Catalog Learned 16%

Quiz for Chapter 1

Bookmark this page

true false

4/4 points (graded)

1. The PLC technology refers to a communication mode in which data and media signals are transmitted using power lines.

- (•) true ✔
- ( ) false

2. NB-IoT focuses on IoT and features wide coverage, low power consumption, high rate, and massive connections.

- ( ) true
- (•) false ✔

Submit You have used 1 of 1000 attempts

✔ Correct (4/4 points)

Single choice

8/8 points (graded)

1. Which of the following is a network layer function of the IoT?

- ○ Data presentation and customer interaction
- ○ Device communication management, data storage, and service planning
- ◉ Terminal access and data transmission ✔
- ○ Information collection and signal processing

2. Which of the following statements is incorrect about characteristics and application scenarios of communication technologies?

- ○ The bandwidth of LTE-V is greater than 10 Mbit/s, which is applicable to Internet of Vehicles (IoV) scenarios.
- ◉ Video surveillance data is usually transmitted through GPRS. The bandwidth is about 1 Mbit/s. ✔

- The bandwidth of eMTC is 1 Mbit/s, which is applicable to the access of intelligent wearable devices.
- The bandwidth of NB-IoT is less than 100 kbit/s. NB-IoT features low power consumption, wide coverage, and suitable for meter reading services.

3. Which of the following statements is incorrect about M-BUS?

- The M-BUS adopts the OSI network model. ✔
- M-BUS supports for remote meter reading of up to 300 nodes.
- Up to 1000-meter cable is supported for M-BUS communication.
- M-BUS uses the bus topology structure for serial communication.

4. Which of the following statements is incorrect about ZigBee?

- ZigBee is a wireless communication technology with a long distance and low power consumption. ✔
- ZigBee, on the basis of IEEE802.15.4 standards, is a local area network (LAN) protocol featuring low consumption.
- ZigBee works on the unlicensed frequency band.

- ○ ZigBee is widely used in industrial and smart home fields.

Submit You have used 2 of 1000 attempts

✔ Correct (8/8 points)

Multiple choice(checkboxs)

8/8 points (graded)

1. Which of the following statements are true about differences between RS-232 and RS-485?

- ☑ RS-232 uses single-ended communication, and RS-485 uses balanced transmission.
- ☑ The transmission distance of RS-232 cannot exceed 20 m, while that of RS-485 can reach tens of meters or even kilometers.
- ☐ The RS-232 interface on a PC is called COM1, and the RS-485 interface on a PC is called COM2.
- ☑ RS-232 is applied in one-to-one communication, and RS-485 is applied in one-to-multiple communication.

✔

2. Which of the following are short-range wireless communication technologies?

- ☐ PLC

- [x] ZigBee
- [x] Z-Wave
- [ ] RS-232

✔

3. Which of the following communication technologies belong to LPWA?

- [x] NB-IoT
- [x] SigFox
- [x] LoRa
- [ ] ZigBee

✔

4. In the following communication technologies, whose frequency bands are within the unlicensed frequency band Sub-G?

- [ ] NB-IoT
- [ ] Wi-Fi

- [x] LoRa
- [x] SigFox

✔

Submit You have used 1 of 1000 attempts

✔ Correct (8/8 points)

Catalog Learned 34%

Quiz for Chapter 2

Bookmark this page

true false

4/4 points (graded)

1. The IoT connection management platform is mainly used for terminal access decoupling and capability exposure.

- (•) true ✔
- ( ) false

2. Some control messages of IoT devices are not forwarded in real time. The OceanConnect platform stores these control messages.

- (•) true ✔
- ( ) false

Submit You have used 1 of 1000 attempts

✔ Correct (4/4 points)

Single choice

8/8 points (graded)

1. In device management, which of the following protocols is used by SP Portal to deliver messages to DM Server?

- (•) HTTPS ✔
- ( ) MQTT
- ( ) CoAP
- ( ) SMTP

2. Which of the following is not a OceanConnect portal?

- ( ) SP Portal
- (•) User Portal ✔

- Operation Portal
- OSS Portal

3. Which of the following is not a OceanConnect service procedure? (D)

- Northbound registration process
- Southbound registration process
- Northbound message reporting ✔
- Southbound message reporting

4. Which of the following is not a step in northbound registration procedure? (D)

- Log in to the SP portal.
- Upload profile files.
- Upload the codec plug-in.

- (•) After the power-on and connection to the Internet, the IoT device initiates a registration procedure to OceanConnect. ✔

Submit You have used 1 of 1000 attempts

✔ Correct (8/8 points)

Multiple choice(checkboxs)

8/8 points (graded)

1. Which of the following statements about MQTT and CoAP are correct?

- [x] MQTT, on the basis of the TCP/IP protocol, works in publish/subscribe mode.
- [x] MQTT uses long connections and has a heartbeat keepalive mechanism. The power consumption is relatively high.
- [x] CoAP, on the basis of the UDP/IP protocol, works in request/response mode.
- [ ] CoAP uses long connections and does not have a heartbeat keepalive mechanism. The power consumption is relatively low.

