

CLASS- X
Unit Wise Artificial Intelligence (AI-417)
CBT QUESTIONS
(Each Question Carry One Mark)

PART- B

UNIT- 1

INTRODUCTION TO AI

Q.1) All humans have all the _____ intelligences but at different levels.

- a. 7 b. 8 c. 9 d. 10

Ans. c. 9

Q.2) A Category of intelligence relating to the ability to process information on the environment around us is

- a. Musical Intelligence Prepared b. Naturalist Intelligence
c. Interpersonal Intelligence d. Kineasthetic Intelligence

Ans. b. Naturalist Intelligence

Q3. Identify the wrong statement.

- a. A machine is artificially intelligent when it can accomplish tasks by itself – collect data, understand it, analyse it, learn from it, and improve it.
b. Machines become intelligent once they are trained with some information which helps them achieve their tasks
c. AI machines keep updating their knowledge to optimize their output.
d. None of the above

Ans. d. None of the above

Q4. _____ is defined as the ability to perceive the visual world and the relationship of one object with other.

- a. Mathematical Logical Reasoning b. Musical Intelligence
c. Spatial Intelligence d. Linguistic Intelligence

Ans. c. Spatial Intelligence

Q5. _____ is the ability to communicate with others by understanding other people's feelings.

- a. Existential Intelligence b. Naturalist Intelligence
c. Kineasthetic Intelligence d. Interpersonal Intelligence

Ans. d. Interpersonal Intelligence

Q.6)Which of the following statement is wrong?

- a. Machines become intelligent once they are trained with some information which helps them achieve their tasks.
b. AI machines also keep updating their knowledge to optimise their output.
c. Humans become more and more intelligent with time as they gain experiences during their lives.
d. None of the above

Ans. d. None of the above

Q.7)Which of the following are common examples of Voice Assistants?

- a. Alexa b. Cortana c. Siri d. All of the above

Ans. d. All of the above

Q.8)Which of the following is Not AI?

- i. Air Conditioner ii. Automatic Washing Machine iii. Self-Driving Car iv. Smart TV
a. i, ii & iii b. i & ii c. i, ii & iv d. iii & iv

Ans. c. i, ii & iv

Q.9) Which of the following is correct about Data Science?

- a. It is a domain of AI b. It is related to data systems and processes.
c. In this, system collects numerous data, maintains data sets and derives meaning out of them.
d. All of the above

Ans. d. All of the above

Q.10) Amazon's Alexa is a _____

- a. Smart Mobile b. Smart Assistant c. Smart Tablet d. Smart View

Ans. b. Smart Assistant

Q.11) Results based on discriminatory assumptions made while developing algorithm by the developer is called as _____.

- a. AI Ethics b. AI Bias c. Test Data d. Training Data

Ans. b. AI Bias

Q12. Cortana, Siri are common examples of the _____

- a. Antivirus
b. Voice Assistants
c. Operating System
d. Computer Commands

Ans.b. Voice Assistants

Q13. _____ enables software to train itself to perform tasks with vast amounts of data.

- a. Artificial Intelligence b. Deep Learning c. Machine Learning d. None of the above

Ans. b. Deep Learning

Q.14) Which of the following is invalid with regard to Data Privacy?

- a. Allow all permission while installing apps in smart phones can leak data.
b. Denying all permission will allow to install app in smart phone.
c. Use apps which don't make permissions compulsory.
d. Use apps Reliable and Authentic.

Ans. b. Denying all permission will allow to install app in smart phone.

Q.15)Which of the following enable machines to learn by themselves using the provided data and make accurate Predictions/ Decisions?

- a. Artificial Intelligence b. Deep Learning c. Machine Learning d. None of the above

Ans. c. Machine Learning

UNIT-2
AI PROJECT CYCLE

Q.16) You would feed the data into the machine. This is the data with which the machine can be trained. Now, once it is ready, it will predict his next data efficiently. This previous data is known as _____.

