Institute of Information Technology

Jahangirnagar University

Professional Masters in IT

2nd Semester Final Examination, Fall 2022

Duration: 3 Hours

Intake: Summer 2022, Spring 2022

Full Marks: 60

Course Code: PMIT – 6201

Course Title: Cloud and Computing

Do not write anything on the question paper.
There are **7 (Seven)** questions. Answer any **5 (Five)** of them.
Figures in the right margin indicate marks.
[Follow the question order]

1. a. What is cloud computing? What are the challenges of cloud computing? Explain. — 4
   b. How does service-oriented computing differs from utility computing? Explain. — 4
   c. Briefly describe the computing paradigm. — 4

2. a. What is distributed system? What are the properties of a distributed system? — 4
   b. What do you mean by "transparent distributed system"? When you can say a distributed system as fully transparent? Explain. — 6
   c. How grid computing differs from clustered computing? — 2

3. a. What is parallel processing? Briefly describe the hardware architecture of parallel processing. — 6
   b. What is software architecture style of distributed system? How Data cantered architecture works? Explain. — 4
   c. How much benefit an application or software gain from parallelism? — 2

4. a. How two-tier architecture can differ from three-tier architecture? Explain. — 2
   b. What is software agent? Why is software agent required? Explain with an example. — 5
   c. What is RPC? How it works? Explain. — 5

5. a. Briefly describe the properties of cloud computing that are supported by virtualization. — 8
   b. What is control automation? How does these properties can be achieved? — 4

6. a. What is SOA? Briefly describe the internal structure of SOA. — 4
   b. Why REST is more popular than SOAP? Explain. — 3
   c. Briefly describe how execution level virtualization works. — 5

7. a. Briefly explain why enterprise will shift their business into cloud? — 5
   b. PaaS is providing certain services to application developer which makes application development lifecycle very easy. Briefly describe about those services that are provided by PaaS. — 5
   c. What are the potential drawbacks of PaaS? — 2