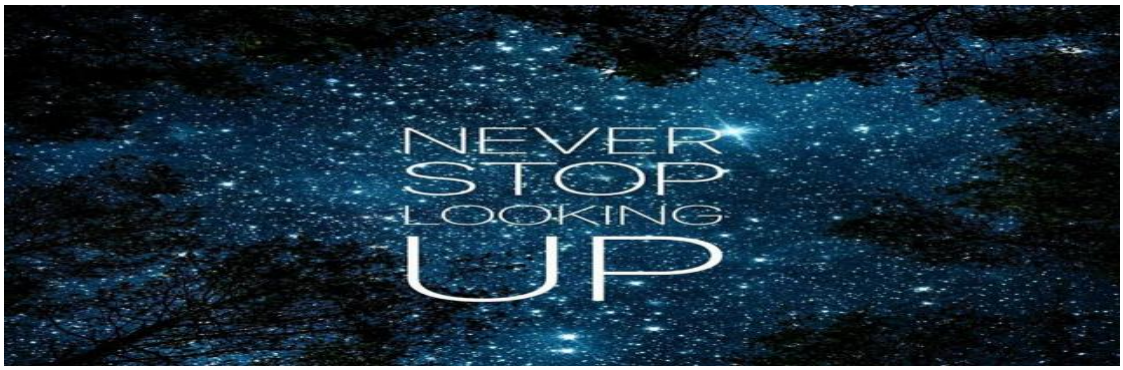


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Emerging Technologies Final Exam – Addis Ababa University

I. Choose the best answer

1. What is the role of data for emerging technologies?

A. Determine the future of science and technology

B. Reshaping the world and introducing a paradigm shift

C. Defines the future of economy

D. All of the above

2. Which industrial revolution can be called technological revolution?

A. First industrial revolution

B. Second industrial revolution

C. Third industrial revolution

D. Fourth industrial revolution

3. Which emerging technology enabling devices that can store information

A. Memory

B. Microprocessor

C. Logic devices

D. Networks

4. One of the following can't be considered as emerging technologies

A. Block chain

B. database management system

C. Big data

D. Digital twins

5. which of the following is regarded as smart revolution?

A. Information revolution

B. Agriculture revolution

C. Industrial revolution (Second revolution)

D. Knowledge revolution

6. Which of the following factor is not considered as a driver of information revolution?

A. The growth of information-based occupation

B. The invention artificial intelligence

C. The widespread of cheap personal computers

D. The advent of the internet

7. The research and development activities in IoT and AI can be examples of _____ industry

A. Primary Industry

B. Tertiary Industry

C. Quaternary Industry

D. Secondary Industry

8. What started the first Industrial Revolution?

A. When agricultural societies became more industrialized and urban

B. Transition to new manufacturing processes going from hand production methods to machine

C. The increasing use of steam power

D. All of the above

9. The Bidirectional information flow between a human brain and a machine is referred to as

A. Neuro – modulation

B. Social computing

C. Human machine Interface

D. Brain computer Interface

10. One of the following is not the use of the programmable logic devices?

A. Signal Processing

B. Data Communication

C. Data Display

D. Provide specific functionality

11. It is a sequence of activities involved in data transformation from its row form to information

A. Data collection

B. Data input

C. Data processing

D. Data output

12. Which of the following statement is not correct?

A. Unstructured data are straightforward for analysis

B. Big data acquisition require flexible and dynamic data structures

C. Semi-structured data contains tags and markers

D. Data type describe how we intend to use the data in the program

13. What are the different activities of Big-data life cycle?

A. Ingesting data, persisting data, computing and analyzing data, and visualizing results

B. Acquisition, analysis, curation, storage, and usage

C. Veracity, variability, and value

D. Input, processing, and output

14. Big Data is characterized by:

A. Volume

B. Velocity

C. Variety

D. All of the above

15. Which of the following type of data is currently the most voluminous (largest) of the global data stock?

A. Semi-structured

B. Structured

C. Unstructured

D. Can’t be determined for sure

16. Which of the following is wrong about data type?

A. A data type is an attribute of data in integers, Booleans, and floating-point number

B. A data type is about the structure of data such as structured, unstructured, and semi-structured

C. A data type is the structure of the data for a computer programming

D. A data type is data about data in metadata

17. What is the purpose of data science?

A. Extract knowledge and insight by finding patterns with data

B. Explore, sort and analyze mega-data from various sources

C. Transform business data into assets that help organizations improve revenue and reduce cost

D. All of the above

18. With respect to "commuting and analyzing Big data", one of the following tool is different

A. Apache Storm

B. Apache Hadoop's Map Reduce

C. Apache Flink

D. Apache Spark

19. Which one of the following is not true?

A. Data is a raw facts and figures

B. Information is a processed data

C. Data science is simply analyzing data

D. Metadata is data about data

20. A representation of facts, concepts, or instructions in a formalized manner, which should process by human or electronic machine

