

Q4. One of the following point does not belongs to Information revolution driving factor

- a. information-based occupations
- b. Cheap personal computers
- c. the Internet
- d. cheap analog devices.

Q5. Programmable logic refers to a general class of devices which can be configured to perform a variety of logic functions.

- a. Fixed number of logic functions.
- b. variety of logic functions.
- c. Limited logic functions
- d. none of these

Q6. _____ serves to enhance not just the mobile device experience but the entirety of the communications tech environment.

- a. 1G technology
- b. 3G technology
- c. 5G technology
- d. none of these

Q7. An important facet of HCI is user satisfaction "Because human-computer interaction studies a _____

- a. Machine to machine communication
- b human and a machine in communication
- c. Human to human communication
- d. none of these

Q8. _____ refers to the notion of layering relevant information into our vision of the world.

- a. Data Science
- b IOT
- c. Augmented reality
- d. none of these

Q9. _____ differs from neuro modulation in that it allows for bidirectional information flow.

- a. Brain Computer Interface
- b Machine to Machine interface
- c. human to machine interface
- d. none of these

Q10. _____ are used for speech recognition and synthesizing systems.

- a. Chat boats
- b Voice user interfaces (VUI)
- c. signal interface
- d. none of these

Part- I

Answer the following Questions Each question Carry 1 mark.

- Q1. Mention another name for continuing development of existing technology and Define it ?
- Q2. What is Revolution of Technology? Specify any two of them?
- Q3. Mention and define the devices which are once manufactured, their functions cannot be changed. ?
- Q4. Mention and Define the computing that Combined with IoT and AI technologies?
- Q5. What is Cloud repatriation. explain in brief?

Part- II

Answer the following Questions Each question Carry 1 mark.

- Q1. Smart devices will continue to evolve to work better together. These machines will share data _____
- a. Manually
c. Automatically
b. Mechanically
d. none of these
- Q2 The Fourth revolution In IR is also called _____ because it will be brought about by using new knowledge in the fields of ICT, AI, etc.
- a. Digital revolution
c. Analog Revolution
b. smart revolution
d. none of these
- Q3. This revolution was sparked by the increasing awareness that the Earth is not renewable and that farms could not keep expanding outward and the land has to be used efficiently.
- _____
- a. First Agriculture Revolution
c. Third Agriculture Revolution
b. Second Agriculture Revolution
d. Fourth Agriculture Revolution

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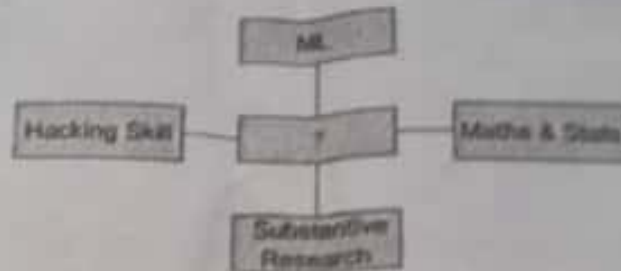


Part I: Choose the best answer and give answer on the space provided. (1 point each).

1. Which one of the following is true about characteristics of Big Data variety?
 - A. Represents the amount of data generated, stored and operated within the system.
 - B. Represents the multiplication of the types of data managed by an information system.
 - C. Represents the frequency at which data is generated, captured, and shared.
 - D. Represent the level of quality, accuracy and uncertainty of data and data sources.
2. In Big-data value chain semantic analysis reside in which high level activities?
 - A. Data Acquisition
 - B. Data analysis
 - C. Data curation
 - D. Data storage
3. In which timeline of agricultural revolution new fertilizers were introduced?
 - A. First
 - B. Second
 - C. Third
 - D. Fourth
4. _____ provides additional information about a specific set of data since it deals about "data about data"?
 - A. Big data
 - B. DBMS
 - C. Meta data
 - D. Data warehouse
5. It is the type of data value chain, which is deals about the process of gathering, filtering, and cleaning data before it is put in a data warehouse or any other storage
 - A. Data Analysis
 - B. Data Curation
 - C. Data Acquisition
 - D. Data Storage
 - E. Data usage
6. _____ is the characteristics of big data which is described about more diversified data, including like structured, semi-structured, and unstructured.
 - A. Volume
 - B. Velocity
 - C. Variety
 - D. Veracity
 - E. Value
7. The ETL (data extract, transform, and load) operations might include modifying the incoming data to format it, categorizing and labelling data, filtering out unneeded or bad data. This operation may take place under _____ Big data life Cycle?
 - A. Persisting the data in storage
 - B. Computing and Analyzing data
 - C. Ingesting data into the system
 - D. Visualizing the results



- Answer the following MCQ's and fill in the blanks
1. Write at least 3 Use cases of big data. *for Customer Segment for Revenue for Brand*
 2. Write 3 major Characteristics of big data. *Volume, Velocity, Variety*
 3. Data Science is about finding patterns in data, through analysis, and make future predictions.
 4. MongoDB Big Data tool is optimized to store documents.
 5. Give examples like JSON and XML forms of semi-structured data. *XML, CSV, JSON*
 6. What would be more appropriate to be replaced with question mark in the following figure?



