Q1. Which type of routing requires manual entry of routes into the router?

A. Dynamic Routing
B. Static Routing
C. Default Routing
D. Hybrid Routing

Q2. Which dynamic routing protocol uses hop count as its only metric?

A. OSPF
B. EIGRP
C. RIP
D. BGP

Q3. What is the administrative distance of a static route?

A. 90
B. 100
C. 1
D. 120

Q4. RIP has a maximum hop count of:

A. 10
B. 15
C. 30
D. 255

Q5. Which protocol is Cisco proprietary?

A. RIP
B. OSPF
C. EIGRP
D. IS-IS

Q6. OSPF operates using which algorithm?

A. Dijkstra SPF
B. Bellman-Ford
C. Floyd–Warshall
D. Random path selection

Q7. The default administrative distance of OSPF is:

A. 90
B. 110
C. 120
D. 1

Q8. Which routing protocol is distance-vector?

A. OSPF
B. EIGRP
C. RIP
D. IS-IS

Q9. Static routes do NOT:

A. Consume CPU
B. Automatically update
C. Provide full control
D. Increase security

Q10. The command to verify routing table in Cisco IOS is:

A. show ip protocols
B. show interfaces
C. show ip route
D. show startup-config

☑ SECTION B — MEDIUM (15 MCQs)

Q11. In RIP, what is used to prevent routing loops?

A. Link-state updates
B. Split horizon
C. Stub areas
D. Designated router

Q12. EIGRP uses which metric components by default?

A. Hop count only
B. Bandwidth + Delay
C. Delay + Load
D. MTU + Reliability

Q13. A static route configured with the next-hop IP only is known as:

A. Fully specified static route
B. Recursive static route
C. Directly connected static route
D. Floating static route

Q14. What is a characteristic of OSPF areas?

A. Area 0 must be the backbone
B. RIP is used inside areas
C. Areas must be separated by EIGRP
D. Every router must be ABR

Q15. IGRP has a default maximum hop count of:

A. 100
B. 250
C. 255
D. 200

Q16. Which packet type establishes neighbor adjacency in OSPF?

A. LSA
B. Hello Packet
C. ACK Packet
D. DBD Packet

Q17. EIGRP uses which algorithm for path calculation?

A. SPF
B. Bellman-Ford
C. DUAL
D. BFS

Q18. What is the purpose of a *floating static route*?

A. Default routing
B. Load balancing
C. Backup route
D. Equal-cost multipath

Q19. Which LSA type is generated by a Designated Router (DR) in multi-access networks?

A. Type 1
B. Type 2
C. Type 3
D. Type 5

Q20. RIP version 2 supports which feature not available in version 1?

A. Classful routing
B. Broadcast updates
C. Multicast updates
D. Triggered updates

Q21. EIGRP uses which protocol to transport routing information?

A. TCP
B. UDP
C. RTP
D. ICMP

Q22. What does OSPF use to uniquely identify routers?

A. Area ID
B. Router ID
C. MAC Address
D. Domain ID

Q23. Which command is used to advertise a network in OSPF?

A. network … area …
B. redistribute ospf
C. router-id set
D. show ospf neighbors

Q24. The metric used by IGRP includes:

A. Bandwidth + delay + reliability + load
B. Hop count
C. Bandwidth only
D. Delay only

Q25. In EIGRP, which table stores all received routes regardless of their feasibility?

A. Routing table
B. Topology table

C. Neighbor table
D. Configuration table

☑ SECTION C — HARD (15 MCQs)

Q26. In OSPF, which LSA type is used to advertise external routes redistributed into OSPF?

A. Type 3
B. Type 4
C. Type 5
D. Type 7

Q27. What condition must be met for an EIGRP route to be considered a *feasible successor*?

A. Successor's metric must be lower than FD
B. Reported distance < feasible distance
C. Feasible distance < reported distance
D. Must be learned from different AS

Q28. In OSPF, an ABR performs which function?

A. Summarizes LSAs between areas
B. Connects OSPF to EIGRP
C. Runs RIP inside areas
D. Performs NAT

Q29. Which problem occurs when static routes are inconsistent on two routers in a redundant setup?

A. Poison reverse
B. Black-holing
C. Count-to-infinity
D. Route flapping

Q30. What is the OSPF router role responsible for generating Type 4 LSAs?

A. ASBR
B. DR
C. ABR
D. BDR

Q31. Why is RIP considered unsuitable for large networks?

A. Complex configuration
B. High convergence time
C. Uses DUAL algorithm
D. Doesn't support IPv6

Q32. In EIGRP, the "SRTT" value indicates:

A. Average task time
B. Smooth Round Trip Time between neighbors
C. Successor Route Time Table
D. Serialized Routing Table Timer

Q33. When an OSPF router receives an LSA with a higher sequence number, it:

A. Discards it
B. Replaces the old LSA
C. Forwards it without installation
D. Generates a new LSA

Q34. Which feature allows EIGRP to support unequal load balancing?

A. K-values
B. Variance
C. DUAL algorithm
D. Feasibility condition

Q35. The purpose of OSPF *virtual links* is to:

A. Connect non-backbone areas to area 0
B. Provide encryption
C. Upgrade to OSPFv3
D. Enable DR/BDR elections

Q36. What occurs when EIGRP detects there is no feasible successor?

A. Sends multicast hello only
B. Goes into active state
C. Deletes the route
D. Uses RIP fallback

Q37. Which OSPF feature reduces LSA flooding in large multi-access networks?

A. Split horizon
B. DR/BDR
C. Poison reverse
D. Stub area

Q38. The OSPF cost formula (default) is:

A. 100 / link speed
B. 10000 / bandwidth
C. 10^8 / bandwidth
D. 100000 / delay

Q39. What stable topology identifier allows EIGRP to form fast neighbors after reloads?

A. RID
B. SRTT
C. Hold Timer
D. Router-ID + autonomous system

Q40. Which area type in OSPF blocks Type 5 LSAs but allows a single default route?

A. Stub area
B. Totally stubby area
C. NSSA
D. Backbone area