



IESP® Exam Blueprint

IoT & Embedded Systems. What the exam asks, how it is scored, and what share of questions each domain carries.

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At a glance

Questions	100
Time	120 minutes
Format	100 MCQs + system diagnostics case studies, 120 minutes
Pass mark	70% scaled score
Retakes	1 retake included within 12 months
Refunds and rescheduling	Non-refundable; free reschedule up to 24h prior
Credential lasts	3 years. 45 TDUs every 3 years to renew.

Who it is for and who can sit it

Who it is for	Embedded firmware developers, IoT systems architects (2–6 years)
With a degree	Demonstrated experience with C/C++, RTOS, or industrial telemetry protocols (2+ years)
Without a degree	36 months firmware or industrial embedded systems programming

Share of questions by TPBOK domain

Domain	Share	What is covered
Architecture & Systems Design	32%  about 32 of 100 questions	Embedded memory layout, interrupts, RTOS concurrency, and low-power telemetry
Engineering Governance & Agile Delivery	16%  about 16 of 100 questions	Hardware-in-the-loop (HIL) automation, firmware regression testing, and versioning

Domain	Share	What is covered
Applied AI & Emerging Tech Integration	14%  about 14 of 100 questions	TinyML on microcontrollers, edge sensor anomaly inference, and quantization
Infrastructure & Security	30%  about 30 of 100 questions	Secure boot, cryptographic hardware roots, dual-bank OTA updates, and CAN bus isolation
People Leadership in Engineering	8%  about 8 of 100 questions	Hardware/software co-development synchronization and safety compliance audits

Focus areas

- Microcontroller firmware optimization, memory constraints, and RTOS task scheduling
- Industrial protocol integration: CAN bus, Modbus, MQTT, and CoAP telemetry
- Hardware root of trust, secure bootloaders, and tamper-resistant cryptographic chips
- Fault-tolerant Over-The-Air (OTA) firmware rollback and low-power radio communication

Scoring. Tiered standard: 65% for foundational (ATP), 70% for CTP and specialty credentials, 75% for executive leadership (PgTP, PfTP). Evaluated via psychometrically calibrated scaled scoring with no negative marking.

Rescheduling. Reschedule-only. Examination voucher fees are non-refundable once registered. However, candidates can reschedule their exam sitting free of charge up to 24 hours prior to their scheduled exam window.

IICTP is a new independent credential and is not ISO/IEC 17024 accredited. Blueprint version 1.0, 21 October 2026. Domain shares are the share of questions on each exam form. See all credentials at <https://www.iictp.org/certifications/exam-facts>.