

# Artificial Intelligence

## Assignment - I

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### MCQ - IV

### History of AI

Artificial intelligence is not a new term or not a new technology. Even there are the myths of Mechanical men in ancient greek and Egyptian myths.

Followings are some milestone in the history of AI which defines the journey from the AI generation to the till date.

<u>Year</u>	<u>Events</u>
1. 1943	Evolution of Artificial neurons
2. 1950	Turing Machine
3. 1956	Birth of AI: Dartmouth conference
4. 1966	first chatbot: ELIZA
5. 1972	First intelligent robot: WABOT-1
6. 1974-1980	First AI winter
7. 1980	Expert System
8. 1987-1993	second AI winter
9. 1997	IBM deep blue: first computer to beat a world chess champion
10. 2002	AI in home: Roomba
11. 2011	IBM Watson: wins quiz show
12. 2012	google now
13. 2014	chatbot Eugene Goostman: wins a Turing test

14 2015

Amazon Echo

## Maturation of AI (1943-1952)

⇒ Year 1943: The first work which is now recognized as AI was done by Warren McCulloch and Walter Pitts in 1943. They proposed a model of artificial neuron.

⇒ Year 1949: Donald Hebb demonstrated an updating rule for modifying the connection system strength between the neurons. His rule is now called Hebbian Learning.

⇒ Year 1950: - ~~So~~ Alan Turing who was an English Mathematician and pioneered Machine learning in 1950. Alan Turing publishes "Computing Machine and Intelligence" in which he proposed a test. The test can check the machine's ability to exhibit intelligent behaviour equivalent to human intelligence, called "Turing Test".



## The birth of AI (1952 - 1956)

⇒ Year 1955: An Allen Newell and Herbert A. Simon created the "first AI program", which was named as "Logic Theorist". This program had proved 38 of 52 mathematical theorems and find new and more elegant proofs for some theorems.

⇒ Year 1956: The word "AI" first adopted by American computer scientist John McCarthy at the Dartmouth conference. For the first time, AI coined as intelligence field.

## The golden years - Early enthusiasm (1956 - 1974)

⇒ Year 1966: The researchers emphasized developing the algorithms which can solve mathematical problems. Joseph Weizenbaum created the first chatbot in 1966, which was named as ELIZA.

⇒ Year 1972: The first intelligent humanoid robot was built in Japan which was named as WABOT-1.

the first AI winter (1974-1980)

→ The duration between years 1974 to 1980 was the first AI winter duration. AI winter refers to the time period where computer scientists dealt with a severe shortage of funding from government to AI researchers.

→ During AI winters, an interest of publicity on artificial intelligence was decreased.

The boom of AI (1980-1987)

→ Year 1980: After AI winter duration, AI came back with "Expert System". Expert systems were programmed that emulate the decision-making ability of a human expert.

→ In the year 1980, the first natural conference of the American Association of Artificial Intelligence was held at Stanford University.



- The second AI winter (1987-1993)
- The duration betw 1987-1993 was the second AI winter duration.
- Again investors and government stopped in funding for AI research as due to high cost but not efficient result. The expert system such as XCON was very cost effective.

### The Emergence of Artificial Systems (1993-2011)

- Year 1997: In the year 1997, IBM Deep Blue beats world chess champion, Garry Kasparov, and became the first computer to beat a world chess champion.
- Year 2002: For the first time, AI entered the home in the form of Roomba, a vacuum cleaner.
- Year 2006: AI came in business world till year 2006, companies like facebook, twitter started using it.



- Deep learning, Big data, AI (2011-)
- year 2011: In 2011, IBM's Watson won jeopardy, a quiz show, where it had to solve the complex questions as well as riddles. Watson had proved that it could understand natural language and can solve tricky questions quickly.
- year 2012: Google has launched an Android app feature "google now", which was able to provide information to the user as a prediction.
- year 2014: In 2014, ~~Mc~~ "Eugene goostman" won a competition in infamous "Turing test".
- year 2018: The "project Debater" from IBM debated on complex topics with master debaters and also performed extremely well.



- Google has demonstrated an AI program "Duplex" which was a virtual assistant and which has taken hairdresser appointment and call and lady on the other side said didn't notice that she was talking with a machine.

Now AI has developed to a remarkable level. The concept of Deep learning, big data and data science are now trending like a boom. Now-a-days, companies like Google, Facebook, IBM and Amazon are working on AI and creating amazing devices.