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| **Pragnya education trust’s** |
| **Pragnya college of management & computer studies,** |
| **Handewadi, Pune-411060** |
| **Examination(2020-2021)** |
| **BBA (CA) -- Semester: IV** |
|  |
| **Sub: Networking Marks :30M Time : 1hour** **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |
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|  **All question carry equal mark attempt any three questions** 1. Explain basics of Computer Network? Explain Applications of computer network?
2. Explain types of Networks?
3. Explain simplex , half duplex, full duplex modes of communication?
4. Explain Protocols and Standards & Protocol Hierarchies?

  **Sub: Object Oriented Concepts Through CPP Marks :30M Time : 1hour \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  |

 **All question carry equal mark attempt any three** **questions**

1. Explain what is object oriented programming ? Explain advantages and applications of OOP?
2. Explain data types & operators in C++?
3. Explain what is mean by class ? Explain what is object?
4. Explain the need for constructors and types of constructors?

**Sub:** **Operating System Marks :30M Time : 1hour**

 **All questions carry equal mark attempt any three questions**

1. Explain what is operating system? Explain Services provided by OS?
2. Explain Simple structure & Layered approach of OS?
3. Explain what is process & process states in detail ?
4. Write about scheduling? Explain CPU- I/O Burst Cycle , CPU Scheduler?

 **Sub:**  **NODE JS Marks :30M Time : 1hour**

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 **All questions carry equal mark attempt any three questions**

1. Explain what is Node JS? Write advantages of Node JS?
2. Explain Node.js Process Model?
3. Explain working in REPL?
4. Write the concept of Functions , Buffer & Module ?

 **Sub:**  **Advanced PHP Marks :30M Time : 1hour**

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**All questions carry equal mark attempt any three questions**

1. Explain concepts of classes, objects & introspection in PHP?
2. Explain what is XML? Explain XML document structure?
3. Write about java scripts for AJAX?
4. Explain requirement of web services? Explain basic operational model of web services?