Q1.

(a) A dog is more intelligent than a worm.

Ans: • Dogs can solve problems that worms cannot, such as finding food or avoiding danger.

• Dogs can learn new things more easily than worms.

• Dogs can communicate with each other in ways that worms cannot.

(b) A human is more intelligent than a dog.

• Humans can think abstractly and solve the problems that dogs cannot and Humans have advanced cognitive functions like reasoning and creativity.

• Humans have complex languages and communication Systems, both verbal and Non-verbal.

• Humans can create and use tools, which give them a greater ability to manipulate their environment. Dogs lack the capacity to invent, innovate, or contribute to the advancement of knowledge and technology in the same way technology can.

(c) An Organization is more intelligent than an individual women

- An Organization can pool the knowledge and skills of many individuals, which gives it a greater ability to solve problems.

- An Organization can make decisions more quickly and efficiently than an individual human.

- Organization benefit from diverse teams and viewpoints, which can lead to more creative and innovative solutions. Different individuals bring unique experiences and insights, contributing to a richer decision-making process.

Definition of "more intelligent":

Being more intelligent means having a greater capacity for problem-solving, learning, adaptability, and effective decision-making compared to another entity. It encompasses cognitive abilities, creativity, and the ability to utilize collective knowledge for better outcomes.

**Q2.**

Application of an AI

Application: Amazon Alexa

a) what does the Application actually do?

Amazon Alexa is a voice-controlled virtual assistant developed by Amazon. It provides a wide range of functions, including answering questions, setting reminders, playing music, controlling smart home devices, providing weather updates, and much more. Uses interact with Alexa by Speaking voice commands or questions to Alexa-enabled devices like Amazon Echo Speakers.

b) How well does it perform?

Amazon Alexa performs remarkably well in terms of Natural Language Processing and Voice recognition. It Can understand and respond to a wide array of uses queries and commands. It's totally Voice assistant and Performs the actions what we order it. Performance is evaluated based on it's ability to accurately interpret and respond to uses voice commands.

c) Is it an experimental system or a fielded System?

Alexa is an fielded System which is used by millions of users in worldwide. Uses do not need specialized expertise to use Alexa; it is designe to be user-friendly and accessible to people of all ages.

(d) Why is it intelligent?

Alexa is considered intelligent for several reasons. It uses advanced natural language processing algorithms to understand and interpret spoken language. Alexa maintain context within a conversation, understanding follow-up questions.

(e) Programming Language and User Interface.

Amazon Alexa's backend systems are built using a Variety of Programming languages, including Java, Python and others. However the user interface Primarly consists of Voice Commands and responses.

(f) References.

1. Amazon Alexa (n.d) "official Page".

2. Metz. C (2017). "The Real Story of How Amazon Built the Echo".

These are the references which I used.