country name. |  |  |  |
| **4** | Depending on the name selected map image of the country should be | BTL -6 | Create |  |
| displayed on the same window and the capital of the country in the text |  |
|  |  |  |  |
|  | format should be displayed on the same window and the capital of the |  |  |  |
|  | country in the text format should be displayed near the image.(10) |  |  |  |
|  | **UNIT III - NETWORKING ESSENTIALS** |  |  |  |

Fundamental computer network concepts - Types of computer networks - Network layers - TCP/IP model - Wireless Local Area Network - Ethernet - Wi-Fi -Network Routing -

Switching - Network components

**PART-A**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **1** | Define a Computer Networks. | BTL -1 | Remember |  |
|  |  |  |  |  |
| **2** | List the types of Computer Networks. | BTL -1 | Remember |  |
|  |  |  |  |  |
| **3** | What is System Area Network (SAN)? | BTL -4 | Analyze |  |
|  |  |  |  |  |
| **4** | What is POLAN? | BTL -1 | Remember |  |
|  |  |  |  |  |
| **5** | Write the function of data link layer | BTL -1 | Remember |  |
|  |  |  |  |  |
| **6** | List the available network components. | BTL -4 | Analyze |  |
|  |  |  |  |  |
| **7** | Compare the Gateway and Terminal of Computer network | BTL -4 | Analyze |  |
|  |  |  |  |  |
| **8** | Write the types of transmission media in WLAN? | BTL -1 | Remember |  |
|  |  |  |  |  |
| **9** | How many bits does IPV6 address contain? How is it different from | BTL -2 | Understand |  |
| IPV4? |  |
|  |  |  |  |
| **10** | Draw the network layers and explain it. | BTL -5 | Evaluate |  |
|  |  |  |  |  |
| **11** | Classify the TCP / IP Model | BTL -3 | Apply |  |
|  |  |  |  |  |
| **12** | Define Ethernet. | BTL -6 | Create |  |
|  |  |  |  |  |
| **13** | Examine the Transport Layer and Application Layer | BTL -3 | Apply |  |
|  |  |  |  |  |
| **14** | Mention the services specified by IEEE 802.11 | BTL -3 | Apply |  |
|  |  |  |  |  |
| **15** | Compare OSI and TCP/IP? | BTL -6 | Create |  |
|  |  |  |  |  |
| **16** | Write about Routing schemes. | BTL -2 | Understand |  |
|  |  |  |  |  |
| **17** | State the difference between WLAN and WAN | BTL -2 | Understand |  |
|  |  |  |  |  |
| **18** | Construct Half Duplex Transmission. | BTL -5 | Evaluate |  |
|  |  |  |  |  |
| **19** | List the topologies in LANs. | BTL -1 | Remember |  |
|  |  |  |  |  |
| **20** | What is Bridge? | BTL -2 | Understand |  |
|  |  |  |  |  |
|  | **PART-B** |  |  |  |
|  |  |  |  |  |
| **1** | Describe in detail the types of Computer Networks(13) | BTL -1 | Remember |  |
|  |  |  |  |  |
| **2** | Draw the layers of OSI model and explain in detail (13) | BTL -5 | Evaluate |  |
|  |  |
|  |  |  |  |  |
| **3** | Explain about WLAN(13) | BTL -3 | Apply |  |
| **4** | Explain in detail about the TCP/IP Model (13) | BTL -2 | Understand |  |
|  |  |
|  |  |  |  |  |
| **5** | Describe the Internet protocol model with an example (13) | BTL -1 | Remember |  |
|  |  |
|  |  |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **6** | Summarize the different type of transmission medium used in | BTL -2 | Understand |  |
| WLAN (13) |  |
|  |  |  |  |
|  |  |  |  |  |
| **7** | (i)What are routers? Explain in detail? (7) | BTL -2 | Understand |  |
| (ii)Explain routing metrics in detail (6) |  |
|  |  |  |  |  |
| **8** | Given an example, identify a Media Access Control (MAC) address | BTL -4 | Analyze |  |
| used by IEEE 802.11(13) |  |
|  |  |  |  |
| **9** | (i)Describe the Ethernet MAC sublayer.(3) | BTL -1 | Remember |  |
| (ii)Explain the basic Ethernet Frame Format in detail.(10) |  |
|  |  |  |  |
| **10** | Explain Ethernet Frame Transmission in detail.(13) | BTL -4 | Analyze |  |
|  |  |
|  |  |  |  |  |
| **11** | (i)Summarize basic components of Wi-Fi(7) | BTL -4 | Analyze |  |
| (ii)Explain IEEE 802.11 physical layer (PHY) in detail.(6) |  |
|  |  |  |  |
| **12** | (i)Describe routing schemes in details (3) | BTL -1 | Remember |  |
| (ii) Describe in detail routing algorithms (10) |  |
|  |  |  |  |
| **13** | Classify the names of various network components and explain | BTL -3 | Apply |  |
| them(13) |  |
|  |  |  |  |
|  | i)Summarize full details of Network Topologies with suitable | BTL -6 | Create |  |