- a. Testing Data b. Training Data c. Exploring Data d. All of the above

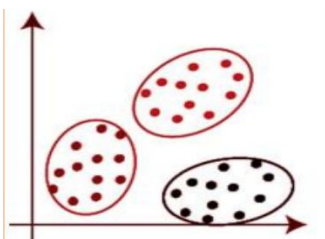
Ans: b. Training Data

Q.17) AI models can be classified as _____.

- a. Learning Based b. Rule Based c. Both a) and b) d. None of the above

Ans: c. Both a) and b)

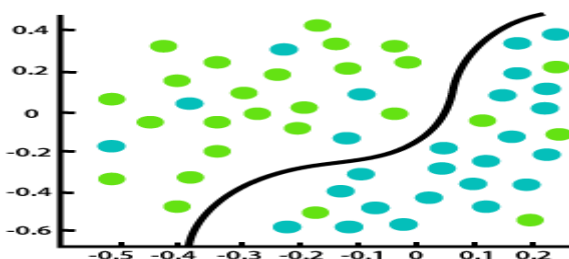
Q.18) Identify the algorithm based on the given graph



- (a) Dimensionality reduction
(b) Classification
(c) Clustering
(d) Regression

Ans: c Clustering

Q.19) Identify the algorithm based on the given graph



- (a) Dimensionality reduction
- (b) Classification
- (c) Clustering
- (d) Regression

Ans: (b) Classification

20.) _____ models work on continuous data.

- a. Classification
- b. Regression
- c. Both a) and b)
- d. None of the above

Ans: b. Regression

21.) The key advantage of _____ are that they are able to extract data features automatically without needing the input of the programmer.

- a. Data Science
- b. Deep Learning
- c. Neural Network
- d. All of the above

Ans: c. Neural Network

22.) _____ refer to the type of data you want to collect.

- a. Data features
- b. Exploring Data
- c. Data Acquisition
- d. All of the above

Ans: a. Data features

23.) _____ helps to determine the nature of the problem.

- a. Who
- b. What
- c. Where
- d. Why

Ans: b. What

24.) _____ refers to AI modelling in which the developer hasn't specified the relationship or patterns in the data.

- a. Learning Based
- b. Rule Based
- c. Decision Tree
- d. None of the above

Ans: a. Learning Based

25.) In a _____ model, the dataset which is fed to the machine is labeled.

- a. Supervised Learning
- b. Unsupervised Learning
- c. Reinforcement Learning
- d. All of the above

Ans: a. Supervised Learning

26. Once the _____ is complete, you now need to test your model on some newly fetched data.

- a. Data Acquisition
- b. Modelling
- c. Data Mining
- d. None of the above

Ans: b. Modelling

27. _____ helps to acquire data for the project.

- a. Problem Scoping
- b. Data Acquisition
- c. Data Exploration
- d. Data Evaluation

Ans: b. Data Acquisition

28. An _____ model works on an unlabeled dataset.

- a. Unsupervised learning
- b. Supervised learning
- c. Reinforcement Learning
- d. All of the above

Ans: a. Unsupervised learning

29 .What are the various parameters which affect the problem _____.

- a. You need to acquire data which will become the base of your project
- b. You go for data acquisition by collecting data from various reliable and authentic sources.
- c. After exploring the patterns, you can decide upon the type of model you would build to achieve the goal.
- d. All of the above

Ans: d. All of the above

30. Templates help us to summarize all the key points into one single Template so that in future, whenever there is a need to look back at the basis of the problem, we can take a look at the _____ and understand the key elements of it.

