

I B. Tech I Semester Supplementary Examinations, July/August - 2021**FUNDAMENTALS OF COMPUTER SCIENCE**

(Com. to CSE, IT)

Time: 3 hours

Max. Marks: 75

Answer any five Questions one Question from Each Unit
All Questions Carry Equal Marks

1. a) Explain the components and their functionality of a CPU. (8M)
b) What is the need of a memory? Explain memory hierarchy. (7M)

Or

2. a) What is a mother board? Describe its generic layout. (8M)
b) Describe the fundamental differences among various Memory devices. (7M)

3. a) What is language processing? Write about Compiler and Interpreters in detail. (8M)
b) Draw a flow chart to compute the profit or loss of a business. (7M)

Or

4. a) What is structured programming? How are conditions and selections specified in structured programming? (8M)
b) What is an Algorithm? How does an algorithm differ from a pseudo code and a program? (7M)

5. a) What is an Operating system? How does it act as a task scheduler? Explain. (8M)
b) What is IP address? Explain its significance in Networking? (7M)

Or

6. a) Compare and contrast between GUI based Operating system and CLI based Operating System. (8M)
b) What is Network Interface Card? Why we need NIC in Network? (7M)
7. a) What is a File system? Write the applications and advantages of File systems. (8M)
b) What is a Database? Write a short note on different database models? (7M)

Or

8. a) What is the role of analysis in system development? (8M)
b) What is Relational Database Management System? Why is it so popular? Justify. (7M)
9. a) What is Grid Computing? Explain its components? (8M)
b) Describe the applications of grid computing. How does it differ from distributed computing. (7M)

Or

10. a) What is Cloud computing? Describe its pros and cons over conventional data centers? (8M)
b) What is Wireless Sensor Network? Explain the applications of WSN's? (7M)