Question Paper

Exam Date & Time: 24-Jun-2022 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

MASTERS IN HOSPITAL ADMINISTRATION DEGREE EXAMINATIONS - JUNE 2022 SUBJECT: MHA 563.1 - HEALTHCARE ANALYTICS BLOCK - VI (REGULARS)

Marks: 60 Duration: 180 mins.

Answer all the questions.

Use examples/case studies/block diagrams wherever necessary.

| 1) | Describe the different data types in python programming language. | (5) |
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| 2) | Explain looping statement in Python with an example. | (5) |
| 3) | Explain the significance of database management system in hospital administration. | (5) |
| 4) | Discuss creation of a table with an example. | (5) |
| 5) | What is Analytics? Explain in the context of healthcare domain. (2+3 = 5 marks) | (5) |
| 6) | Discuss about clinical data warehouse with a neat block diagram. | (5) |
| 7) | Explain the need for data visualization in healthcare sector. | (5) |
| 8) | List the classification of visualizations. Explain any two classifications. $(1+4=5 \text{ marks})$ | (5) |
| 9) | What is Supervised and Unsupervised learning? Explain its relevance in the healthcare analytics. $(2+3=5 \text{ marks})$ | (5) |
| 10) | What is an Artificial Neural Network? Distinguish the biological and artificial neural network. $(1+4=5 \text{ marks})$ | (5) |
| 11) | Discuss the applications of clustering in different fields. | (5) |
| 12) | What is Big Data? List the major challenges of Big Data. (1+4 = 5 marks) | (5) |

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