1. Which of these features are supported by Elastic Load Balancing (ELB)?
   A. Offload TLS Encryption and Decryption
   B. Monitor health of EC2 instances
   C. Add or Remove EC2 instances based on need
   D. All the above
2. In Elastic Load Balancer, how are incoming requests distributed when Cross-Zone load balancing is enabled?
   A. Traffic is balanced across enabled availability zones
   B. Traffic is balanced across all registered instances
3. When an Elastic Load Balancer detects an unhealthy instance, it performs some of the listed actions. Which is NOT performed by an ELB?
   A. Stops routing traffic to that instance
   B. Stops the instance and replaces with a new instance
   C. Continuously checks the health of the instance
   D. Resumes traffic when the instance is healthy again
4. ELB has five registered EC2 instances in Availability Zone A and another five registered EC2 instances in Availability Zone B. You notice that traffic is routed only to instances in availability zone A and instances in B are not used. How do you correct this?
   A. Ensure Availability Zone B is added to the load balancer
   B. Ensure Cross zone load balancing is enabled
5. You would like to terminate TLS at the load balancer. What load balancing products support this?
   A. Classic
   B. Application
   C. Network
   D. All the above
6. You have a client application that can talk only to whitelisted IP Addresses.
   Which of these architectural options would reliably allow whitelisting of Load balancer IP addresses at the client?
   A. Classic
   B. Application
   C. Network
   D. All the above
7. You would like to distribute traffic in a hybrid infrastructure consisting of web servers in both AWS and On-Premises data center. Which load balancing product can be used for this requirement?
   A. Classic and Application
   B. Application and Network
   C. Classic and Network
   D. Hybrid routing is not supported in ELB
8. Which products support Layer 4 load balancing?

A. Classic and Application
B. Application and Network
C. Classic and Network
D. Layer 4 load balancing is not supported

Answers:

1. D - ELB can offload TLS encryption and decryption work from your webservers and you can centrally manage the TLS configuration. Using ELB health checks you can route traffic only to healthy instances. You can add or remove instances in an ELB based on your application specific needs
2. B - If cross-zone load balancing is enabled, the load balancer distributes traffic evenly across all registered instances in all enabled Availability Zones. When it is disabled, traffic is evenly distributed across availability zones
3. B - When the load balancer detects an unhealthy instance, it stops routing traffic to that instance. It continuously monitors the health and resumes routing traffic when instance is healthy again. It does not stop or replace instances
4. A – ELB distributes traffic only to the availability zones that you add to ELB
5. D - TLS termination is supported by classic, application and network load balancers. NOTE: Network load balancer TLS termination feature was released in Jan 2019. https://aws.amazon.com/about-aws/whats-new/2019/01/network-load-balancer-now-supports-tls-termination/
6. C - Network Load Balancer is the only product that assigns a static IP address per availability zone where it is deployed.   You can use this static IP address to configure your client application. DNS lookup of Application and Classic Load Balancer Names would return a list of load balancer nodes that are valid at that time; however, this list can change depending on the load on the system. So, for application and classic load balancers, you should always refer the load balancer by DNS name
7. B - Both Application and Network Load Balancers allow you to add targets by IP address. You can use this capability to register instances located on-premises and VPC to the same load balancer. Do note that instances can be added only using private IP address and on-premises data center should have a VPN connection to AWS VPC or a Direct Connect link to your AWS infrastructure
8. C - Layer 4 load balancing is supported only Classic and Network Load Balancers