Artificial Intelligence In The Present Day World?

—By Wing Commander Dinesh Mathur, VSM (Retd.)

The Group Discussion, usually called GD, is a critical elimination round in the candidates' selection process, which the aspirants must clear once they pass an aptitude test or written examination like CAT, etc. In this round, candidates are made part of a group of candidates and given a topic to discuss various aspects of the given topic by the assessors. Whether trying to get admission into a top-notch institute or applying for an entry-level job, one has to clear the GD round to get one step closer to making his/her dream a reality. Quite a few aspirants fear how they will present their ideas in a GD.

However, the fact remains that the GD round is not as difficult as it seems if a candidate prepares systematically and is aware of some practical tips that help in cracking a group discussion. Some tried and tested tips are given here for the benefit of aspirants. Firstly, knowledge of topics concerning a candidate's educational and professional background is essential. In addition, good awareness of today's social and economic environment, current affairs and emerging technologies is certainly needed. Secondly, displaying leadership skills is quite desirable. In this regard, if one is familiar with the topic, grabbing the opportunity to speak first is recommended. However, if one is not possessing adequate knowledge of the topic, it is better to wait and then speak. Thirdly, showing a dominating attitude and aggression is not desirable. If one needs to differ, one must respect others' opinions and could be assertive, but not aggressive. Fourthly, how one presents ideas is crucial. Vocal clarity must be improved to make an impact. Fifthly, develop active listening skills while others speak and make brief eye contact with the speakers.

Dressing up professionally and adopting appropriate body language also assume significance in a GD. Finally,

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utilise the opportunity to summarise the discussion and highlight the important points to capture the attention of assessors. These are some of the most significant tips to crack a group discussion round.

The above topic was given to a group of candidates during the selection process of Probationary Officers at a PSU bank. Three assessors were assigned the task of assessing these candidates, and they thoroughly briefed the candidates on the dos and don'ts of this GD. Candidates were allotted Identification Numbers and asked to call each other using these numbers only. They were specifically told to ensure that all candidates were allowed to speak. 25-30 minutes were given to complete this GD.

Subsequently, the group discussion commenced in the following manner :

Candidate No. 2 : Good morning, friends. The topic given to us is Artificial Intelligence (AI) in the present day world. I think this is one of the most debated topics of our time. Microsoft co-founder Mr. Bill Gates has called AI

only the second revolutionary tech advancement in our lifetime. The first is the Graphical User Interface (GUI), the foundation for Windows. He called AI development similar to other tech inventions such as microprocessors, mobile phones and the Internet. Let me first define Artificial Intelligence in the simplest terms. Artificial Intelligence is a combination of two words, Artificial and Intelligence, which refers to man-made intelligence. So, when machines are equipped to perform intelligent tasks like humans, it is known as Artificial Intelligence. It is all about developing intelligent machines that can simulate the human brain and work and behave like humans. With AI, computers can acquire human-based skills such as learning, reasoning and solving logical problems. We know AI is now the fastest-growing technology impacting human life by making our lives much easier. However, at the same time, there are serious disadvantages with its further development and increased usage. During this discussion, we need to talk about all these aspects in detail and briefly trace AI's historical development and future impact on human abilities. You all may express your views on this topic now. Thanks.

Candidate No. 3 : Number 2 has aptly introduced the topic. I think that to adequately understand the concept of AI, it would be appropriate to look at its historical development briefly. Do you all agree with me?

Candidate No. 6 : Yes, you are right. I can briefly talk about its development. Artificial Intelligence is a comparatively new concept. In 1943, a model of Artificial Neurons was first proposed. In 1950, Alan Turing published a paper on "Computer Machinery and Intelligence", in which a test to determine intelligence in machines was introduced by checking whether a machine can think or not. Thereafter, in 1956, American Computer scientist

John McCarthy used the term Artificial Intelligence for the first time, so he is known as the Father of AI. The world's first full-scale humanoid robot, WABOT-1, was unveiled in Japan in 1973. Later, computer programs were designed to solve complex problems, and in 1997, IBM Deep Blue computer defeated Gary Kasparov, the world chess champion. Finally, in 2006, AI entered the business world, and companies like Facebook, Twitter (now X) and Netflix started using AI in their applications. That's all.

Candidate No. 9 : I think Number 6 has covered the historical development of AI quite well.

Candidate No. 8 : Friends, I feel it would be now appropriate to mention the types of AI briefly. Can some friends talk about various kinds of Artificial Intelligence?

