BRAINWARE UNIVERSITY

Term End Examination 2022
Programme – B.Sc.(ANCS)-Hons-2020
Course Name – Introduction to Modern Technologies
Course Code - BNCSD501C
(Semester V)

Full Marks : 60   **Time : 2:30 Hours**

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)   1 x 15=15

1. *Choose the correct alternative from the following :*

(i) Trace the learning algorithms where ML is a field of AI consist

   a) Improve their performance   b) At executing some task
   c) Over time with experience   d) All of the mentioned

(ii) Relate Weak AI is

   a) a set of computer programs that produce   b) the study of mental faculties through the
   output that would be considered to reflect   use of mental models implemented on a
   intelligence if it were generated by humans computer
   c) the embodiment of human intellectual   d)
   capabilities within a computer   All of the Mentioned

(iii) Review Strong Artificial Intelligence is

   a)   b) a set of computer programs that produce
   the embodiment of human intellectual   output that would be considered to reflect
   capabilities within a computer   intelligence if it were generated by humans

   c) the study of mental faculties through the d)
   use of mental models implemented on a   All of the Mentioned
   computer

(iv) Explain what is tokenization

   a) Creating a set of vocabularies   b) Breaking sentences into words
   c) Removing stop-words   d) All of the Mentioned

(v) Determine which of the following is a disadvantage of decision trees

   a) Factor Analysis   b) Decision trees are robust to outliers
   c) Decision trees are prone to be overfit   d) None of the Mentioned

(vi) Choose the correct order for preprocessing in Natural Language Processing

   a) Tokenization -> Stemming -> Lemmatization b) Lemmatization -> Tokenization -> Stemming
   c) Stemming -> Tokenization -> Lemmatization d) None of the Mentioned

(vii) Test, the term used for a blockchain splits

   a) A Merger   b) A Fork
   c) A Division   d) None of the Mentioned

(viii) Connect the keyword, UTXO stands for

    a) Unspent Transaction Office   b) United Transaction Office

    c) United Transaction Output   d) Unspent Transaction Output

(ix) Predict which of the following topology is used for ZigBee Smart Energy

    a) Bus Topology   b) Ring Topology

    c) Star Topology   d) Any Topology

(x) Justify which of the following protocols does not exist at the data link layer

    a) ZigBee Smart Energy   b) LoRaWAN

    c) WirelessHART   d) Secure MQTT

(xi) Write Augmented reality refers to

    a) Our increased ability to better understand our situations thanks to easy internet search   b) How we lose track of time when we are engrossed in video games

    c) Digital overlays of information onto a screen that is showing the real world   d) Increased capacities for the disabled thanks to digital technologies

(xii) Propose, which of the following algorithm is used in AR

    a) Markov   b) Ransac

    c) PCA   d) Apriori

(xiii) Recognize, which search method takes less memory

    a) Depth-First Search   b) Breadth-First search

    c) Linear Search   d) Optimal search

(xiv) Match the correct word to fits in the statement, ___ is a state that is better than all its neighboring states but is not better than some other states further away

    a) Plateau   b) Local Maximum

    c) Global Maximum   d) All of the Mentioned

(xv) Tell, what is the expansion if PEAS in task environment

    a) Peer, Environment, Actuators, Sense   b) Perceiving, Environment, Actuators, Sensors

    c) Performance, Environment, Actuators, Sensors   d) None of the Mentioned

Group-B
(Short Answer Type Questions)   3 x 5=15

2. Cite the main Features of the Hill Climbing Algorithm   (3)
3. Illustrate why is Natural Language Processing Important   (3)
4. Explain why to use Unsupervised Learning   (3)
5. Express something about Blockchain Hashing   (3)

OR

  Create a note on Augmented Reality Relies On Artificial Intelligence   (3)
6. Explain what is Blockchain   (3)

OR

  Explain three different types of probable attacks in the Bitcoin system   (3)

Group-C
(Long Answer Type Questions)   5 x 6=30

7. Visualize the Tic-Tac-Toe game tree with an example and diagram   (5)
8. Organize Six Key Characteristics of the Internet of Things   (5)
9. Discuss the Life cycle of Machine learning   (5)
10. Construct how Natural Language Processing Work with a diagram   (5)
11. Editorialize some notes on the security threats of IoT in the Industry   (5)

OR

  Justify the use of Python in the IoT Backend   (5)
12. Analyze the Functional Components of IoT   (5)

OR

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