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Overview

Competition Stage	Exam Type	Duration	Number of Questions	Question Type	Total Score	Number of Contestants	Note
Preliminary Stage	Written	60 minutes	60	True or false questions, single-answer questions, and multiple-answer questions	1000	Individual	From January 1, 2025 to the end date of the preliminary stage, 50 bonus points will be acquired for passing any of HCIA-Cloud/Big Data/AI certification, 100 bonus points for any of HCIP-Cloud/Big Data/AI certification, and 200 bonus points for any of HCIE-Cloud/Big Data/AI certification. These bonus points can be combined up to a maximum of 200 points.
National Stage	Written	120 minutes	150	True or false questions, single-answer questions, and multiple-answer questions	1000	Individual	
Regional Stage	Lab	4 hours	/	Comprehensive lab	1000	3 (as a team)	In the regional stage, all three contestants of a team will collaborate in completing the tasks for the lab exam. One team can submit only one set of answers. Total score = 30% x Written exam score + 70% x Comprehensive lab exam score.
Global Stage	Lab	8 hours	/	Comprehensive lab	1000		/

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Weighting

Competition Stage		Preliminary Stage	National Stage	Regional Stage	Global Stage
Technical Direction	Cloud	60%	60%	60%	60%
	AI	40%	40%	40%	40%

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Scope

3.1 Overview of Exam Contents

The Cloud Track exam contents cover knowledge about cloud services, cloud native, and AI, including but not limited to the basics of cloud computing, Huawei Cloud products and services, Huawei Cloud solutions, cloud migration, containers and Kubernetes (K8s), AI technologies and applications, machine learning, deep learning, computer vision, Natural Language Processing (NLP), large language models (LLMs), Huawei Cloud ModelArts, and Pangu models.