A. Data

B. Knowledge

C. Information

D. Wisdom

21. _____ is a branch of computer science by which we can create intelligence machine that can behave like a human

A. Block Chain

B. Data Science

C. Internet of Things

D. Artificial Intelligence

22. AII are correct about artificial intelligence except _____

A. Perform knowledge intensive-task

B. Has feeling and emotions

C. Limited for trained work

D. Human dependency on machine

23. which of the following are teachers today using to enhance learning?

A. Giving more homework

B. Providing students with Web 3.0

C. tools to complete assignments

D. increasing the number of field trips giving more

24. _____ is anything that can perceive its environment through sensory and acts upon environment through effectors

A. API

B. Agent

C. Intelligence

D. Expert System

25. Machine perception is achieved by _____

A. Sensors

B. Effectors/Actuators

C. Machine Learning

D. None of the above

26. An expert system differs from a database program in that only an expert system

A. Contains declarative knowledge

B. Contains procedural knowledge

C. Features the retrieval of stored information

D. Expects users to draw their own conclusions

27. Which of the following is not an advantage of Artificial Intelligence

A. High Accuracy with fewer errors

B. Increase dependence on machines

C. Useful as a public utility

D. High reliability

28. One of the following is not the application of Al

A. Chatbot

B. Product recommendation

C. Travel arrangement

D. None

29. What type of Artificial Intelligence which is an ability of machine to learn without being explicitly programmed?

A. Artificial Intelligence

B. Machine Learning

C. Deep Learning

D. A and B

30. Artificial Intelligence (AI) devices such as Siri (Apple) Alexa (Amazon) Cortana (Microsoft), etc. can be operated by _____

A. Voice recognition

B. Keyboard entry

C. gesture technology

D. touch screen

31. _____ is the networking of smart objects that communicate intelligently in the presence of internet protocol

A Block Chain

B. Data Science

C. Internet of Things

D. Artificial Intelligence

32. One of the following IoT challenges that describe the connected devices communicating over networks exposes users to various kinds of security attack

A. Security

B. Privacy

C. complexity

D. Compliance

33. Which of the following is not IoT features?

A. Human intervention

B. Active engagement

C. Sensors

D. Small device

34. One of the following is disadvantage of IoT System?

A. Waste Reduction

B. Device interoperability

C. Use of Optimized Technology

D. Enhanced Data Collection

35. IoT devices in the form of wearable's like Fitbit, smart eyeglass and health monitors makes life much easier. This is an application of loT in

A. Retail

B. Consumer use

C. Smart City

D. Utilities

44. Suppose you have a cell-phone app that is designed in such a way that when camera is focused on a historical monument, it displays a digital information about the monument. Which technology do you think is this app using?

A. Augmented Reality

B. Augmented Virtuality

C. Virtual Reality

D. Mixed Reality

45. Which one of the following is not true?

A. Virtual Reality is immersive

B. Augmented Reality uses the existing environment and overlays new information on top of it

C. Augmented Reality is also called a computer-simulated Reality

D. A & C

46. _____ In Augmented reality architecture makes the user interface available in browser?

A. Client tier

B. Server Tier

C. Mid Tier

D. Data Tier

47. One of the following statements is not correct about virtual reality

A. A new world is created out of the mixt of virtual and physical objects

B. uses head-mounted devices to display a digital world of imagery and sound

C. Completely separates the user from its real environment

D. None of the above

48. Which of the following is not immersive technologies?

A. Virtual reality

B. Real environment

C. Augmented reality

D. Virtual environment

49. One of the following is true about Virtual reality?

A. Google class is an example of virtual reality device

B. Smart phone are used in virtual reality

C. It requires devices like Head mounted display

D. Users can interact with real environment objects

50. A type of VR environment in which subjects are visually isolated from the real environment

A. Immersive

B. Semi-immersive

C. Non immersive

D. Augmented