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MCA
(SEM I) THEORY EXAMINATION 2025-26
FUNDAMENTAL OF COMPUTERS & EMERGING TECHNOLOGIES

TIME: 3 HRS

M.MARKS: 70

Note: Attempt all Sections. In case of any missing data; choose suitably.

SECTION A

1. Attempt all questions in brief.

02 x 7 = 14

Q no.	Question	CO	Level
a.	List the major components of a computer system.	1	K1
b.	What are output devices?	1	K1
c.	Define an operating system.	2	K2
d.	Define FTP.	3	K1
e.	What is Telnet?	3	K1
f.	Define blockchain.	4	K2
g.	What is augmented reality (AR)?	5	K1

SECTION B

2. Attempt any three of the following:

07 x 3 = 21

Q no.	Question	CO	Level
a.	Explain input, output, CPU and memory units with diagrams.	1	K2
b.	Explain LAN, MAN and WAN with examples.	2	K3
c.	Explain the Internet, its architecture and functioning.	3	K2
d.	Discuss features, limitations and applications of blockchain.	4	K3
e.	Discuss grid computing and green computing.	5	K3

SECTION C

3. Attempt any one part of the following:

07 x 1 = 07

a.	Describe the problem solving concept and algorithm development.	1	K3
b.	Explain characteristics, limitations and representation of algorithms using pseudo-code.	1	K3

4. Attempt any one part of the following:

07 x 1 = 07

a.	Explain different types and classifications of operating systems.	2	K2
b.	Discuss data communication and network topologies in detail.	2	K2

5. Attempt any one part of the following:

07 x 1 = 07

a.	Define IoT and explain its components.	3	K3
b.	Explain search engines, e-mail and web browsers.	3	K2

6. Attempt any one part of the following:

07 x 1 = 07

a.	Explain cloud computing, its nature and benefits.	4	K2
b.	Discuss cloud services provided by AWS, Google, Microsoft and IBM.	4	K3

7. Attempt any one part of the following:

07 x 1 = 07

a.	Explain big data analytics and its applications.	5	K2
b.	Explain brain computer interface and its applications.	5	K2