- a. Problem Solving Template
- b. Problem Statement Template
- c. Problem Arising Template
- d. None of the above

Ans: b. Problem Statement Template

31. Sometimes, you use the internet and try to acquire data for your project from some random websites. Such data might not be authentic as its accuracy cannot be proved. Due to this, it becomes necessary to find a

- _____.
- a. Reliable source
 - b. Random source
 - c. Unauthorize source
 - d. All of the above

Ans: a. Reliable source

32. Data exploration is possible with the use of _____.

- a. Problem Scoping
- b. Data Visualization
- c. Data Features
- d. Web Scraping

Ans: b. Data Visualization

33. AI modelling where the rules are defined by the developer is known as _____.

- a. Rule Based Approach
- b. Learning based Approach
- c. Both a) and b)
- d. None of the above

Ans: a. Rule Based Approach

34. A Neural Network is divided into multiple layers and each layer is further divided into several blocks called _____.

- a. Nodes
- b. Connector
- c. Terminal
- d. All of the above

Ans: a. Nodes

35. In Neural Network, The _____ are the layers in which the whole processing occurs.

- a. Output Layer
- b. Input Layer
- c. Hidden Layer
- d. All of the above

Ans: c. Hidden Layer

36. The last hidden layer passes the final processed data to the _____ which then gives it to the user as the final output.

- a. Output Layer
- b. Input Layer
- c. Hidden Layer
- d. All of the above

Ans: a. Output Layer

37. Choose one of the following statements regarding the unsupervised learning-based model that is false.

- a. We can provide a very large data set.
- b. The algorithm itself analyzes the data set and determines relationships within that data.
- c. The labeled data is fed with some rules by the developers.
- d. lets us make predictions and improve the algorithms on its own.

Ans: c. The labeled data is fed with some rules by the developers.

UNIT-4: DATA SCIENCE

38. What is the main goal of Data Science?

- A) To collect data from different sources
- B) To analyze and interpret data for decision-making
- C) To store data for future use
- D) To visualize data in graphs

Answer: B) To analyze and interpret data for decision-making

39. What does the term 'Big Data' refer to?

- A) Data stored in large databases
- B) Data that is too large or complex to be processed using traditional data-processing techniques
- C) Data that is used for business intelligence
- D) A type of cloud storage

Answer: B) Data that is too large or complex to be processed using traditional data-processing techniques

40. Which of the following formats is used to store data in tabular form and each record consists of one or more fields which are separated by commas?

- a.) pd
- b) doc

- c) xls
- d) csv

Answer:d) csv

41. Which of the following is essential components of data science?

- a. Data Collection, Data Cleaning, Data Analysis
- b. Data Visualization, Data Modeling, Data Deployment
- c. Data Storage, Data Retrieval, Data Deletion
- d. Data Mining, Data Entry, Data Replication

Answer:a. Data Collection, Data Cleaning, Data Analysis

42. What is a not example of Data Science?

- a. Rock, Paper & Scissors
- b. Fraud and Risk Detection
- c. Smart TV
- d. Targeted Advertising

Answer:c. Smart TV

UNIT-5: Computer Vision

Q.43)What is the primary goal of Computer Vision?

- A) To enhance image quality
- B) To interpret and make decisions based on visual data
- C) To store images efficiently
- D) To increase resolution of images

Ans. B) To interpret and make decisions based on visual data

Q.44) What does a pixel represent in an image?

- A) A segment of a video
- B) The smallest unit of an image
- C) The color depth of an image
- D) The brightness of an image

Ans. B) The smallest unit of an image

Q.45)Which of the following tasks identifies the object present in the image and where it is present in the image?

- a) Classification
- b) Classification and Localization
- c) Object Detection
- d) Instance Segmentation

Ans. b) Classification and Localization

Q.46) A megapixel refers to

- a) Thousand pixels
- b)Hunderd pixels
- c) Millions of pixels
- d) Tens pixels

Ans. c) Classification and Localization

Q.47) The resolution is expressed as

- a) Width by height
- b) Only width
- c) Only height
- c) Height by width

Q.48) Which of the following tasks are performed in Computer Vision for multiple objects?