7. _____ manages all the services and supporting infrastructure off-site over the internet and shares it across multiple users.
A. Public cloud B. Private cloud C. Hybrid cloud D. None of above
8. 5G is the next generation of _____ communications.
A. Wireless B. Wired C. Both of above D. IoT
9. Which of the following are correct component for datascience?
A. Data Engineering B. Advanced Computing C. Domain expertise D. All of the above
10. Which of the following is not a part of data science process?
A. Discovery B. Model Planning C. Communication Building D. Operationalize
11. Which of the following are the Data Sources in data science?
A. Structured B. UnStructured C. Both A and B D. None of the above
12. Which of the following is not an application for data science?
A. Recommendation Systems B. Image & Speech Recognition C. Online Price Comparison D. Privacy Checker
13. Point out the correct statement.
A. Raw data is original source of data B. Preprocessed data is original source of data
C. Raw data is the data obtained after processing steps D. None of the above
14. Which of the following is one of the key data science skills?
A. Statistics B. Machine Learning C. Data Visualization D. All of the above
15. Which of the following step is performed by data scientist after acquiring the data?
A. Data Cleaning B. Data Integration C. Data Replication D. All of the above
16. Which one of the following data is unstructured Data?
A. Excel files. B. XML C. Video files D. All the above

- ① Communicates
② Extends and generalizes
③ To Identify, clarify requirement
④ Arrange System requirement
⑤



17. Which of the following are the Benefits of Big Data Processing?
 A. Businesses can utilize outside intelligence while taking decisions.
 B. Better operational efficiency C. Improve customer service D. All of the above
18. Which of the following is true about big data?
 A. Big data can be processed using traditional techniques
 B. Big data refers to data sets that are at least a petabyte in size
 C. Big data analysis does not involve reporting and data mining techniques
 D. Big data has low velocity meaning that it is generated slowly
19. Transaction data of the bank is?
 A. structured data B. unstructured data C. Both A and B D. None of the above
20. In how many forms BigData could be found?
 A. 2 B. 3 C. 4 D. 5
21. Which of the following is the most important language for Data Science?
 A) Java B) Ruby C) R D) Python ✓
22. The overall percentage of the world's total data has been created just within the past two years is?
 A. 80% B. 85% C. 90% D. 95%
23. ACID Stands for Atomicity, Consistency Isolation and Durability
24. Which phase of industrial revolution is also known as Digital Revolution?
 A. First B. Second C. Third D. Fourth
25. Which is promising Emerging Technology application, in which we can speak or direct our computers to perform without use of a mouse or keyboard.
 A. 5G B. Cloud C. No-Touch computing D. All of the above

Answer below

- | | | |
|--------------------------------|--------------|---|
| 1. _____ | 11. <u>C</u> | 21. <u>D</u> |
| 2. _____ | 12. <u>D</u> | 22. <u>C</u> |
| 3. <u>Data Science</u> | 13. <u>A</u> | 23. <u>Atomicity Consistency Isolation and Durability</u> |
| 4. <u>Managed BD</u> | 14. <u>D</u> | 24. <u>C</u> |
| 5. <u>Email, Text, Product</u> | 15. <u>B</u> | 25. <u>C</u> |
| 6. <u>Data Science</u> | 16. <u>C</u> | |
| 7. <u>D</u> | 17. <u>D</u> | |
| 8. <u>X</u> | 18. <u>B</u> | |
| 9. <u>D</u> | 19. <u>A</u> | |
| 10. <u>A</u> | 20. <u>B</u> | |

- ① for customer sentiment
 ② for Behavioral Analytics
 ③ for fraud Detection

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8. Which one is an example of structured data?

- ☒ A. Excel files
- B. No-SQL databases

- C. Audio
- D. Natural language text

9. Which one of the following is a dedicated ingestion tools that can add data to a big data system?

- A. Elastic Stack
- ☒ B. Apache Sqoop

- C. MapReduce
- D. Notebook

10. Which one is the first intelligent humanoid robot, was built in 1972?

- A. Eliza

☒ B. WABOT-1

- C. Amazon Echo
- D. Sophia

11. Which of the following AI machine that store memories or past experiences for future actions?

- ☒ A. Self-driving cars
- B. IBM's Deep Blue system

- C. Google's AlphaGO
- D. All

Part II: Write the appropriate answers on the space provided (1pt each)

12. [] is a type of emerging technology that refers to the notion of layering relevant information into our vision of the world.

13. Data Type is an attribute of data which tells the compiler or interpreter how the programmer intends to use the data.

Part III: Write short answer for the following question.

14. List and explain the basic steps of data processing cycle with examples? 2pts.

Input → processing → output

Input → processing → output