COMPUTER COMPETITIVE CHAPTER 14 -ENG PART-1- INTRODUCTION TO AI

Total points 50/50 ❓

STUDENT NAME *

VIVA

✓ **1. What does AI stand for?** *   1/1

○ o a) Automated Intelligence

◉ o b) Artificial Intelligence   ✓

○ o c) Advanced Information

○ o d) Analytical Integration

✓ **2. Which of the following is considered the "father of AI"?** *   1/1

○ o a) Alan Turing

◉ o b) John McCarthy   ✓

○ o c) Marvin Minsky

○ o d) Geoffrey Hinton

✓ 3. What is the primary goal of AI? * 1/1

○ o a) To make computers faster

● o b) To enable machines to think and learn like humans ✓

○ o c) To create new programming languages

○ o d) To replace human jobs

✓ 4. Which test is used to determine if a machine can exhibit intelligent behavior equivalent to, or indistinguishable from, that of a human? *1/1

● o a) Turing Test ✓

○ o b) ELIZA Test

○ o c) Lovelace Test

○ o d) AlphaGo Test

✓ 5. What is the branch of AI that allows computers to learn from data without being explicitly programmed? *1/1

○ a) Robotics

○ b) Natural Language Processing

● c) Machine Learning ✓

○ d) Expert Systems

✓ **6. Which type of AI focuses on performing a specific task, like playing chess or recommending products?** *1/1

○ a) Strong AI

○ b) General AI

◉ c) Narrow AI ✓

○ d) Super AI

✓ **7. What is a neural network inspired by? *** 1/1

○ a) Computer circuits

◉ b) Human brain structure ✓

○ c) Animal behavior

○ d) Geological formations

✓ **8. Deep Learning is a subset of which field? *** 1/1

○ a) Computer circuits

◉ b) Human brain structure ✓

○ c) Animal behavior

○ d) Geological formations

9. Deep Learning is a subset of which field? * 1/1

○ a) Robotics

○ b) Computer Vision

◉ c) Machine Learning ✓

○ d) Expert Systems

10. Which AI technique involves training a computer to make decisions by trying different actions and learning from the rewards or penalties received? *1/1

○ a) Supervised Learning

○ b) Unsupervised Learning

◉ c) Reinforcement Learning ✓

○ d) Semi-supervised Learning

11. What is NLP? * 1/1

◉ a) Natural Language Processing ✓

○ b) Neural Language Program

○ c) New Logical Programming

○ d) Network Layer Protocol

12. Which AI application helps in understanding and generating human language? *1/1

○ a) Computer Vision

○ b) Robotics

○ c) Expert Systems

● d) Natural Language Processing (NLP) ✓

13. What is Computer Vision primarily concerned with? * 1/1

○ a) Making computers talk

● b) Enabling computers to "see" and interpret images and videos ✓

○ c) Controlling robot movements

○ d) Analyzing large datasets

14. Which of these is a common application of AI in daily life? * 1/1

○ a) Calculators

● b) Smartphones with voice assistants ✓

○ c) Basic word processors

○ d) Digital clocks

15. Which algorithm is commonly used for classification tasks in machine learning? *1/1

- ○ a) Quick Sort
- ○ b) Linear Regression
- ⦿ c) Decision Tree ✓
- ○ d) Binary Search

16. What is a "dataset" in the context of AI? * 1/1

- ○ a) A programming language
- ⦿ b) A collection of data used to train AI models ✓
- ○ c) A type of computer hardware
- ○ d) A software application

17. What is the term for an AI system that can explain its decisions and reasoning? *1/1

- ○ a) Black Box AI
- ○ b) Transparent AI
- ⦿ c) Explainable AI (XAI) ✓
- ○ d) Static AI

✓ **18. Which concept in AI deals with creating machines that mimic human** *1/1
movement and dexterity?

○ a) Computer Vision

◉ b) Robotics ✓

○ c) Expert Systems

○ d) Machine Learning

✓ **19. What is a chatbot?** * 1/1

○ a) A robot that cleans houses

◉ b) An AI program designed to simulate human conversation ✓

○ c) A type of computer virus

○ d) A specialized camera

✓ **20. The goal of AI to achieve human-level intelligence across various** *1/1
tasks is known as:

○ a) Narrow AI

◉ b) Strong AI / Artificial General Intelligence (AGI) ✓

○ c) Weak AI

○ d) Limited AI

✓ **21. Which of the following is an example of an AI-powered personal assistant?** *1/1

○ a) Microsoft Word

○ b) Adobe Photoshop

◉ c) Siri ✓

○ d) Google Chrome

✓ **22. What is 'training data' in machine learning?** * 1/1

○ a) Data generated by the AI model

◉ b) Data used to train the AI model ✓

○ c) Data used to test the AI model

○ d) Data that the AI model outputs

✓ **23. In Supervised Learning, what does the model learn from?** * 1/1

○ a) Unlabeled data

◉ b) Data with input-output pairs (labeled data) ✓

○ c) Rewards and penalties

○ d) Random data

?

✓ **24. Which type of learning deals with unlabeled data, finding patterns or** *1/1
structures within it?