3.2 Knowledge to Be Tested

Technical Direction	Category	Key Item	Description	Preliminary Stage	National Stage	Regional Stage	Global Stage
Cloud	Cloud computing basics and basic operations of cloud services	Cloud computing basics	Concept of IT evolution: physical environment → virtualization environment > private cloud/public cloud; background, definition, benefits, and classification of cloud computing; infrastructure as a service (IaaS), platform as a service (PaaS), and software as a service (SaaS)	√	√	√	√
		Huawei Cloud	Overview, application scenarios, ecosystem, and billing modes of Huawei Cloud; introduction to AZs, regions, and Identity and Access Management (IAM)	√	√	√	√
		Compute services	Compute service overview: Elastic Cloud Server (ECS), Bare Metal Server (BMS), Image Management Service (IMS), and Auto Scaling (AS)	√	√	√	√
		Networking services	Similarities and differences between traditional networks and cloud networks, Virtual Private Cloud (VPC) technologies, security groups, Access Control List (ACL), Elastic IP (EIP), Elastic Load Balance (ELB), Virtual Private Network (VPN), and NAT Gateway	√	√	√	√
		Cloud storage services	Data storage concepts and development, cloud storage concepts, classification, and application scenarios, and concepts, technical principles, and usage of Object Storage Service (OBS), Elastic Volume Service (EVS), and Scalable File Service (SFS)	√	√	√	√
		Database services	Database developments, concepts of relational databases and cloud databases, and features and usage of Relational Database Service (RDS) and non-relational database service GeminiDB	√	√	√	√
	Cloud migration	Cloud migration methodology	Strategy formulation and top-level planning, survey, analysis, evaluation and planning, solution design and pilot planning, and implementation and O&M of cloud migration		√	√	√
		Landing Zone best practices	Design and implementation methods, requirement survey, solution design and implementation of Landing Zone		√	√	√
		Cloud migration implementation	Using migration-related services, such as Server Migration Service (SMS), Object Storage Migration Service (OMS), Data Replication Service (DRS), Distributed Cache Service (DCS), and Migration Center (MgC), to migrate compute, storage, and database services		√	√	√
	Cloud native architecture building	Cloud native architecture overview	Concepts, background, technology landscape, architecture evolution principles, application scenarios, and development trends of cloud native	√	√	√	√
		Cloud native infrastructure	Container-related concepts; container engines, images, and repositories; concepts, architecture, and orchestration of Kubernetes; Istio-related concepts; Huawei Cloud container services, including Cloud Container Engine (CCE), Cloud Container Instance (CCI), SoftWare Repository for Container (SWR), and Application Service Mesh (ASM)	√	√	√	√
	Cloud service architecture design	Architecting methodology and typical service implementation on Huawei Cloud	Major driving forces for organizations to go cloud, cloud business structure design principles, requirements and business system construction of typical cloud service scenarios, and cloud-based high-availability (HA) architecture design			√	√
		Cloud compute solution design	Overview of Huawei Cloud compute services; compute solution design review based on five pillars			√	√
		Cloud storage solution design	Overview and practices of Huawei Cloud storage services; storage solution design review based on five pillars			√	√
		Cloud network solution design	Overview of Huawei Cloud network services; network solution design review based on five pillars; cases and practices of high-performance network solution design			√	√
		Cloud database solution design	Overview of Huawei Cloud database services; database solution design review based on five pillars; cases and practices of high-performance database solution design			√	√
		Cloud security solution design	Huawei Cloud security solution design and Huawei Cloud security service features for the service system access layer, service layer, data layer, access control, audit, and tracing				√
		O&M design	Huawei Cloud's comprehensive O&M solution, key O&M services, and O&M solution design and practices				√
		Distributed, high-elasticity, and DR system design	Distributed system design: Huawei Cloud distributed system design and implementation; distributed solution design and practices High-elasticity system design: Huawei Cloud elastic system design and implementation; high-elasticity solution design and practices DR system: importance of DR, definition of HA, DR solution design and practices				√
AI	AI basics	Basic AI concepts	AI-related concepts, developments, and applications	√	√	√	√
		AI technology fields	AI research fields, including computer vision, NLP, and automatic speech recognition (ASR)	√	√	√	√
		Cutting-edge AI technologies and scenarios	Cutting-edge AI technologies and scenarios, including intelligent driving, reinforcement learning, and AI agents	√	√	√	√
		Basics of large models	Definitions, developments, key technology principles, layering principles, and application of retrieval-augmented generation (RAG) in large models	√	√	√	√
	AI algorithms	Machine learning	Traditional machine learning algorithms, hyperparameter adjustment, model evaluation, and model validity (overfitting and underfitting)		√	√	√
		Deep learning	Common problems (such as gradient disappearance and unbalanced data samples) of deep learning algorithms (fully connected neural networks, CNN, RNN, and LSTM), loss functions, gradient descent, neural network computing process, optimizers and activation functions, and regularization; countermeasures for these problems		√	√	√
	Huawei AI development platform	Huawei AI full-stack, all-scenario application	Overall solution, core modules, and cases of ModelArts, an AI Cloud Service	√	√	√	√
		Huawei Cloud AI development platform usage	Including the development environment, data management, training platform, inference platform, and AI Gallery	√	√	√	√
	AI application development	Computer vision	Functions, application scenarios, cases, and calling process of the image search APIs			√	√
		Speech processing	Functions, application scenarios, cases, and calling process of the speech processing APIs			√	√
		Optical character recognition (OCR)	Functions, application scenarios, cases, and calling process of the OCR APIs			√	√
	Large models	Transformer and large models	Transformer structure, GPT architecture, multimodal large model architecture, reinforcement learning, and large model training Large model application development tools, such as Ollama, Llamaindex, LangChain, and Dify		√	√	√
		Typical applications of Huawei Pangu models	Huawei Pangu computer vision model, NLP model, multimodal model, scientific computing model, and GNN model		√	√	√
		Large model application development	Pre-training, fine-tuning, deployment, prompt optimization, and RAG application of large models; AI agents				√

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Note

This Exam Outline is for general use only. It does not cover all exam details.