



MADHYA PRADESH BHOJ (OPEN) UNIVERSITY, BHOPAL

e/; in'k Hkk t ¼eDr½ fo'ofok|ky;] Hkkiky

Accredited with "A" Grade by NAAC

DIPLOMA IN DATA SCIENCE (SESSION 2024-25) (June-July)

SUBJECT: DDS-1: FOUNDATION OF DATA SCIENCE

ASSIGNMENT QUESTION PAPER- FIRST

MAXIMUM MARKS: 30

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- 01- I Hk i'u Lo; dh gLrfyfi e gy djuk vfuok; gA
- 02- fo'ofok|ky; }kjk ink; l=h; mRrjifLrdkvk e gh l=h; i'ui= gy djuk vfuok; gA
- 03- l=h; dk; mRrjifLrdk d iFke i"B dk lko/kkuhiod ijk Hkj vkj mle mlh fo"K; dk i'ui= gy dj tk mRrjifLrdk d iFke i"B ij vfdr fd;k gA
- 04- l=h; dk; mRrjifLrdk viu v/;;u dUn ij tek dj mldh ikorh vo'; iklr djA

Note: All Questions are compulsory. Each question carries equal marks.

1. Explain about the concept of Probability and its applications.
2. What is data Analysis? Why python is used for data analysis?
3. What is python? Explain about python libraries?
4. Illustrate Data cleaning process.
5. Explain about Using Spark SQL Commands?



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SUBJECT: DDS-1: FOUNDATION OF DATA SCIENCE

ASSIGNMENT QUESTION PAPER- SECOND

MAXIMUM MARKS: 30

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- 04- l=h; dk; mRrjifLrdk viu v/;;u dUn ij tek dj mldh ikorh vo'; iklr djA

Note: All Questions are compulsory. Each question carries equal marks.

1. Explain the building blocks of Hadoop?
2. Explain about Random sampling and random assignment.
3. Illustrate Basic Statistical descriptions of Data.
4. Explain Joining tables with tableau?
5. Explain about roles and stages in data science project.



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DIPLOMA IN DATA SCIENCE (SESSION 2024-25) (June-July)

SUBJECT DDS-2: PYTHON FOR DATA SCIENCE

ASSIGNMENT QUESTION PAPER- FIRST

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- 04- l=h; dk; mRrjifLrdk viu v/;;u dUn ij tek dj mldh ikorh vo'; iklr djA

Note: All Questions are compulsory. Each question carries equal marks.

1. What is data Analysis? Why python is used for data analysis?
2. Explain about storage and file formats in python?
3. Discuss about input and output files in python?
4. Explain in detail about arrays and its related concepts in python?
5. Explain string manipulation functions in python?



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Note: All Questions are compulsory. Each question carries equal marks.

1. Discuss in detail about Pandas in python with suitable example.
2. Explain modeling libraries in python?
3. Describe about plotting and visualization concepts in python?
4. Discuss about combining and merging data sets in python?
5. What is python? Explain about python libraries?



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DIPLOMA IN DATA SCIENCE (SESSION 2024-25) (June-July)

SUBJECT DDS-3: AI AND MACHINE LEARNING

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04- l=h; dk; mRrjifLrdk viu v/;;u dUn ij tek dj mldh ikorh vo'; iklr djA

Note: All Questions are compulsory. Each question carries equal marks.

1. Differentiate between Content Based Filtering, User based Collaborative filtering and Item Based Collaborative filtering.
2. Explain various steps of developing a machine learning application.
3. Explain the concept of decision tree learning?
4. Explain in detail about Machine Learning concept with examples?
5. Explain about K-Nearest Neighbours classification algorithm.



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04- l=h; dk; mRrjifLrdk viu v/;;u dUn ij tek dj mldh ikorh vo'; iklr djA

Note: All Questions are compulsory. Each question carries equal marks.

1. Define and distinguish between Supervised, Unsupervised learning methods.
2. What is Recommendation System? Explain in detail.
3. Discuss about K-Means clustering algorithm.
4. Explain in detail about Naive Bayesian decision theory.
5. Give an introduction to Artificial Intelligence.