RIPv1 and RIPv2:

1. What is the Destination-MAC-Address of a RIPv1 Response-Packet?

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2. What is the Destination-IP-Address of a RIPv1 Response-Packet?

3. Which Transport-Layer Protocol is used to transport the RIP Data?  
  
RIP nutzt [User Datagram Protocol](http://en.wikipedia.org/wiki/User_Datagram_Protocol) (UDP) als Transport Protocol

4. What Destination Port is used for the RIP Data?

Destination port 520.

5. In which RFC is RIPv1 published?

The original specification of RIP, defined in [RFC 1058](http://tools.ietf.org/html/rfc1058)  
RFC 1058

RIPv2:

6. What is the Destination-MAC-Address of a RIPv2 Response-Packet?

Die ziel ist das nächste gerät zum host MAC-Address

7. What is the Destination-IP-Address of a RIPv2 Response-Packet?

IPv4 destination address

8. How is a Multicast-MAC-Address generated?

 MAC addresses for multicasting as Ethernet

9. Which IP-Address space is reserved for multicast?

IPv4 reserves some addresses for special purposes such as [private networks](http://en.wikipedia.org/wiki/Private_network) (~18 million addresses) or [multicast addresses](http://en.wikipedia.org/wiki/Multicast_address)(~270 million addresses).

IPv4 reserviert einige Adressen für spezielle Zwecke wie private Netzwerke oder Multicast Adressen.

10. What Networks does R2 propagate to R1 using RIP?

Über RIP warden die Daten ueber UDP übertragen.

11. What extra fields are found in RIPv2 compared to RIPv1?

RIPv2 is classless routing and it support VLSM (Variable Length Subnet Masking).   
RIPv1 is a classful routing protocol and it does not support VLSM

RIPv2 ist klassenlos Routing Protocol und unterstützt VLSM (Variable Length Subnet Masking). RIPv2 unterstützt die Authentisierung zwischen Routers.   
RIPv1 ist klassenvoll Routing Protocol und unterstützt nicht VLSM.

12. Why is the Address in the Next-Hop Field 0.0.0.0? (Search for an answer in the RFC for RIPv2.)

Specifying a value of 0.0.0.0 in this field indicates that routing should be via the originator of the RIP advertisement. An address specified as a next hop must, per force, be directly reachable on the logical subnet over which the advertisement is made.

Die Angabe eines Wert von 0.0.0.0 in dem Next-Hop Field zeigt, dass Routing sollte die Urheber der RIP Anzeige sein. Eine Adresse die spezifisiert sich als Next-Hop muss direkt erreichbar sein auf der logischen Subnetz, über die die Anzeige gemacht wird.

13. Why is RIPv2 switched to the Multicast-address 224.0.0.9. (Search for an answer in the RFC for RIPv2.)

In order to reduce unnecessary load on those hosts which are not listening to RIP-2 messages, an IP multicast address will be used for periodic broadcasts.

IP multicast address 224.0.0.9 wird wie periodic broadcasts benutzt um zu die unnötige Ladungen auf diesen Host zu reduzieren.