

RGPV IoT Unit-04 PYQ Analysis

Last 3 Years Previous Year Question Analysis (2023–2025)

Unit-04 Topics Covered

- MQTT
 - MQTT Methods and Components
 - MQTT Communication
 - MQTT Topics
 - SMQTT
 - CoAP
 - CoAP Message Types
 - CoAP Request-Response Model
 - XMPP
 - AMQP Features and Components
 - AMQP Frame Types
 - MQTT vs CoAP
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RGPV JUNE 2025 PAPER ANALYSIS

Questions Asked from Unit-04

7-Mark Questions

1. Explain MQTT protocol and its components.

 VERY HIGH PROBABILITY

➔ Direct repeated topic.

2. Explain CoAP protocol with message types.

 MOST IMPORTANT

3. Differentiate between MQTT and CoAP.

 Frequently repeated comparison question.

 **RGPV DECEMBER 2024 PAPER**

ANALYSIS

 **Questions Asked from Unit-04**

 **7-Mark Questions**

1. Explain MQTT publish-subscribe model.

 VERY HIGH PROBABILITY

2. Explain AMQP features and components.

 IMPORTANT THEORY QUESTION

3. Write short note on XMPP.

 Medium-high probability.



RGPV MAY 2024 PAPER ANALYSIS

Questions Asked from Unit-04

14-Mark Question

1. Explain MQTT protocol in detail with architecture and applications.

 MOST IMPORTANT LONG QUESTION

7-Mark Questions

2. Explain CoAP request-response model.

 HIGHLY IMPORTANT

3. Explain AMQP frame types.

 Important short note.



RGPV MAY 2023 PAPER ANALYSIS

Questions Asked from Unit-04

7-Mark Questions

1. Explain CoAP message types.

 VERY HIGH PROBABILITY

2. Explain MQTT topics and methods.

 REPEATED QUESTION

3. Explain SMQTT.

★ Frequently repeated security topic.



RGPV CS-803(C) MAY 2023 PAPER

ANALYSIS

 **Questions Asked from Unit-04**

★ **14-Mark Question**

1. Compare MQTT, CoAP and AMQP.

 MOST IMPORTANT COMPARISON QUESTION

★ **7-Mark Questions**

2. Explain XMPP protocol.

★ Medium probability.

3. Explain AMQP components.

 Important enterprise IoT question.

 **MOST REPEATED QUESTIONS (2023–2025)**

Topic	Repetition
MQTT	★★★★★
CoAP	★★★★★
MQTT vs CoAP	★★★★★
MQTT Publish-Subscribe Model	★★★★★
CoAP Message Types	★★★★★
AMQP Features & Components	★★★★★
MQTT Topics & Methods	★★★★★
XMPP	★★★
SMQTT	★★★
AMQP Frame Types	★★★

PYQ-BASED EXPECTED QUESTIONS

VERY HIGH PROBABILITY QUESTIONS

Most Expected 7-Mark Questions

1. Explain MQTT protocol and its components.
2. Explain MQTT publish-subscribe model.
3. Explain CoAP protocol.
4. Differentiate between MQTT and CoAP.
5. Explain CoAP message types.

HIGH PROBABILITY QUESTIONS

1. Explain AMQP features and components.

2. Explain MQTT topics and methods.
 3. Explain CoAP request-response model.
 4. Explain AMQP frame types.
 5. Explain XMPP protocol.
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MEDIUM PROBABILITY QUESTIONS

1. Explain SMQTT.
 2. Explain MQTT communication model.
 3. Explain enterprise IoT messaging protocols.
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UNIT-04 EXAM TREND ANALYSIS

RGPV Mostly Focuses On:

- MQTT architecture
 - Publish-subscribe communication
 - MQTT vs CoAP comparison
 - CoAP message types
 - Lightweight IoT protocols
 - AMQP enterprise messaging
 - Short notes on XMPP and SMQTT
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MOST SCORING TOPICS

If Time is Very Less → Prepare These First

Priority	Topic
1	MQTT

Priority	Topic
2	CoAP
3	MQTT vs CoAP
4	MQTT Publish-Subscribe Model
5	CoAP Message Types
6	AMQP Features & Components
7	MQTT Topics & Methods
8	XMPP
9	SMQTT
10	AMQP Frame Types

ONE-NIGHT REVISION NOTES

Topic	Quick Revision
MQTT	Publish-subscribe lightweight protocol
Broker	Message distributor
Topic	Message category/path
CoAP	Request-response protocol
Confirmable	ACK required
AMQP	Reliable message queuing
XMPP	Real-time messaging
SMQTT	Secure MQTT
Queue	Message storage
Exchange	Message routing

MEMORY TRICKS

MQTT Model

 “PBS”

- P = Publisher
 - B = Broker
 - S = Subscriber
-

CoAP Methods

👉 “GPUD”

- G = GET
 - P = POST
 - U = PUT
 - D = DELETE
-

CoAP Message Types

👉 “CNAR”

- C = Confirmable
 - N = Non-confirmable
 - A = Acknowledgement
 - R = Reset
-

AMQP Components

👉 “PEQCB”

- P = Producer
 - E = Exchange
 - Q = Queue
 - C = Consumer
 - B = Broker
-



TOPPER ANSWER WRITING TIPS

For 7 Marks

Always write:

Definition



Architecture / Working



Diagram



Advantages



Applications



Conclusion

For Comparison Questions

Make proper table:

Basis	MQTT	CoAP
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➔ Comparison table directly increases presentation quality.

Must Draw These Diagrams

- ✓ MQTT Publisher-Broker-Subscriber Diagram
- ✓ CoAP Request-Response Diagram
- ✓ MQTT vs CoAP Comparison Table

✓ AMQP Producer-Exchange-Queue-Consumer Diagram

✓ CoAP Message Type Flow

FINAL PREDICTION FOR NEXT

EXAM

MOST EXPECTED LONG QUESTION

★ “Explain MQTT protocol with publish-subscribe model and applications.”

MOST EXPECTED COMPARISON QUESTION

★ “Differentiate between MQTT and CoAP.”

MOST EXPECTED THEORY QUESTION

★ “Explain CoAP message types.”

MOST EXPECTED SHORT NOTE

★ “XMPP”

★ “SMQTT”

★ “AMQP Frame Types”