1. **Self-driving cars like Tesla Autopilot (2 Marks)** (Hint: Consider perception, decision-making, and control aspects.)

   Yes, AI is used extensively. It uses perception (identify lanes, obstacles, and traffic sign through computer vision), decision-making (deciding to change lanes), and control (speeding up, and slowing down). Yes, Machine Learning is used, specifically Reinforcement Learning. The system learns and optimizes it's driving strategy through trial-and-error.

2. **Mobile banking app displaying your current account balance (2 Marks)** (Hint: Is the app making intelligent decisions or just showing stored data?)

   No AI is used. The app retrieves stored account data from the bank's database and displays it to the user. This is a process following explicit rules with no learning involved (non-adaptive).

3. **Netflix recommending movies and TV shows based on your viewing history (2 Marks)** (Hint: Think about how user preferences are analysed and predictions are made.)

   Yes, AI is used. Netflix uses AI to analyze user viewing patterns and predict their preferences. Yes, Machine Learning is used, specifically Supervised Learning, where algorithms are trained on historical data to recommend similar content to what the user has enjoyed before.

4. **Barcode scanner at a supermarket checkout (2 Marks)** (Hint: Consider whether it uses learning or just performs fixed functions.)

   No AI is used. It is a deterministic system where the scanner reads the barcode and matches it against a database to retrieve the corresponding product information. Its functionalities are pre-programmed and does not change or adapt over time unless explicitly programmed.

5. **YouTube's content moderation system that flags potentially harmful videos (2 Marks)** (Hint: Consider if the system is trained using examples or rules.)

   Yes, AI is used to detect harmful content. This is done by using Supervised Learning. The model is trained on large datasets of labelled examples (showing which is harmful vs which is safe) to learn patterns and classify new videos accordingly.