✔

2. Which of the following functions are supported by the service enablement layer of OceanConnect?

- [ ] Asset and device management
- [ ] SIM card connection management
- [x] Data management
- [x] API openness management

✔

3. What of the following are OceanConnect characteristics?

- [x] Access-independent
- [x] Reliable
- [x] Elastically scalable
- [x] Capability-exposed

✔

4. Which of the following statements are correct about components in the OceanConnect logical architecture?

- [x] IoCM manages connection status and controls command forwarding.

- [ ] DM Server manages data.
- [x] MongoDB stores IoT device information.
- [x] CIG provides adaptation of terminal access protocols.

✔

Submit You have used 2 of 1000 attempts

Your answers have been saved but not graded. Click 'Submit' to get the score.

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Quiz for Chapter 3

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true false

4/4 points (graded)

1. The MCL value of NB-IoT is 164, which increases by 30 dB compared with GPRS.

- ○ true
- ◉ false ✔

2. Frequency hopping allows the physical channel for uplink data transmission to change constantly, avo sustained interference.

- ◉ true ✔
- ○ false

Submit You have used 1 of 1000 attempts

✔ Correct (4/4 points)

Single choice

8/8 points (graded)

1. Which of the following is the system frequency bandwidth of NB-IoT?

- ○ 12 kHz
- ○ 15 kHz
- ○ 60 kHz
- ◉ 180 kHz ✔

2. Which of the following deployment modes is used to deploy NB-IoT on the refarmed GSM frequency b

- ◉ Standalone deployment ✔
- ○ Guardband deployment

- ○ In-band deployment
- ○ Out-of-band deployment

3. Which of the following is not the advantage of small-packet fast transmission?

- ○ Higher uplink transmission efficiency
- ○ Shorter time for terminals to send data
- ○ Lower power consumption of terminals
- ◉ Longer data transmission distance ✔

4. Which of the following NE cannot be managed by the eLTE-IoT network management device?

- ○ Service engine
- ○ AirNode
- ◉ eLTE-IoT communication module ✔
- ○ Customer premise equipment (CPE)

Submit You have used 5 of 1000 attempts

✔ Correct (8/8 points)

Multiple choice(checkboxs)

8/8 points (graded)
Which of the following NEs belong to the NB-IoT core network?

- ☑ Mobility management entity (MME)
- ☑ Home subscriber server (HSS)
- ☑ Serving gateway (S-GW)
- ☑ PDN gateway (P-GW)

✔

2. Which of the following statements are correct about NB-IoT uplink and downlink telecommunication technologies?

- ☑ SC-FDMA is used for uplink transmission, and OFDMA is used for downlink transmission.

- [ ] For the same transmit power, multi-tone provides higher power spectral density (PSD) increment th single-tone.
- [x] The OFDMA technology is the combination of OFDM and FDMA.
- [ ] Multi-tone is mandatory for terminal devices while single-tone is optional.

✔

3. Which of the following provide NB-IoT with the ultra-low power consumption?

- [x] PSM
- [ ] Higher power spectral density (PSD)
- [x] eDRX
- [ ] Repeated transmission

✔

4. Which of the following scenarios can eLTE-IoT apply to?

- [x] Production status visualization and energy efficiency management in the manufacturing industry
- [x] Real-time power grid status monitoring
- [x] Remote intelligent metering for water companies
- [x] Smart city utilities access to the network

✔

Submit You have used 2 of 1000 attempts

✔ Correct (8/8 points)

Quiz for Chapter 4

Bookmark this page

true false

4/4 points (graded)

1. If there is a large transformer near the PLC environment, the transformer might cause serious noise interference on communications.

- (•) true ✔
- ( ) false

2. The smart home network consists of the basic broadband network and intelligent interconnection network. The smart home accesses broadband networks of carriers.

- (•) true ✔
- ( ) false

Quiz

5. Operating System, Lightweight and Open-

Final Exam

Submit You have used 1 of 1000 attempts

✔ Correct (4/4 points)

Single choice

8/8 points (graded)

1. Which of the following statements about the RF Mesh is incorrect?

- RF Mesh is a Mesh technology based on the RF technology.
- The RF Mesh can relay signals to extend the wireless coverage.
- The RF Mesh physical layer complies with the IEEE 802.15.4 standards.
- The RF Mesh transmission layer complies with the TCP protocol to ensure reliable connections and implement neighbor discovery. ✔

2. Which of the following statements about the EEM is incorrect?

- EEM is a platform developed based on Huawei Agile Controller.
- EEM provides GIS-based map surveillance. ✔

- EEM is able to manage terminal devices and provide remote upgrades.
- EEM manages plans and policies.