1. diagram. (7)

ii)Compare and Contrast different types switching methodologies in network communication.(6)

PART-C

|  |  |
| --- | --- |
| (i)Show how data flows through different layers in a TCP/IP network, | BTL -6 Create |
| calculate the number of times encapsulation and decapsulation take |  |

1. place.(7)

(ii) Discuss the collision avoidance technique used in wireless LAN.Is it possible for collisions to still occur? Explain.(8)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **2** | Summarize the operations of Ethernet in detail. (15) | BTL -5 | Evaluate |  |
|  |  |
|  |  |  |  |  |
| **3** | Explain in detail about Wi-Fi technology. (15) | BTL -5 | Evaluate |  |
|  |  |  |  |  |
| **4** | (i) Propose Multicast Forwarding (8) | BTL -6 | Create |  |
| (ii)Construct bridge and explain its types.(7) |  |  |  |
|  |  |  |  |

**UNIT IV - MOBILE COMMUNICATION ESSENTIALS**

Cell phone working fundamentals - Cell phone frequencies & channels - Digital cell phone components - Generations of cellular networks - Cell phone network technologies / architecture - Voice calls & SMS

**PART-A**

|  |  |  |  |
| --- | --- | --- | --- |
| **1** | Write the names of cellular system components. | BTL -1 | Remember |
|  |  |  |  |
| **2** | What is channel allocation? | BTL -1 | Remember |
|  |  |  |  |
| **3** | Compare TDMA and FDMA. | BTL -2 | Understand |
|  |  |  |  |
| **4** | List the types of Handoff | BTL -1 | Remember |
|  |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **5** | Distinguish between FCA and DCA | BTL -2 | Understand |  |
|  |  |  |  |  |
| **6** | What is Soft Handoff? | BTL -4 | Analyze |  |
|  |  |  |  |  |
| **7** | Write the components of mobile phone | BTL -1 | Remember |  |
|  |  |  |  |  |
| **8** | Distinguish between fourth generation and fifth generation of network | BTL -4 | Analyze |  |
|  |  |  |  |  |
| **9** | What is GSM? | BTL -1 | Remember |  |
|  |  |  |  |  |
| **10** | List the advantages of GSM. | BTL -4 | Analyze |  |
|  |  |  |  |  |
| **11** | What is VLR? | BTL -3 | Apply |  |
|  |  |  |  |  |
| **12** | How are the HLR and VLR used? | BTL -6 | Create |  |
|  |  |  |  |  |
| **13** | List the Generations of cellular networks | BTL -3 | Apply |  |
|  |  |  |  |  |
| **14** | What is difference between CDMA and GSM? | BTL -3 | Apply |  |
|  |  |  |  |  |
| **15** | Define the term IMEI | BTL -6 | Create |  |
|  |  |  |  |  |
| **16** | Define hard handoff | BTL -2 | Understand |  |
|  |  |  |  |  |
| **17** | What are the services provided by GSM? | BTL -5 | Evaluate |  |
|  |  |  |  |  |
| **18** | Calculate the reuse distance in cellular communication given the radius | BTL -5 | Evaluate |  |
| of a cell to be 10 sqkm and the number of user in the cell is 48. |  |
|  |  |  |  |
| **19** | Define LTE | BTL -1 | Remember |  |
|  |  |  |  |  |
| **20** | Write about GPRS | BTL -2 | Understand |  |
|  |  |  |  |  |
|  | **PART-B** |  |  |  |
| **1** | Describe the overview cell phone processing in detail (13) | BTL -1 | Remember |  |
|  |  |  |  |
|  |  |  |  |  |
| **2** | Explain in detail about channel allocation (13) | BTL -2 | Understand |  |
|  |  |  |  |  |
| **3** | Draw Mobile PCB and function in PCB diagram with explanation(13) | BTL -3 | Apply |  |
|  |  |  |  |  |
| **4** | Summarize the digital cell phone components(13) | BTL -4 | Analyze |  |
| **5** | Explain cell phone network technologies in detail(13) | BTL -5 | Evaluate |  |
|  |  |  |
|  | (i) Briefly discuss how call roaming service is carried out in cellular | BTL -1 | Remember |  |
| **6** | network (7) |  |  |  |
|  | (ii) Explain about generation of cellular networks.(6) |  |  |  |
| **7** | (i) Explain different services are provided by GSM in detail.(7) | BTL -2 | Understand |  |
| (ii) Discuss in detail about the Mobility Management(6) |  |  |  |
|  |  |  |  |
|  |  |  |  |  |
|  | (i)Explain security service of GSM. (5) | BTL -4 | Analyze |  |
| **8** | (ii)What is the advantage of GPRS over GSM? Also explain the |  |  |  |
|  | architecture of GPRS.(8) |  |  |  |
| **9** | Describe the difference between 1G,2G,3G and 4G (13) | BTL -1 | Remember |  |
|  |  |  |  |
|  |  |  |  |  |
| **10** | Construct UMTS System Architecture(13) | BTL -6 | Create |  |
|  |  |  |
|  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- |
| **11** | Discuss in detail Long Term Evolution(LTE) technology(13) | | BTL -2 | Understand |  |
|  |  |  |
|  |  |  |  |  |
|  |  | |  |  |  |
| **12** | Discuss the procedure of voice calls and SMS transmitting and receiving | | BTL -4 | Analyze |  |
| in elaborate.(13) | |  |  |  |
|  |  |  |  |
|  |  |  |  |  |  |
| **13** | Draw Classification of CDMA channel diagram and explain(13) | | BTL -3 | Apply |  |
|  |  |  |
|  |  |  |  |  |  |
| **14** | Discuss call flow in Mobile to Mobile with neat sketch.(13) | | BTL -1 | Remember |  |
|  |  |  |
|  |  |  |  |  |  |
|  |  | PART-C |  |  |  |
|  |  | |  |  |  |
| **1** | Explain in detail about fundamentals of cell phone working(15) | | BTL -5 | Evaluate |  |
|  |  |  |  |
|  | (i)Discuss about Evolution types (3) | |  |  |  |
| **2** | (ii)Explain high level functions of UMTS domains including PS | | BTL -6 | Create |  |
|  | domain(12) |  |  |  |  |
| **3** | (i)What are the parameters that GPRS allows defining QoS profiles?(3) | | BTL -5 | Evaluate |  |
| (ii)Explain the | GPRS architecture with a neat diagram(12) |  |
|  |  |  |  |
|  | (i)Write about | Salient features of CDMA technology (5) | BTL -6 | Create |  |

