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NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA
(An Autonomous Institute Affiliated to AKTU, Lucknow)

MCA Integrated

SEM: III - THEORY EXAMINATION (2025 - 2026)

Subject: Emerging Trends And Technology

Time: 3 Hours

Max. Marks: 100

General Instructions:

IMP: Verify that you have received the question paper with the correct course, code, branch etc.

1. This Question paper comprises of **three Sections -A, B, & C**. It consists of Multiple Choice Questions (MCQ's) & Subjective type questions.

2. Maximum marks for each question are indicated on right -hand side of each question.

3. Illustrate your answers with neat sketches wherever necessary.

4. Assume suitable data if necessary.

5. Preferably, write the answers in sequential order.

6. No sheet should be left blank. Any written material after a blank sheet will not be evaluated/checked.

SECTION-A

20

1. Attempt all parts:-

- 1-a. Find out the following is designed to control the operations of a computer? (CO1, K1) 1
- (a) User
- (b) Application Software
- (c) System Software
- (d) Utility Software
- 1-b. Which of these output devices are used for the translation of information from any computer into a pictorial form on the papers? (CO1, K1) 1
- (a) Card punch
- (b) Touch panel
- (c) Plotter
- (d) Mouse
- 1-c. Which of the following is the feature of the operating system (CO2, K3) 1
- (a) Error detection aids
- (b) Control over system performance
- (c) All of these
- (d) Job Accounting
- 1-d. The small pictures on desktop are called... (CO2, K1) 1
- (a) Taskbar
- (b) Monitor
- (c) Icon
- (d) Keyboard

- 1-e. Speed of Internet is measured in (CO3, K1) 1
- (a) GHz
 - (b) Gbps
 - (c) GB
 - (d) Dpi
- 1-f. domain is used by profit business. (CO3, K1) 1
- (a) .com
 - (b) .edu
 - (c) .in
 - (d) .net
- 1-g. Using Print Preview is useful when you want to (CO4, K3) 1
- (a) Colour the document
 - (b) Save the document
 - (c) Copy the document
 - (d) View how the document will appear when printed
- 1-h. Data that is copied from an application is stored in the.. (CO4, K2) 1
- (a) Driver
 - (b) Terminal
 - (c) Prompt
 - (d) Clipboard
- 1-i. The correct full form of PaaS... (CO5, K1) 1
- (a) Platform-as-a-Software
 - (b) Platform-and-a-Server
 - (c) Platform-and-a-Service
 - (d) Platform-as-a-Server
- 1-j. The inventor of Artificial Intelligence.... (CO5, K1) 1
- (a) Geoffrey Hinton
 - (b) Andrew Ng
 - (c) John McCarthy
 - (d) Jürgen Schmidhuber

2. Attempt all parts:-

- 2.a. Describe the differences between primary and secondary storage devices. (CO1, K2) 2
- 2.b. Define Operating System with suitable diagram. (CO2, K2) 2
- 2.c. Explain IoT. (CO3, K1) 2
- 2.d. List out any five mathematical functions in MS-Excel. (CO4, K1) 2
- 2.e. Mention the characteristics of Emerging Technologies. (CO5, K3) 2

SECTION-B

30

3. Attempt all parts:-

- 3.a. Answer any one of the following:-

3.a.(i)	Explain the algorithm with it's features. Write an algorithm to find smallest numbers from three numbers. (CO1, K2)	6
3.a.(ii)	Explain the following (i) CPU (ii) Pseudo-code (CO1, K1)	6
3.b.	Answer any one of the following:-	
3.b.(i)	Explain different operating system structures with neat sketch. (CO2, K4)	6
3.b.(ii)	Explain Network Topologies. Also discuss various Network Topologies with suitable diagram. (CO2, K2)	6
3.c.	Answer any one of the following:-	
3.c.(i)	Explain Search engine and Protocol with examples. (CO3, K2)	6
3.c.(ii)	Discuss the Internet of Things (IoT) with an example, and explain the importance of IoT devices for developing smart cities. (CO3, K1)	6
3.d.	Answer any one of the following:-	
3.d.(i)	Explain chart. Write the steps to create a chart in Microsoft Excel. (CO4, K3)	6
3.d.(ii)	Discuss format painter and conditional formatting in MS Word with an example. (CO4, K3)	6
3.e.	Answer any one of the following:-	
3.e.(i)	Define Cloud Computing and Grid Computing. Explain in detail. (CO5, K1)	6
3.e.(ii)	Discus Big Data with it's essential features. (CO5, K2)	6
SECTION-C		50
4.	Answer any <u>one</u> of the following:-	
4-a.	Explain the computer software? And also describe various type of computer software with example. (CO1, K1)	10
4-b.	Explain different types of language translators. (CO1, K1)	10
5.	Answer any <u>one</u> of the following:-	
5-a.	Explain computer network with it's types. Also mention diagram and advantages of each network. (CO2, K2)	10
5-b.	Define Operating System. Explain it's types with diagram. (CO2, K2)	10
6.	Answer any <u>one</u> of the following:-	
6-a.	Define E-Mail. What is the role of signature in email? Differentiate between CC and BCC headers. (CO3, K2)	10
6-b.	Summarize Internet of things(IoT) and Industrial Internet of Things(IIoT) in details. (CO3, K2)	10
7.	Answer any <u>one</u> of the following:-	
7-a.	Explain HLOOKUP and VLOOKUP in MS-Excel with suitable syntax and example. (CO4, K3)	10
7-b.	Write short notes on following in context with MS PowerPoint a. Slide show view b. Slide master c. Slide sorter view (CO4, K3)	10
8.	Answer any <u>one</u> of the following:-	
8-a.	Discuss the importance and applications of Artificial Intelligence in real world. Write the example of AI tools. (CO5, K2)	10
8-b.	Explain Virtual Reality and it's applications. Explore the area in real world where it	10

is used. (CO5, K2)

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