○ a) Supervised Learning

◉ b) Unsupervised Learning ✓

○ c) Reinforcement Learning

○ d) Semi-supervised Learning

✓ **25.What is a "feature" in the context of machine learning?** * 1/1

○ a) A bug in the code

◉ b) A measurable property or characteristic of the data ✓

○ c) A type of neural network layer

○ d) The output of the model

✓ **26. What is the purpose of a "loss function" in machine learning?** * 1/1

○ a) To increase the model's accuracy

◉ b) To measure how well the model's predictions match the actual values ✓

○ c) To make the model forget irrelevant data

○ d) To speed up the training process

27. What is 'overfitting' in machine learning? * 1/1

○ a) When the model performs well on new, unseen data

◉ b) When the model learns the training data too well, including noise, and performs poorly on new data ✓

○ c) When the model is too simple to capture the underlying patterns

○ d) When the model takes too long to train

28.Which term refers to the ability of an AI system to understand and generate human-like conversation? *1/1

○ a) Image Recognition

○ b) Speech Synthesis

◉ c) Natural Language Understanding (NLU) ✓

○ d) Pattern Matching

29. What is a 'neuron' in an artificial neural network? * 1/1

○ a) A type of database

◉ b) A computational unit that receives inputs, processes them, and produces an output ✓

○ c) A programming error

○ d) A sensory input device

✓ **30. What is the earliest form of AI, characterized by rule-based systems** *1/1
and logical reasoning?

◉ a) Symbolic AI ✓

○ b) Connectionist AI

○ c) Statistical AI

○ d) Behavior-based AI

✓ **31.Which programming language is often associated with AI** *1/1
development due to its symbolic processing capabilities?

○ a) C++

○ b) Java

◉ c) LISP ✓

○ d) SQL

✓ **32. What is a "robot" in the context of AI and robotics?** * 1/1

○ a) Any computer program

◉ b) A machine capable of carrying out a complex series of actions automatically ✓

○ c) A type of software virus

○ d) A purely mechanical device

33. Which of the following is not a common application area of AI? * 1/1

○ a) Healthcare

○ b) Financial Services

○ c) Weather Forecasting

◉ d) Traditional Calculator Manufacturing ✓

34. What is a "chatbot" often used for? * 1/1

○ a) Playing video games

◉ b) Customer service and information retrieval ✓

○ c) Complex scientific calculations

○ d) Creating music

35. What is 'sentiment analysis'? * 1/1

○ a) Analyzing financial market trends

◉ b) Determining the emotional tone or opinion expressed in a piece of text ✓

○ c) Detecting fake images

○ d) Predicting weather patterns

36. Which technology allows AI systems to convert written text into spoken words? *1/1

- ○ a) Speech Recognition
- ● b) Text-to-Speech (TTS) ✓
- ○ c) Natural Language Understanding
- ○ d) Voice Command

37. What is 'Computer Vision' mainly used for in self-driving cars? * 1/1

- ○ a) Generating driving routes
- ● b) Recognizing traffic signs, pedestrians, and other vehicles ✓
- ○ c) Controlling the car's speed
- ○ d) Playing music

38. What is an 'Expert System' in AI? * 1/1

- ● a) A system that learns from human experts to solve complex problems ✓
- ○ b) A system that generates random solutions
- ○ c) A simple calculator
- ○ d) A system that only understands numbers

✓ **39. Which type of machine learning involves clustering data points into groups based on similarity?** *1/1

○ a) Classification

○ b) Regression

◉ c) Clustering (Unsupervised Learning)   ✓

○ d) Reinforcement Learning

✓ **40. What is a 'training set' in machine learning?** * 1/1

○ a) The complete dataset available

◉ b) The portion of the dataset used to train the model   ✓

○ c) The portion of the dataset used to evaluate the model

○ d) The unused portion of the data

✓ **41. What is 'validation set' used for?** * 1/1

○ a) To train the model initially

◉ b) To fine-tune the model's hyperparameters and prevent overfitting   ✓

○ c) To test the final performance of the model

○ d) To preprocess the data

?

42. What is a 'test set' used for? * 1/1

○ a) To train the model

○ b) To tune the model's parameters

◉ c) To evaluate the final performance of the trained model on unseen data ✓

○ d) To gather initial data

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43. What does 'bias' refer to in machine learning? * 1/1

○ a) A preference for a certain programming language

◉ b) The error introduced by approximating a real-world problem, potentially leading to underfitting ✓

○ c) The ability of a model to generalize well

○ d) The speed of the algorithm

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44. What does 'variance' refer to in machine learning? * 1/1

◉ a) The error due to a model's sensitivity to small fluctuations in the training data, leading to overfitting ✓

○ b) The fixed error of the model

○ c) The stability of the model

○ d) The complexity of the algorithm

45. What is the 'Bias-Variance Trade-off' in machine learning? * ✓ 1/1

○ a) A balance between speed and accuracy

◉ b) A situation where decreasing bias increases variance and vice versa ✓

○ c) A choice between using supervised or unsupervised learning

○ d) A method for data preprocessing

46. What is a 'perceptron'? * ✓ 1/1

○ a) A type of sensor for robots

◉ b) The simplest form of a neural network, capable of binary classification ✓

○ c) A complex AI algorithm for natural language processing

○ d) A data storage unit

47. Which of these is a popular open-source machine learning library developed by Google? ✓ *1/1

○ a) PyTorch

◉ b) TensorFlow ✓

○ c) Scikit-learn

○ d) Keras

48. What is 'reinforcement learning' often used for? * 1/1

○ a) Image classification

● b) Training AI to play games or control robots ✓

○ c) Predicting stock prices

○ d) Sentiment analysis

49. Which type of AI deals with the ability of machines to perceive and understand emotions? *1/1

○ a) Emotional Intelligence (EQ-AI)

● b) Affective Computing ✓

○ c) Cognitive AI

○ d) Behavioral AI

50. What is 'A/B testing' in the context of AI? * 1/1

● a) A method to compare two versions of an AI model or strategy to see which ✓
performs better

○ b) A method for training two AI models simultaneously

○ c) A type of data visualization

○ d) A security protocol for AI systems

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