MB Ques

Section 1 (10 marks per question)

Q1. **Definition of Device/Cloud Collaboration Framework for Intelligence Applications** _**Mark Distribution**_ - Definition/Introduction (2 marks) - Detailed Explanation (3 marks) - Diagram/Illustration (2 marks) - Advantages/Disadvantages (2 marks) - Applications/Examples (1 mark)

Component	Marks
Definition/Introduction	2 marks
Detailed Explanation	3 marks
Diagram/Illustration	2 marks
Advantages/Disadvantages	2 marks
Applications/Examples	1 mark

Q2. **Explain the Privacy-Protection Solution in the Device/Cloud Collaboration Framework** _**Mark Distribution**_ - Definition/Introduction (2 marks) - Detailed Explanation (3 marks) - Diagram/Illustration (2 marks) - Advantages/Disadvantages (2 marks) - Applications/Examples (1 mark)

Component	Marks
Definition/Introduction	2 marks
Detailed Explanation	3 marks
Diagram/Illustration	2 marks
Advantages/Disadvantages	2 marks
Applications/Examples	1 mark

Q3. **Diagrammatically Describe the Runtime Adaptation Engine in the Device/Cloud Collaboration Framework. Explain its Functionalities and How it Optimizes Task Allocation** _**Mark Distribution**_ - Definition/Introduction (2 marks) - Detailed Explanation (3 marks) - Diagram/Illustration (2 marks) - Advantages/Disadvantages (2 marks) - Applications/Examples (1 mark)

Component	Marks
Definition/Introduction	2 marks
Detailed Explanation	3 marks
Diagram/Illustration	2 marks
Advantages/Disadvantages	2 marks
Applications/Examples	1 mark

Q4. **Analyze the Role of Logistic Regression in the Runtime Adaptation Engine. Discuss How it Determines the Optimal Resource Allocation Policy** _**Mark Distribution**_ - Definition/Introduction (2 marks) - Detailed Explanation (3 marks) - Diagram/Illustration (2 marks) - Advantages/Disadvantages (2 marks) - Applications/Examples (1 mark)

Component	Marks
Definition/Introduction	2 marks
Detailed Explanation	3 marks
Diagram/Illustration	2 marks
Advantages/Disadvantages	2 marks
Applications/Examples	1 mark

Q5. **Evaluate the Advantages and Disadvantages of Utilizing Cloud Resources in Addition to Smart Mobile Devices. Discuss the Impact on Battery Life, Network Connectivity, and Overall Performance** _**Mark Distribution**_ - Definition/Introduction (2 marks) - Detailed Explanation (3 marks) - Diagram/Illustration (2 marks) - Advantages/Disadvantages (2 marks) - Applications/Examples (1 mark)

Component	Marks
Definition/Introduction	2 marks
Detailed Explanation	3 marks
Diagram/Illustration	2 marks
Advantages/Disadvantages	2 marks
Applications/Examples	1 mark

Q6. **Assess the Applicability of the Device/Cloud Collaboration Framework for Personalized Intelligence Services. Provide Examples of Real-World Applications** _**Mark Distribution**_ - Definition/Introduction (2 marks) - Detailed Explanation (3 marks) - Diagram/Illustration (2 marks) - Advantages/Disadvantages (2 marks) - Applications/Examples (1 mark)

Component	Marks
Definition/Introduction	2 marks
Detailed Explanation	3 marks
Diagram/Illustration	2 marks
Advantages/Disadvantages	2 marks
Applications/Examples	1 mark

Q7. **Elaborate on the Challenges and Opportunities for Implementing Device/Cloud Collaboration in the Context of Privacy and Security. Discuss the Potential Risks and Mitigation Strategies** _**Mark Distribution**_ - Definition/Introduction (2 marks) - Detailed Explanation (3 marks) - Diagram/Illustration (2 marks) - Advantages/Disadvantages (2 marks) - Applications/Examples (1 mark)

Component	Marks
Definition/Introduction	2 marks
Detailed Explanation	3 marks
Diagram/Illustration	2 marks
Advantages/Disadvantages	2 marks
Applications/Examples	1 mark

Q8. **Critically Analyze the Scalability of the Device/Cloud Collaboration Framework. Discuss the Impact of Increasing Number of Devices and Heterogeneous Cloud Environments on the Performance** _**Mark Distribution**_ - Definition/Introduction (2 marks) - Detailed Explanation (3 marks) - Diagram/Illustration (2 marks) - Advantages/Disadvantages (2 marks) - Applications/Examples (1 mark)

Component	Marks
Definition/Introduction	2 marks
Detailed Explanation	3 marks

Diagram/Illustration	2 marks
Advantages/Disadvantages	2 marks
Applications/Examples	1 mark

Q9. **Propose and Justify an Alternative Resource Allocation Mechanism for the Runtime Adaptation Engine. Explain How it Improves Efficiency and Reduces the Overhead of Task Scheduling** _**Mark Distribution**_ - Definition/Introduction (2 marks) - Detailed Explanation (3 marks) - Diagram/Illustration (2 marks) - Advantages/Disadvantages (2 marks) - Applications/Examples (1 mark)

Component	Marks
Definition/Introduction	2 marks
Detailed Explanation	3 marks
Diagram/Illustration	2 marks
Advantages/Disadvantages	2 marks
Applications/Examples	1 mark

Q10. **Design a Cloud-Assisted Framework that Extends the Capabilities of the Device/Cloud Collaboration Framework. Discuss the Additional Features and Benefits it Offers** _**Mark Distribution**_ - Definition/Introduction (2 marks) - Detailed Explanation (3 marks) - Diagram/Illustration (2 marks) - Advantages/Disadvantages (2 marks) - Applications/Examples (1 mark)

Component	Marks
Definition/Introduction	2 marks
Detailed Explanation	3 marks
Diagram/Illustration	2 marks
Advantages/Disadvantages	2 marks
Applications/Examples	1 mark