1. (ii)Explain CDMA channels in detail(10)

**UNIT V - APPLICATION ESSENTIALS**

Creation of simple interactive applications - Simple database applications - Multimedia applications - Design and development of information systems – Personal Information System – Information retrieval system – Social networking applications

**PART-A**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **1** | Define interactive application | BTL -1 | Remember |  |
|  |  |  |  |  |
| **2** | Enlist the advantage of interactive application | BTL -1 | Remember |  |
|  |  |  |  |  |
| **3** | What are the steps involved in a typical application development life | BTL -2 | Understand |  |
| cycle? |  |
|  |  |  |  |
| **4** | Define the terms-Data base and DBMS | BTL -1 | Remember |  |
|  |  |  |  |  |
| **5** | Write the advantage DBMS | BTL -1 | Remember |  |
|  |  |  |  |  |
| **6** | List the stages of information retrieval | BTL -4 | Analyze |  |
|  |  |  |  |  |
| **7** | Write about the data model in data base | BTL -2 | Understand |  |
|  |  |  |  |  |
| **8** | Define data Dictionary | BTL -1 | Remember |  |
|  |  |  |  |  |
| **9** | What is primary key? | BTL -4 | Analyze |  |
|  |  |  |  |  |
| **10** | What is multimedia technology? | BTL -4 | Analyze |  |
|  |  |  |  |  |
| **11** | Brief discuss about Information system | BTL -3 | Apply |  |
|  |  |  |  |  |
| **12** | Mention the different types of information system | BTL -6 | Create |  |
|  |  |  |  |  |

