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| **Velegapudi Ramakrishna Siddhartha Engineering College::Vijayawada**  **(Autonomous)**  III /IV B Tech Degree Examinations(Month/Year)  Fifth Semester  **Department of Information Technology**  **20IT5301:COMPUTER NETWORKS** | | | | | | | |
| Time:3Hrs | | | **MODEL QUESTION PAPER** | | Max Marks:70 | | |
| Part – A is Compulsory  Answer one (01) question from each unit of Part – B  Answers to any single question or its part shall be written at one place only | | | | | | | |
| ***Cognitive Levels(K): K1-Remember;K2-Understand; K3-Apply; K4-Analyze; K5-Evaluate; K6-Create*** | | | | | | | |
| **Q. No** | | **Question** | | **Marks** | | **Course Outcome** | **Cog. Level** |
| **Part - A** | | | | **10X1=10M** | | | |
| 1 | a | **Define Point-to-point networks?** | | 1 | CO1 | | K1 |
|  | b | **List the differences between OSI and TCP reference models** | | 1 | CO1 | | K2 |
|  | c | **Do routers have IP addresses? If so, how many?** | | 1 | CO3 | | K4 |
|  | d | **Write the purpose of cookies?** | | 1 | CO4 | | K4 |
|  | e | **How is Host aliasing used?** | | 1 | CO4 | | K1 |
|  | f | **Convert the IP address 223.1.3.27** **in to 32-bit binary equivalent.** | | 1 | CO3 | | K3 |
|  | g | **What is subnet?** | | 1 | CO3 | | K4 |
|  | h | **Discuss single-hop infrastructure based wireless networks** | | 1 | CO2 | | K2 |
|  | I | **Why network need security?** | | 1 | CO2 | | K4 |
|  | j | **Define firewall** | | 1 | CO2 | | K1 |
| **Part - B** | | | | **4X15 =60M** | | | |
| **UNIT - I** | | | | | | | |
| 2 | a | **“Computer networks are useful for real time applications”, Justify.** | | 8M | CO1 | | K4 |
|  | b | **Describe in brief the design issues for the layers** | | 7M | CO1 | | K4 |
| **(OR)** | | | | | | | |
| 3 | a | **Explain in detail about OSI Reference Model with neat sketch.** | | 10M | CO1 | | K2 |
|  | b | **Differentiate a circuit-switched network with a packet-switched network.** | | 5M | CO1 | | K2 |
| **UNIT - II** | | | | | | | |
| 4 | a | **Outline the general formats of HTTP request and response message for a web page** | | 8M | CO4 | | K1 |
|  | b | **Summarise the process of how people send and receive messages with SMTP.** | | 7M | CO4 | | K2 |
| **(OR)** | | | | | | | |
| 5 | a | **Analyse the causes and cost of congestion control with an example scenario**. | | 8M | CO4 | | K4 |
|  | b | **Evaluate UDP checksum with an example**. | | 7M | CO4 | | K3 |
| **UNIT - III** | | | | | | | |
| 6 | a | **What is Virtual circuit network, explain in detail?** | | 9M | CO3 | | K2 |
|  | b | **Explain error detection and correction techniques.** | | 6M | CO3 | | K5 |
| **(OR)** | | | | | | | |
| 7 | a | **Illustrate the distance vector routing algorithm with an example.** | | 8M | CO3 | | K3 |
|  | b | **Consider the network shown below, with the indicated link costs. Use Dijkstra's shortest path algorithm to compute a table to find the shortest past from F to all network nodes.** | | 7M | CO3 | | K3 |
| **UNIT - IV** | | | | | | | |
| 8 | a | **Analyse CDMA with simple example.** | | 7M | CO2 | | K2 |
|  | b | **Explain 802.11 architecture.** | | 8M | CO2 | | K2 |
| **(OR)** | | | | | | | |
| 9 | a | **Describe the functioning of DES algorithm with a neat sketch** | | 7M | CO2 | | K2 |
|  | b | **What is firewall? Explain the categories of firewall.** | | 8M | CO2 | | K1 |

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| **Designation** | **Name in Capitals** | **Signature with Date** |
| **Course Coordinator** | **Dr.N.Neelima** |  |
| **Module Coordinator** | **Dr.S.Suhasini** |  |
| **Program Coordinator** | **Dr. G.Kalyani** |  |
| **Head of the Department** | **Dr. M.Suneetha** |  |

**VELAGAPUDI RAMAKRISHNA**

**SIDDHARTHA ENGINEERING COLLEGE::VIJAYAWADA**

**(AUTONOMOUS)**

Dt.12-06-2019

**GUIDELINES FOR FRAMING MODEL QUESTION PAPER**

The model papers for all subjects in a semester are gathered from the departments whenever a course is offered for the first time adopting new regulation. All the Heads of the Departments are requested to direct their faculty to strictly adhere to the following guidelines while framing the model question papers for the subjects of UG and PG courses in the new curriculum.

1. Questions must be covered unit-wise uniformly as per the syllabus without missing the competency.
2. The question paper shall reflect the ***Bloom’s Cognitive Levels of Learning***.

**Cognitive Levels (K): K1-Remember; K2-Understand; K3-Apply; K4-Analyze; K5-Evaluate; K6-Create**

* The composition of question paper shall have questions at different complexity levels as listed below:
* Questions that can be attempted by an average student (K1 & K2) 40%
* Questions of intermediate complexity (K3 & K4) 40-50%
* Questions of design and application oriented nature (K5 & K6) 10-20%

1. Question paper is to be set conforming to the OBE pattern clearly mentioning the Course Outcomes and Bloom’s Cognitive Levels against each question.
2. The questions are to be set with minimum 2 sub-questions (a) & (b) for each main question to the extent possible covering entire syllabus in the unit.
3. Specify the marks against each question / part of a question in Part B.
4. The figures, if any, may be computer aided or neatly drawn with black pen indicating clearly the values/dimensions.
5. Prepare the one mark questions in only sentence form. Answers to these questions must be unique and having short answers limited to three/four lines.

**PRINCIPAL**