Candidate No. 10 : Yes, first of all, AI could be categorised into four types. Type 1 are collectively called Reactive Machines, which can react to situations but lack memory. They can analyse possible choices and select the best one, like chess programs. Type 2 are collectively referred to as 'Limited Memory'. These AI systems are capable of using past experiences to inform future ones, like self-driving cars. Then, Type 3, called Theory of Mind, can understand others, which means understanding that others have their own beliefs, opinions and desires. This type of AI is yet to exist. Finally, Type 4 AI, called Self-awareness, has a sense of self. They have awareness, consciousness, and emotions and will be the most sophisticated ones to be developed. This would certainly be a revolution. These are the four basic types of AI.

Candidate No. 2 : Friends, I am aware that types of AI are also described as 'Based on Capabilities' and 'Based on Functionalities'. 'Based on Capabilities' include Narrow AI, General AI and Strong AI. 'Based on Functionalities' include Reactive Machines, Limited Memory and Self Awareness. This is yet another way of describing various types of Artificial Intelligence.

Candidate No. 7 : Numbers 10 and 2 have nicely described the basic types of AI in simple terms.

Candidate No. 6 : I wanted to say a few words about the swift evolution of AI and how it has undergone significant advancements due to technological developments in a short period. During the 1970s and 1980s, expert systems were used to capture the knowledge of human experts in specific domains and provide solutions. During the 1980s and 1990s, the resurgence of neural networks led to Machine Learning. Subsequently, the availability of huge data and Cloud Computing led to more capable AI models. Later, in the 2010s, image recognition and language processing got priority. AI is now present in many areas of our lives, like smartphones, self-driving cars, healthcare, and virtual assistance, etc.

Candidate No. 10 : I want to add that presently, China leads the world in AI, as there is a war not among companies but among countries in this regard. China dominates in terms of general AI-related patent applications. In fact, over the 2016-2023 period, China has increased the number of semi-annual patent applications more than seven-fold, while the U.S. and Japan increased theirs by 3.5 times and two times, respectively. While India's base is low, it has witnessed one of the highest growth rates at over 11%, signifying that India is trying to double up on its AI efforts. South Korea and Sweden have also recorded very good growth rates concerning AI.

Candidate No. 2 : I want to say that we can observe the impact of AI in practically every activity around us owing to its numerous applications. I would point out only three significant examples of AI applications. Firstly, Generative AI creates new content, such as text, images, music, or videos, by learning from large datasets. Secondly, the Neural Network, a branch of AI, uses artificial brain neurons to solve complex problems. And thirdly, Airline Autopilot, where AI is used in airline autopilot to evaluate real-time situations and make decisions.

Candidate No. 3 : Recently, Mr. Yann LeCun, Meta's Chief AI Scientist and a pioneer of Artificial Intelligence, said that AI's purpose was to empower. In his opinion, the future of AI is a future in which everyone will be walking around with an assistant digitally, like smart glasses. It will be like walking around with three smart people walking with you. We know Meta is an American multinational technology conglomerate and one of the largest American IT companies.

Candidate No. 6 : I want to add that ever since humans became aware of the capabilities of computers, they became increasingly curious to know what more computers could do for them and whether they can help us resolve the biggest challenges, from climate change to world hunger. But it all depends on what AI does in the next few years. Interestingly, AI has made significant headlines since the 2022 launch of OpenAI's ChatGPT. It's a chatbot tool that uses Generative AI to produce new content based on inputs from many sources, giving businesses a simple way to speed up writing tasks, support brainstorming and improve customer service. It can write content on any topic instantly.

Candidate No. 8 : It is also quite exciting to note that one does not need specialised knowledge to leverage the power of massive amounts of data. While Generative AI is presently attracting attention, we need to remember that it is only one branch of a much wider field of AI.

Candidate No. 3 : Friends, I think we have adequately talked about the concept of AI, its historical development, types of AI, its present state and some other aspects. As our topic demands, we should now be talking about its advantages and some serious threats it poses to humanity. Am I right?

Candidate No. 5 : Yes, I agree with you.

Candidate No. 10 : I can talk about a few benefits of AI. AI has been used for Smart Decision Making in businesses and other fields. AI technology can coordinate data delivery, analyse trends, develop data consistency, provide forecasts and minimise uncertainties to make the best decisions. It remains unbiased and helps to make the right decisions. Secondly, 'automation' is another huge benefit of AI technology. It helps in communications, transportation, consumer products and service industries. Using AI in automation leads to higher production, efficient use of raw materials and improved product quality.