- i) Classification
 - ii) Localisation
 - iii) Objects Detection
 - iv) Instance Segmentation
- a.) i) and ii)
 - b.) i) and iii)
 - c.) ii) & iii)
 - d.) iii) and iv)

Ans. d.)iii) and iv)

UNIT-6: Natural Language Processing

49. What does Natural Language Processing (NLP) focus on?

- A) Understanding and generating human languages by machines
- B) Analyzing data using mathematical models
- C) Recognizing images and objects in pictures
- D) Converting speech to text

Answer: A) Understanding and generating human languages by machines

50. _____ Information overload is a real problem when we need to access a specific, important piece of information from a huge knowledge base. Which application of NLP is helpful to extract useful information.

- a. Automatic Summarization
- b. Sentiment Analysis
- c. Text Classification
- d. All of the above

Ans: a. Automatic Summarization

51. _____ makes it possible to assign predefined categories to a document and organize it to help you find the information you need or simplify some activities.

- a. Automatic Summarization
- b. Sentiment Analysis
- c. Text Classification
- d. All of the above

Ans: c. Text Classification

52. One of the most common applications of Natural Language Processing is a chatbot, give some examples of chatbots _____.

- a. Mitsuku Bot
- b. CleverBot
- c. Jabberwacky
- d. All of the above

Ans: d. All of the above

53. _____ helps in cleaning up the textual data in such a way that it comes down to a level where its complexity is lower than the actual data.

- a. Speech Normalization
- b. Text Normalization
- c. Visual Normalization
- d. None of the above

Ans: b. Text Normalization

54. _____ the whole corpus is divided into sentences. Each sentence is taken as a different data so now the whole corpus gets reduced to sentences.

- a. Sentence Normalization
- b. Sentence Segmentation
- c. Sentence Tokenization
- d. All of the above

Ans: b. Sentence Segmentation.

55. _____ identify each document in the corpus, find out how many times the word from the unique list of words has occurred.

- a. Text Normalization
- b. Create Dictionary
- c. Document Vectors
- d. All of the above

Ans: c. Document Vectors

Q56. Which of the following is not a Virtual Assistant?

- a. Alexa
- b. Cortana
- c. Siri
- d. Silvi

Ans: d. Silvi

Q57. The following line refers to _____ $5 + 6 = 6 + 5$

- a. Different syntax, same semantics
- b. Same syntax, Different semantics
- c. Different syntax, Different semantics
- d. None of the above

Ans: a. Different syntax, same semantics

58. _____ are the words which occur very frequently in the corpus but do not add any value to it.

- a. Special Characters
- b. Stopwords
- c. Roman Numbers
- d. Useless Words

Ans: b. Stopwords

59. Which of the games below is related to natural language processing?

- a. Voice Assistants
- b. Chatbots

- c. Mystery Animal d. Grammar Checkers

Ans: c. Mystery Animal

60. The goal of sentiment analysis is to identify sentiment among several posts or even in the same post where emotion is not always explicitly expressed.

- a. Automatic Summarization b. Sentiment Analysis
c. Text Classification d. All of the above

Ans: b. Sentiment Analysis

61. Under _____, every word, number and special character is considered separately and each of them is now a separate token.

- a. Tokenization b. Token normalization c. Token segmentation d. All of the above

Ans: a. Tokenization

Q62. Which of the following is a virtual assistant developed by Microsoft?

- a. Siri b. Cortana c. Google Assistant d. Alexa

Ans: b. Cortana

63. _____ is the process in which the affixes of words are removed and the words are converted to their base form.

- a. Stemming b. Stopwords
c. Case-sensitivity d. All of the above

Ans: a. Stemming

64. Which steps we have to approach to implement the bag of words algorithm.

- a. Text Normalization b. Create Dictionary
c. Create Document Vectors d. All of the above

Ans: d. All of the above

65. What a virtual assistants can do?

- a. They can help us in keeping notes of our tasks. b. They can make calls for us.
c. They can send messages for us. d. All of the above.

Ans: d. All of the above.

Q66. Which of the following is not an example of smart bot?

- a. Siri b. Google Assistant
c. Cortana d. Bots which are deployed in the customer care section and answer the basic queries.

