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NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute Affiliated to AKTU, Lucknow)

MCA

SEM: II - THEORY EXAMINATION (2021 - 2022)

Subject: Fundamentals of Digital Marketing and Analytics

Time: 3 Hours   Max. Marks: 100

General Instructions:

1. The question paper comprises three sections, A, B, and C. You are expected to answer them as directed.

2. Section A - Question No- 1 is 1 marker & Question No- 2 carries 2 marks each.

3. Section B - Question No-3 is based on external choice carrying 6 marks each.

4. Section C - Questions No. 4-8 are within unit choice questions carrying 10 marks each.

5. 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   What do subject matter experts do to support data driven decision making? (CO1)   1

           (a) Review the results of data analyis and identify any inconsistencies

           (b) Validate the choices made as a result of the data insights

           (c) offer insights to the business problem

           (d) All of above

1   A junior data analyst is seeking out new experiences in order to gain knowledge. They watch   1
         videos and read articles about data analytics. They ask experts questions, which analytical
         skills are they using ? (CO1)

           (a) Data Strategy

           (b) Curiosity

           (c) Understanding Context

           (d) Having a technical mindset

1   If a data analyst wants to list cities in a spreadsheet alphabetically, then what should they use   1
         ? (CO2)

           (a) Organie Range

           (b) Sort range

(c) Name range

(d) Randomize range

1   A data analyst identifies repeating trends in the sales data. Which of the following is this   1
type of a problem ? (CO2)

    (a) Categorizing things

    (b) making predictions

    (c) identifying themes

    (d) Finding patterns

1   Pivot tables in data processing tools are used to _____ data. (CO3)   1

    (a) validate

    (b) summarize

    (c) clean

    (d) populate

1   Describe the difference between data and metrics ? (CO3)   1

    (a) Data can be used for measurement. Metrics cannot be used for measurement.

    (b) Data is quntifiable. Metrics are unquantifiable.

    (c) Data is a collection of facts. Metrics are quntifiable data types used for measurement.

    (d) Data is quantifiable and used for measurement. Metrics are unorganized collections of facts.

1   To communicate clearly with stakeholders and team members, there are four key questions   1
data analysts ask themselves. The first is: Who is my audience? Identify the remaining three
questions. Select all that apply. (CO4)

    (a) How can I communicate effectively to my audience?

    (b) What does my audience need to know?

    (c) What does my audience already know?

    (d) All of the Above

1   Which of the following statements accurately describes a key difference between wide and   1
long data? (CO4)

    (a) Every wide data subject has multiple columns. Every long data subject has data in a single column.

    (b) Every wide data subject has a single column that holds the values of subject attributes. Every long data subject has multiple columns.

(c) Wide data subjects can have data in multiple columns. Long data subjects can have multiple rows that hold the values of subject attributes.

(d) Wide data subjects can have multiple rows that hold the values of subject attributes. Long data subjects can have data in multiple columns.

1   A data analyst removes personally identifying information from a dataset. What task are they performing? (CO5)   1

(a) Data visualization

(b) Data sorting

(c) Data anonymization

(d) Data collection

1   What is data privacy? (CO5)   1

(a) Searching for or interpreting supporting information

(b) Applying well-founded standards of right and wrong that dictate how data is collected, shared, and used

(c) Providing free access, usage, and sharing of data

(d) Preserving a data subject's information and activity for all data transactions

2. Attempt all parts:-

2.a.	Define Data Analytics and Business Intelligence ? (CO1)	2
2.b.	Give two examples of data visualization tools widely used in industry? (CO2)	2
2.c.	Define hypothesis testing and how is it useful in data analysis? (CO3)	2
2.d.	Define discrete data and continuous data in brief ? (CO4)	2
2.e.	Explain in brief why data importing is done for analytics and also list some useful tools where data importing is performed ? (CO5)	2

SECTION B   30

3. Answer any <u>five</u> of the following:-

3	Explain Data Preprocessing in detail and also describe all steps required to do data cleaning ? (CO1)	6
3	Justify the statement stating with an example "Ability to interpret the data effectively" ? (CO1)	6
3	What is the difference between a formula and a function in spreadsheets, explain with example ? (CO2)	6
3	Discuss the role of artificial intelligence in data analysis and also describe how artificial	6

intelligence will change the future of industry ? (CO2)

3.e.   Discuss the importance of quantitative and qualitative dataset and also explain how data   6
         analytics will process both ? (CO3)

3.f.   Discuss the characteristics of Biased Data in detail with example ? (CO4)   6

3.g.   What precautions should we consider while collecting secondary data. Discuss in brief ?   6
         (CO5)

<center>SECTION C   50</center>

4. Answer any <u>one</u> of the following:-

4   What are the different types of thinking that are involved in Data Analytics ? (CO1)   10

4   Discuss the role of data analytics in digital Marketing and also state the analysis challenges ?   10
         (CO1)

5. Answer any <u>one</u> of the following:-

5   Explain the steps involved in planning a data visualization tool in detail ? (CO2)   10

5   Explain in detail how to explore the data for patterns with an example ? (CO2)   10

6. Answer any <u>one</u> of the following:-

6   Illustrate 5 different ways in which cell references are used in spreadsheets ? (CO3)   10

6   What is the use of group by and order by in SQL for data analysis ? (CO3)   10

7. Answer any <u>one</u> of the following:-

7   Discuss and differentiate between structured, unstructured and semi-structured data in detail   10
         with examples ? (CO4)

7   Discuss the Entity Relationship Diagram in detail with an example and also explain types of   10
         attributes ?(CO4)

8. Answer any <u>one</u> of the following:-

8   How are primary and foreign key related explain with an example and also discuss their   10
         importance within a database ? (CO5)

8   Discuss Sorting and Filtering in SQL and also discuss how do they differ within a   10
         spreadsheet ? (CO5)