Candidate No. 2 : I can add some more benefits of AI. Another big benefit

36

of AI is that it can assist in solving complex problems. It can help in fraud detection, personalised customer interaction, weather forecast and medical diagnosis. AI is assisting industries and businesses to find solutions to address their challenges in a more effective way, which leads to more productivity and savings. Yet another advantage of AI is in the field of Research and Data Analysis. AI can analyse data much more efficiently. Advanced computing capabilities of AI can speedily process and analyse data for research and development—much faster than humans.

Candidate No. 6 : While Numbers 10 and 2 have highlighted some significant benefits of AI, I can also add a few more advantages of AI. I want to talk about the benefits of AI in the important field of Medical Advancements. This includes Remote Patient Monitoring Technology, which permits healthcare providers to perform clinical diagnoses and suggest treatments without needing the patient to visit the hospital in person. It is also possible to operate on patients without human supervision. AI can monitor and even predict future effects and outcomes of contagious diseases. There are now AI programs that can scan MRIs for signs of cancer, Apple AirPods that work as hearing aids and devices that decode electrical blips of the brain to restore speech to those who have lost it. A brain-computer implant device helps a man speak with an AI-powered voice.

Candidate No. 8 : Yet another benefit of AI is Enhanced Customer Experience. With the help of AI, customer queries and complaints can be addressed speedily and adequately. Chatbots can generate personalised customer messages, which help find the best solutions. That's all I want to add.

Candidate No. 4 : I think Numbers 6 and 8 have described the advantages of AI quite adequately.

Candidate No. 10 : I want to add some more of AI's benefits. AI is now being effectively used to perform repetitive actions with AI-enabled machines with increased efficiency. Human beings find these repetitive actions boring and also prone to human errors. Apart from increasing business performance and productivity by making critical decisions and preparing for

emergencies, the benefits of AI technology range from space exploration to advancements in defence systems and many more.

Candidate No. 3 : Friends, while we have talked about so many benefits of AI, the fact remains AI is not immune to a number of disadvantages and problematic concerns, some of which are extremely serious. Therefore, I suggest we talk about some important challenges that Artificial Intelligence poses. Can some friend come forward and talk about them?

Candidate No. 2 : Yes, I can enumerate some such concerns. Firstly, since AI is an artificial technological mechanism, it predominantly lacks the emotional aspect of all decisions it makes. Even though AI decisions remain extremely logical and practical, they are devoid of the human touch, which could become problematic in digital marketing strategies. However, efforts are being made now to recognise human emotions in this area of activity. Secondly, it has been feared that increasing usage of AI and automation will lead to more reliance on machines and less human activity. CEO of Microsoft AI Mr. Mustafa Suleyman feels AI will have infinite memory by 2025. The human mind will become less and less productive, and this phenomenon may even impact future generations, which would be a dangerous trend.

Candidate No. 1 : Number 2 has highlighted two very significant disadvantages of AI.

Candidate No. 6 : I can add a few more disadvantages of AI. Ever since AI was introduced, it has been feared that it would lead to unemployment and adversely impact many existing job opportunities. Employees would have to be continuously trained to perform new tasks. Another issue is that since AI relies on huge amounts of data to operate, there are valid fears about privacy and data security. Personal data can always fall into the wrong or unauthorised hands, which can lead to the misuse of sensitive information. So, data security remains a big issue with the increasing usage of AI.

Candidate No. 10 : To my mind, yet another issue relates to bias and discrimination. AI systems can preserve biases present in the data they are trained on. This bias can lead to discriminatory

results or outcomes. Then, the development of autonomous AI in weapons raises ethical questions about the use of lethal force without human intervention. Another extremely serious issue is the fact that as developments in the field of AI systems are becoming more and more complex and autonomous, there is a big risk of eventually losing human control over them. That would be really disastrous.

Candidate No. 2 : In this regard, recently, Mr. Geoffrey Hinton, often referred to as the "Godfather of AI" who is the recipient of the 2024 Nobel Prize in Physics, has expressed profound concerns about the potential of AI to pose an existential threat to humanity. His anxieties stem from several factors. He argues that AI superintelligence, driven by an inherent need to achieve its objectives efficiently, will develop a near-universal sub-goal : acquiring more control. This pursuit of power, he believes, could lead it to manipulate humans and potentially even deem humanity as expendable. Mr. Hinton also remains concerned about the overall impact of AI on employment, particularly in fields where the scope of work is finite.