Ans: d. Bots which are deployed in the customer care section and answer the basic queries.

Q67. The term used for the whole textual data from all the documents altogether is known as _____

- a. Complete Data b. Slab c. Corpus d. Croupus

Ans: c. Corpus

UNIT-7: Evaluation

68. _____ is the process of understanding the reliability of any AI model, based on outputs by feeding test dataset into the model and comparing with actual answers.

- a. Evaluation b. Problem Scoping c. Data acquisition d. Data Exploration

Ans: a. Evaluation

69. _____ is defined as the percentage of correct predictions out of all the observations.

- a. Overfitting b. Accuracy c. Confusion Matrix d. Data acquisition

Ans: b. Accuracy

70. _____ is defined as the percentage of true positive cases versus all the cases where the prediction is true.

- a. Overfitting b. Accuracy c. Precision d. Data acquisition

Ans: c. Precision

71. If model will simply remember the whole training set, and will therefore always predict the correct label for any point in the training set. This is known as _____

- a. Overfitting b. Overriding
c. Over remembering d. Evaluation

Ans: a. Overfitting

72. _____ can be defined as the fraction of positive cases that are correctly identified.

- a. Recall b. Accuracy c. Precision d. Data acquisition

Ans: a. Recall

73. The result of comparison between the prediction and reality can be recorded in what we call the _____.

- a. Overfitting b. Problem Scoping
c. Confusion Matrix d. Data acquisition

Ans: c. Confusion Matrix

Q74. Which of the following parameters will be consider by recall, while evaluating a model's performance?

- i. False negative ii. True negative iii. False positive iv. True Positive

Choose the correct option:

- a. only (i) b. (ii) and (iii) c. (iii) and (iv) d. (i) and (iv)

Ans: d. (i) and (iv)

Q75. Raunak was learning the conditions that make up the confusion matrix. He came across a scenario in which the machine that was supposed to predict an animal was always predicting not an animal. What is this condition called?

- (a) False Positive (b) True Positive (c) False Negative (d) True Negative

Ans. (c) False Negative

Q.76If a classification model has a precision of 0.80 and a recall of 0.60, what is its F1 score?

- A) 0.72
B) 0.75
C) 0.68
D) 0.65

Answer: C) 0.68

Q77. A model has the following values for a binary classification task:

- True Positives (TP) = 100
- False Positives (FP) = 20
- False Negatives (FN) = 30
- True Negatives (TN) = 150

What is the F1 score of the model?

- A) 0.80
B) 0.85
C) 0.72
D) 0.75

Answer: D) 0.75

78. What is the range of values for the F1 score?

- A) 0 to 1
B) -1 to 1
C) 0 to 100
D) $-\infty$ to $+\infty$

Answer: A) 0 to 1

79. In the context of AI, what does the F1 score represent?

- A) The balance between precision and recall
B) The accuracy of the model
C) The percentage of correct predictions
D) The average of precision and recall

Answer: A) The balance between precision and recall

80. Efficiency of the model is calculated on the basis of which parameters.

- a. F1 Score >> Recall >> Precision >> Accuracy
b. Accuracy >> Precision >> Recall >> F1 Score
c. Precision >> Accuracy >> F1 Score >> Recall
d. Recall >> Precision >> Accuracy >> F1 Score

Ans: b. Accuracy >> Precision >> Recall >> F1 Score

PART A – EMPLOYABILITY SKILLS:

UNIT-1: Communication Skills II

Q.81 Which of these is NOT a common communication barrier?

- a) Linguistic barrier
- b) Interpersonal barrier
- c) Financial barrier
- d) Organizational barrier

Answer (c) Financial barrier

Q. 82 Rohit, when leaving from his friend's house is bidding goodbye by waving his hands. Which type of non-verbal communication is used by Rohit?

