NAVRACHANA UNIVERSITY
a UGC recognized University

School:	School of Engineering and Technology
Program:	BTech-Information Technology
Year: 4th	**Semester:** 7th
Examination:	End Semester Examination
Examination year:	December - 2021

Course Code: IT407   **Course Name:** Industrial Internet of Things

Date: 08/12/2021   **Marks:** 40

Time: 11:30 AM to 1:30 PM   **Total Pages:** 1

Instructions for students:

1. This question paper consists of five main questions with their related sub-questions
2. Write answers for questions belonging to same question/sub-question together. Do not answer questions haphazardly
3. Make assumptions wherever required
4. Manage time effectively during examination so that paper is completed in specified duration

Q 1. [A]	Attempt the following questions: [1 mark each]	CO	BTL	(5)
1.	_____ media is unstructured data. a. Spreadsheet b. Numbers c. Audio d. String	3	1,2,3	1
2.	_____ is a use case of IoT in healthcare. a. Remote health monitoring b. Pill reading c. Physical presence of doctor d. None of the above	2,4	1,2,3,4	1
3.	Tick the challenges to managing data in IIoT context. a. Volume b. Veracity c. Slow d. All of the above	1	1,2	1
4.	In manufacturing terminology, KPI stands for _____. a. Key Product Insights b. Key Performance Indicators c. Key Product indicators d. Key Performance Indents	2	1,2	1
5.	_____ form of analysis is used for primarily determining finding RUL of a product. a. Prescriptive b. Predictive c. Prognostic d. All options are correct	2	1,2	1
Q 1. [B]	**Define the following terms (Any 5): [1 mark each]**			**(5)**
1.	Confidentiality in IIoT security	1,2	1,2	1
2.	Big Data	3	1,2	1
3.	Firewall	3	1,2	1
4.	Data at rest	3	1,2	1
5.	User Experience	1,2	1,2	1
6.	Access Control List	1,2,3	1,2	1
Q 2.	**Short answer questions [Any 5]: [2 marks each]**			**(10)**
1.	Explain the classification of machine learning approaches.	2,3	1,2	2
2.	What is a smart grid? Explain.	4	1,2,3	2
3.	What IIoT technologies are used in chemical industries for manufacturing?	4	1,2,3	2
4.	What is the general framework of IIoT analytics? Explain.	2	1,2	2
5.	What is an anomaly? Explain.	2	1,2	2
6.	What is prescriptive analysis? Explain.	2,3	1,2	2
Q 3.	**Answer in detail [Any 2]: [10 marks each]**			**(20)**
1.	What is neural network? Explain how a horse is differentiated from a camel using neural network.	3,4	1,2,3	10
2.	How is security deployed for IIoT scenario using DiD strategy?	4	1,2,3	10
3.	Explain how IIoT concepts are implemented for factory and assembly line and how quality control is achieved through IIoT.	4	1,2,3	10

---**End of Question Paper**---

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