



PAPER ID-411498

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Subject Code: KMC202

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BTECH
(SEM II) THEORY EXAMINATION 2023-24
EMERGING TECHNOLOGY FOR ENGINEERING

TIME: 3 HRS**M.MARKS: 100****Note:** 1. Attempt all Sections. If require any missing data; then choose suitably.**SECTION A****1. Attempt all questions in brief.****2 x 10 = 20**

Q no.	Question	Marks	CO
a.	Name two types of sensors used in IoT applications.	02	1
b.	Give one example of how IoT is used in smart cities.	02	1
c.	What are AWS an acronym for?	02	2
d.	What cloud service does Microsoft offer?	02	2
e.	Name one fundamental principle of blockchain.	02	3
f.	Give one example of a blockchain application.	02	3
g.	Define a drone.	02	4
h.	Name one design principle used in 3D printing.	02	4
i.	What is Virtual Reality (VR)?	02	5
j.	Name one application of BCI technology.	02	5

SECTION B**2. Attempt any three of the following:****3 x 10 = 30**

a.	Evaluate the significance of the Industrial Internet of Things (IIoT). How does IIoT differ from consumer IoT?	10	1
b.	Define cloud computing and explain its essential characteristics. How does cloud computing differ from traditional computing?	10	2
c.	Define blockchain technology and explain its fundamental principles.	10	3
d.	Discuss the history and evolution of 3D printing technology. What are its current capabilities and limitations?	10	4
e.	Explain the concept and applications of Brain-Computer Interfaces (BCIs).	10	5

SECTION C**3. Attempt any one part of the following:****1 x 10 = 10**

a.	Discuss the main components and layers of an IoT architecture. How do these layers interact to facilitate data collection, processing, and communication in an IoT system?	10	1
b.	Describe the different types of sensors used in IoT applications.	10	1

4. Attempt any one part of the following:**1 x 10 = 10**

a.	Explain the cloud services provided by Microsoft. How do Microsoft Azure's features and capabilities contribute to cloud computing advancements?	10	2
b.	Analyze the cloud computing services offered by Google. What are the key features of Google Cloud Platform?	10	2

5. Attempt any one part of the following:**1 x 10 = 10**

a.	Explain the concept of smart contracts in blockchain technology.	10	3
b.	Evaluate various blockchain applications and use cases across different industries.	10	3



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EMERGING TECHNOLOGY FOR ENGINEERING

TIME: 3 HRS**M.MARKS: 100****6. Attempt any *one* part of the following:****1 x 10 = 10**

a.	Explain the design principles and tools used in 3D printing. What software tools are commonly used?	10	4
b.	Discuss the regulations and procedures for becoming a drone pilot.	10	4

7. Attempt any *one* part of the following:**1 x 10 = 10**

a.	Explain the concepts of Augmented Reality (AR) and Virtual Reality (VR). How do AR and VR technologies differ?	10	5
b.	Discuss the history, objectives, and global scenario of 5G telecom. How 5G technology expected to revolutionize telecommunications?	10	5

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