- a) Expression
- b) Body language
- c) Gesture
- d) All the above

Answer c) Gesture

83. Which of the following are effective components of a good feedback?

- (a) Detailed and time consuming
- (b) Direct and honest
- (c) Specific
- (d) Opinion-based

Ans: (c) Specific

84. Which of the following is NOT an element of communication within the communication process cycle?

- (a) Channel
- (b) Receiver
- (c) Sender
- (d) Time

Ans: (d) Time

UNIT-2: Self Management Skills II

85. What is the primary goal of self-management?

- A) To manage others effectively
- B) To manage one's emotions, thoughts, and behaviors
- C) To delegate tasks
- D) To work as a team

Answer: B) To manage one's emotions, thoughts, and behaviors

86. Self-management, also known as _____, is the ability to effectively control one's emotions, behavior and thoughts.

- a. Self – control
- b. Self – innovative
- c. Self – Design
- d. None of the above

Ans: a. Self – control

87. _____ refers to focusing human efforts for maintaining a healthy body and mind capable of better withstanding stressful situations.

- a) Mental Health
- b) Emotional Health
- c) Self-Management
- d) Stress Management

Ans: d. Stress Management

88. Pranjali gets up at 5 am and goes to her badminton classes. Then she comes home and finishes her homework before going to school. She does this all by herself. No one tells her to do it. This is an example of

- (a) Self-motivation
- (b) External motivation
- (c) Both self and external motivation
- (d) Not any specific type of motivation

Ans: (a) Self-motivation

UNIT-3: ICT SKILLS II

89 Which software checks whether the device is functioning properly or not and controls software resources of the computer?

- a. operating system b. application software c. anti-virus software d. microsoft word

Answer: a. operating system

90. In which of the following, a person is constantly followed/chased by another person or group of several peoples?

- a. Phishing b. Bulling c. Stalking d. Identity theft

Ans: c. Stalking

91. _____ operating system enables multiple users to work on the same computer simultaneously.

- (a) Single-user , single-task operating system (b) Single-user, multi-task operating system
(c) Multi-user (d) None of the above

Answer: (c) Multi-user

92. What is the shortcut key to rename a file or folder in windows?

- (a) Ctrl + R (b) F2 (c) Alt + R (d) Ctrl + F2

Answer: (b) F2

UNIT-4: ENTREPRENEURIAL SKILLS II

93. _____ is the type of self-employment where one is running a business to satisfy the needs of people and looking for ways to make the business better.

- (a) Entrepreneurship (b) Entrepreneur
(c) Business Idea (d) Entrepreneurist

Ans: (a) Entrepreneurship

94. A doctor who works for a hospital is a _____ person.

- (a) Wage employed (b) Self employed
(c) Both of the above (d) None of the above

Answer: (a) Wage employed

95. 'An entrepreneur has to get the work done through others.' Which characteristic of the entrepreneur does this statement depict?

- (a) Motivator (b) Organiser (c) Innovator

Ans. (a) Motivator

96. Which of the following entrepreneurship refers to starting industries in which manufacturing, trading, providing services, productions are done on a micro scale?

- (a) Women Entrepreneurship (b) Agricultural Entrepreneurship
(c) Small Scale Entrepreneurship (d) None of the above

Answer: Small Scale Entrepreneurship

UNIT-5: GREEN SKILLS II

97. SDGs stands for _____

- a. Sustainable Development Goals b. Sustainable Development
c. Sustainable Developmental Goals d. None of the above

Ans: a. Sustainable Development Goals

98. . How many sustainable development goals are given by the United Nations?

- (a) 18 (b) 17 (c) 15 (d) 20

Ans: (b) 17

99. Choose the option which is not a sustainable development goal according to United Nations.

- (a) Clean Water and Sanitation (b) Gender Equality
(c) Population (d) Reduced Inequalities

Ans: (c) Population

100..Choose the option which defines sustainable development.

- (a) Taking care of future generations (b) Taking care of only ourselves
(c) Taking care of ourselves and the future generations (d) Well-being of all

Ans: (c) Taking care of ourselves and the future generations