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| **13** | Classify information retrieval models | BTL -3 | Apply |  |
|  |  |  |  |  |
| **14** | What is Information Retrieval System (IRS)? | BTL -3 | Apply |  |
|  |  |  |  |  |
| **15** | What is Search engine? | BTL -6 | Create |  |
|  |  |  |  |  |
| **16** | Write about Spam. | BTL -2 | Understand |  |
|  |  |  |  |  |
| **17** | Outline Web crawler | BTL -5 | Evaluate |  |
|  |  |  |  |  |
| **18** | Write about popular search engine | BTL -5 | Evaluate |  |
|  |  |  |  |  |
| **19** | List some social network applications | BTL -1 | Remember |  |
|  |  |  |  |  |
| **20** | Write any four multimedia applications used in education domain. | BTL -2 | Understand |  |
|  |  |  |  |  |
|  | PART-B |  |  |  |
|  | (i)Describe creation of simple interactive application.(7) |  |  |  |
| **1** | (ii)Discuss about steps for creating simple interactive web | BTL -2 | Understand |  |
|  | application.(6) |  |  |  |
|  | (i)Describe the simple data base application and explain the uses of data | BTL -1 |  |  |
| **2** | Base (7) |  | Remember |  |
|  | (ii).Discuss about advantage and disadvantage of DBMS (6) |  |  |  |
| **3** | (i)Summarize the Interactive power point at work(7) | BTL -2 | Understand |  |
| (ii)Explain action buttons and hyperlinks.(6) |  |
|  |  |  |  |
| **4** | Summarize Graphics, Audio and video in Multimedia(13) | BTL -4 | Analyze |  |
|  |  |  |  |
|  |  |  |  |  |
| **5** | Explain types of Information systems(13) | BTL -5 | Evaluate |  |
|  |  |  |  |
|  |  |  |  |  |
|  | (i)Explain about information system.(7) | BTL -4 | Analyze |  |
| **6** | (ii)Point out the Characteristics of information system.(6) |  |  |  |
|  |  |  |  |  |
| **7** | Describe the design and development of information system.(13) | BTL -1 | Remember |  |
|  |  |
|  |  |  |  |  |
|  | Design the simple personal application that gives you reminder for each |  |  |  |
| **8** | day .identify the inputs to be taken, processing to be done, and the | BTL -4 | Analyze |  |
| output to be produced .what multimedia components can be added to |  |
|  | this application?(13) |  |  |  |
|  |  |  |  |  |
| **9** | Describe systems- Development Life Cycle.(13) | BTL -1 | Remember |  |
|  |  |
|  |  |  |  |  |
|  | (i)Construct general view of Information retrieval(7) |  |  |  |
| **10** | (ii)Construct retrieval models(6) | BTL -3 | Apply |  |
|  |  |  |  |
|  |  |  |  |  |
|  | (i) Explain Evaluation on Informative retrieval system(5) |  |  |  |
| **11** | (ii)Explain about Text Information retrieval(8) | BTL -2 | Understand |  |
|  |  |  |  |
|  |  |  |  |  |

1. Design a simple personal application that gives you reminders for each day. Identify the inputs to be taken, processing to be done, and the output to be produced. What multimedia components can be added to

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **12** | this application? (7) | BTL -6 | Create |  |
| (ii) Explain the architecture of a generic search system. If this system is |  |
|  |  |  |  |
|  | to be used for searching only images, which components would need to |  |  |  |
|  | be changed and how? (6) |  |  |  |
|  |  |  |  |  |
|  | (i) Explain the architecture, of a text search system. How would this |  |  |  |
|  | have to be modified for music search?. (7). |  |  |  |
| **13** | (ii) Design an app for your personal use - reminders for homework! If | BTL -1 | Remember |  |
| you also have to remind your class-mates and friends, what additional |  |
|  |  |  |  |
|  | features would ‘you need ?(6) |  |  |  |

1. Design an application for a blood bank which accept blood request and based on the request it identify the people from the database and send them the message. What are the important features needed for this?(6)
2. Consider a multinational company which sells different electronic gadgets such as desk tops, lap tops, tablets, cameras, mobile, phones,

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| --- | --- | --- | --- | --- |
| **14** | etc. through online or various dealers. Dealers are registered with the | BTL -3 | Apply |  |
|  | company. Customers can buy through online or dealers. Delivery of |  |  |  |
|  | electronic goods will be through various agencies. Every shipment of |  |  |  |
|  | goods will be insured through insurance company. Considering this as |  |  |  |
|  | an Information System project, describe the various requirements for |  |  |  |
|  | building this Information System.(7) |  |  |  |
|  |  |  |  |  |
|  | PART-C |  |  |  |
|  |  |  |  |  |
| **1** | Construct simple data base application for Student Information System | BTL -5 | Evaluate |  |
| and explain (15) |  |  |  |
|  |  |  |  |
|  | Explain in brief: (i)All –in- one Media players (3) |  |  |  |
|  | (ii) Dedicated Music Players(3) |  |  |  |
| **2** | (iii) video downloaders(3) | BTL -6 | Create |  |
| (iv) waveform editors (3) |  |
|  |  |  |  |
|  | (v) video editors.(3) |  |  |  |
|  |  |  |  |  |
|  | (i) What is an information system? What are the steps involved in the | BTL -5 |  |  |
|  | design and development of an information system? (7) |  |  |  |
| **3** | (ii) Design a simple social-media application to pass on messages to |  | Evaluate |  |
| friends whenever two people come in contact with (within range of) one |  |  |
|  |  |  |
|  | another. Assume that you are using devices with Blue-tooth support to |  |  |  |
|  | transfer messages. (8) |  |  |  |
|  |  |  |  |  |
| **4** | Construct the generation of simple interactive application.(15) | BTL -6 | Create |  |
|  |  |
|  |  |  |  |  |