3. Which of the following statements about Huawei illumination IoT solution is incorrect?

- The perception layer uses the external street lamp controller AR501L1Rc.
- With the RF Mesh technology, the network layer connects to the IoT gateway for data backhaul.
- At the platform layer, Huawei OceanConnect platform based on Agile Controller is used. ✔
- The application layer performs data statistics, monitoring, and O&M through the CityConnect platform.

4. Which of the following statements about the home network development is incorrect?

- The home network topology gradually changes from point to star and then to mesh.
- More and more relative services are provided with the home network development.
- High bandwidth is an important service for the home network.

- (•) On the home network, to broaden Wi-Fi coverage, the single-gateway centralized Wi-Fi coverage mode is used. ✔

Submit You have used 7 of 1000 attempts

✔ Correct (8/8 points)

Multiple choice(checkboxs)

8/8 points (graded)

1. Which of the following statements are correct about Huawei industrial IoT gateway?

- [x] The industrial IoT gateway belongs to the network layer and is responsible for downlink aggregation and uplink backhaul.
- [ ] The industrial gateway has no strict requirements on the operating temperature but must be dustproof, waterproof, and anti-electromagnetic.
- [x] The industrial IoT gateway supports the access of industrial buses, such as RS485 and M-BUS.
- [x] The industrial IoT gateway is a converged gateway that integrates routing, switching, wireless communication, and security functions.

✔

2. Which of the following statements about edge computing are true?

- [x] In edge computing, edge refers to computing nodes near terminal devices or data source.
- [ ] With edge computing, all services and data on the terminal side can be processed.
- [ ] Services and data do not need to be transmitted to the platform after being processed by edge computing.
- [x] Edge computing can meet users' real-time and intelligent data storage requirements.

✔

3. Which of the following are application modules in Huawei power IoT solution?

- [x] Billing
- [x] Prepay
- [x] Customer relationship management (CRM)
- [x] Meter data management (MDM)

✔

4. Which of the following are key services provided by the smart home gateway?

- [x] Smart acceleration

- [x] Seamless coverage of home Wi-Fi
- [x] Intelligent interconnection
- [x] Intelligent O&M

✔

Submit You have used 3 of 1000 attempts

✔ Correct (8/8 points)

Quiz for Chapter 5

Bookmark this page

true false

4/4 points (graded)

1. Interruption refers to the process in which the CPU stops to execute a new program.

- (•) true ✔
- ( ) false

2. APIs of Huawei LiteOS shield underlying differences and is compatible with Linux, making development easier for developers.

- ( ) true
- (•) false ✔

Submit You have used 2 of 1000 attempts

✔ Correct (4/4 points)

Single choice

8/8 points (graded)

1. Which of the following statements about Huawei LiteOS memory management is incorrect?

- LiteOS supports dynamic memory management. It allocates memory with the size specified by the user from the memory pool.
- Dynamic memory management has the advantages of on-demand allocation and support for the DLINK algorithm.
- LiteOS supports static memory management. It allocates memory with the size preset during initialization from the memory pool.
- Static memory management features high efficiency of memory allocation and release, on-demand application, and support for the BOX algorithm. ✔

2. Which of the following statements about Huawei LiteOS time management is correct?

- The system can identify the relative time and absolute time through the time management module of the LiteOS kernel.

- The system can identify the relative time and absolute time through the MCU clock source.
- Minimum CPU fragmentation (that is, time-based CPU fragmentation scheduling) can be performed for each task. ✔
- The time unit of task latency is a tick, with a default value of 1 ms.

3. Which function is not provided by the sensor hub of Huawei LiteOS?

- Unified sensor program code ✔
- Unified driver interface
- Unified sensor interaction management
- Unified sensor algorithm library

4. Which of the terminal security is not provided by the security framework of Huawei LiteOS?

- Secure storage
- Key management

- ○ Safe ID
- ◉ DTLS ✔

Submit You have used 1 of 1000 attempts

✔ Correct (8/8 points)

Multiple choice(checkboxs)

8/8 points (graded)

1. In which of the following solutions, Huawei LiteOS is used?

- ☑ Smart household solution
- ☑ Smart water meter solution
- ☑ Smart parking solution
- ☑ Smart illumination solution

✔

2. What functions does the task module of the Huawei LiteOS kernel provide?

- [x] Task creation
- [x] Task deletion
- [ ] Task modification
- [x] Task delay

✔

3. From which of the following modules, the message queue module (message structure is a data structure) can receive messages with unfixed length?

- [x] Task
- [ ] Memory
- [ ] Semaphore
- [x] Interruption

✔

4. Which of the following protocol stacks does the interconnection framework of Huawei LiteOS provide?

- [ ] AMQP

- [x] CoAP
- [x] TCP/IP
- [ ] HTTPS

✔

Submit You have used 3 of 1000 attempts

✔ Correct (8/8 points)