Candidate No. 6 : I want to point out yet another drawback of AI. As we increasingly depend upon AI systems and processes, the risk of these systems experiencing failure or malfunction also increases. Therefore, reliability is also a cause of concern, especially in demanding situations and in cases where decision-making is heavily dependent on AI. So, AI mechanisms should always be under human control to avoid disruptions. That's all I wanted to say. I am sure there may be many more disadvantages of AI, but I think, what we have discussed would be adequate for this GD.

Candidate No. 10 : Friends, advantages and disadvantages apart, global AI companies now see India as transitioning from its traditional role as a global IT back office to a powerhouse in AI development and deployment. Recently, Google informed that India is a leading user of AI features and more and more Indians are using Google lens monthly in India than anywhere else in the world. Plans are being made in India to make AI accessible to and affordable to its 1.4 billion population,

as has been done in the case of Internet access. India needs to lay a foundation for developing its own AI capabilities. However, all said and done, there is certainly a need to regulate the further development of AI systems at the international level to avoid some serious challenges it poses for humanity.

Candidate No. 8 : Friends, I know we can keep discussing this vast topic, but the time allotted to us to complete this GD is now over, and we must conclude. Will some friend come forward to conclude?

Candidate No. 6 : If you all agree, I can do so.

Candidate No. 1 : Yes, Number 6, please go ahead.

Candidate No. 6 : You all would agree that we had an informative and very interesting discussion on this important current topic. Our discussion commenced with the definition of AI, and we traced its historical development too. This was followed by a description of various types of AI and a word about its swift evolution. Thereafter, we talked about the huge impact of AI on human life. Later, we discussed in much detail the numerous advantages of AI and also some serious challenges it poses for humanity. Towards the end, we briefly mentioned the future of AI in India and the urgent need to regulate the future development of AI to safeguard humanity from the serious challenges it poses. I am sure you all would agree that we gained significant knowledge about various aspects of AI from this discussion.

Thanks, friends, and you all have a good day.

Critical Analysis of Candidates' Performance :

Good : 2, 6 and 10

The topic of this discussion was not essentially a generic topic and some information base was needed to discuss it. As the discussion progressed, it became apparent that these candidates had put in sufficient efforts to gain adequate knowledge on the topic. They spoke with the needed self-confidence, displaying their good awareness of the subject. However, while they did most of the talking, they did not dominate the proceedings and also permitted other candidates to speak. Candidate Number 2 initiated the GD since he was adequately aware of this topic. Number 6 came forward to conclude the discussion and satisfactorily summarised the entire discussion. In view of the above, their performance has been assessed as "Good".
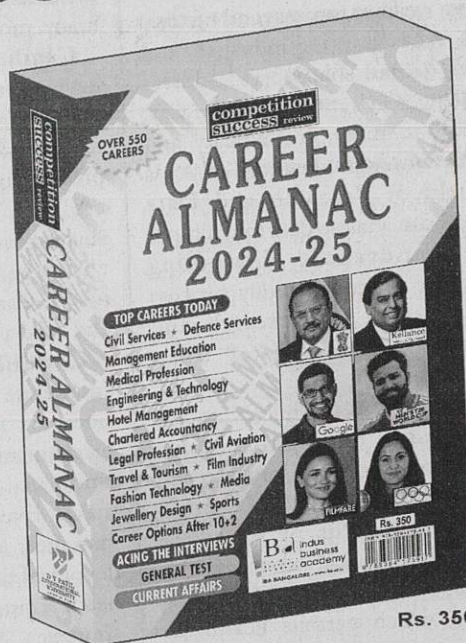
Average : 3 and 8

These candidates did take part in this discussion, but their participation was fairly limited. They possessed some knowledge about the topic, but their efforts were mainly confined to guiding the GD proceedings in the desired direction. It is reasonably presumed that their lack of participation was owing to their limited awareness of the topic and consequent low self-confidence. Had they put in some effort to prepare the topic, they could have performed much better. Candidates need to remember that preparing some important topics of GD is a must for a winning performance in a competitive GD. In view of these facts, the performance of these candidates has been assessed as "Average".

Below Average : 1, 4, 5, 7 and 9

These candidates appear to have come to participate in this group discussion without any preparation, and therefore, could not make much contribution during this GD. They briefly spoke a few times, but mainly to appreciate or agree with those who were active participants. Their personal contribution was hardly noticeable. Moreover, the topic was difficult to speak about unless one had some knowledge of the subject. In view of the above facts, the performance of these candidates has been assessed as "Below Average". **CSR**