

(7 pages)

Reg. No. :

Code No. : 6185

Sub. Code : WCAE 21

M.C.A. (CBCS) DEGREE EXAMINATION,
APRIL 2024.

Second Semester

Computer Application

Elective – ARTIFICIAL INTELLIGENCE AND
MACHINE LEARNING

(For those who joined in July 2023 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (15 × 1 = 15 marks)

Answer ALL questions.

Choose the correct answer :

1. _____ is a subset of AI that uses statistical methods to enable machines to learn from data.
- (a) Deep Learning
 - (b) CNN
 - (c) Machine Learning
 - (d) None of these

2. Who is the father of AI?

- (a) Charles Hinton
- (b) Carry Andrew
- (c) Yann LeCun
- (d) John MC Carthy

3. In how many category process is Artificial Intelligence classified?

- (a) 1
- (b) 3
- (c) 4
- (d) 2

4. _____ is a single optimization algorithm used in artificial algorithm.

- (a) Hill Climbing
- (b) Aid Climbing
- (c) Adaptive Climbing
- (d) Alpine Climbing

5. _____ problem that requires its solution to be within some limitations or condition

- (a) CSP
- (b) SSB
- (c) XSS
- (d) CS

6. Means and analysis is a mixture of _____ search technique.

- (a) backward and sideward
- (b) forward and backward
- (c) backward and forward
- (d) none of these

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7. _____ is the simplest form of logic where all the statements are made by proportions.
 - (a) Proportional Logic
 - (b) Systematic logic
 - (c) Structured Logic
 - (d) Prepositional logical
8. _____ represents the thing that belongs to a classes of a particular object.
 - (a) occurrence
 - (b) instance
 - (c) case
 - (d) none of these
9. Computable function must be a _____ procedure (an algorithm) telling how to compute the function.
 - (a) infinite
 - (b) empty
 - (c) finite
 - (d) dimension
10. How can we achieve Artificial Intelligence in real life?
 - (a) Machine Learning
 - (b) Deep Learning
 - (c) CNN
 - (d) None of these
11. How many types of machine learning used?
 - (a) 2
 - (b) 4
 - (c) 3
 - (d) 1

12. Machines running LISP are also called?
 - (a) ML workstation
 - (b) DL workstation
 - (c) AI workstation
 - (d) None of these
13. The computer program simulating the thought process of humans is known as _____.
 - (a) Expert system
 - (b) system
 - (c) software system
 - (d) peripheral system
14. The bidirectional feedback loop helps link the computer modeling with _____.
 - (a) Aggregative science
 - (b) Cognitive science
 - (c) Ignitive science
 - (d) Non-cognitive
15. The technique of computer vision that relies on the image templates is known as _____.
 - (a) Visual based vision
 - (b) Model based vision
 - (c) Non-model based
 - (d) Online-based



PART B — (5 × 4 = 20 marks)

Answer ALL questions, choosing either (a) or (b).
Each answer should not exceed 250 words.

16. (a) Explain the criteria for success.

Or

- (b) Explain the problem characteristics.

17. (a) Elaborate on Hill Climbing.

Or

- (b) Explain frame problem.

18. (a) Explain how to represent simple facts is logic.

Or

- (b) Elucidate on natural deduction.

19. (a) Explain the importance of hybrid cloud.

Or

- (b) Explain the roles of statistics in machine learning.

20. (a) Explain data preparation.

Or

- (b) Explain machine learning cycle.

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PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).
Each answer should not exceed 600 words.

21. (a) Explain the various AI techniques.

Or

- (b) Explain the various issues in design of search.

22. (a) Explain Heuristic Search techniques.

Or

- (b) Explain the various approaches to knowledge representations.

23. (a) Briefly explain computable functions and predicates.

Or

- (b) Explain how to represent knowledge using rules.

24. (a) Explain big data in context with machine learning.

Or

- (b) Explain the various approaches to machine learning.

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25. (a) Explain the impact of machine learning on applications.

Or

(b) Explain machine learning cycle in detail.

