Your 3-gits: ____________

#1: PGP

(a) PGP is a security protocol for e-mails
(b) PGP is a security protocol for FTP
(c) PGP is a security protocol for telnet
(d) PGP is a security protocol for web applications

**Solution:** (a)

#2: RADIUS

(a) RADIUS offers a tunneling function in the data-link layer to prevent traffic analyses by attackers.
(b) RADIUS offers node authentication, encrypted communication, detection of unauthorized message modifications in the transport layer in operating systems.
(c) RADIUS is a security protocol for protecting signal transmissions (release of message contents and unauthorized modifications of message contents) for data transmissions using PPP protocol.
(d) RADIUS is a networking protocol that provides centralized authentication, authorization, and accounting management for users who connect and use a network service.

**Solution:** (d)
#3: L2TP

(a) L2TP is an integrated security protocol, which encrypts message contents and authentication of network host computers in the transport layer.

(b) L2TP provides tunneling service for data-link layer network traffic as those carried by PPP using UDP.

(c) L2TP is an integrated security protocol, which encrypts message contents and authentication of network host computers in the network layer.

(d) L2TP adds user authentication to SMTP, which (SMTP) does not have any user authentication function to enhance security at e-mail servers.

**Solution:** (b)

#4: APOP

(a) APOP improves security for e-mail, especially by protecting the authentication of e-mail clients to login to an e-mail server.

(b) APOP protects e-mail servers from DoS attacks to those e-mail servers, which target the user-login process at e-mail protocol, POP-3.

(c) APOP protects the contents in e-mail messages by encrypting e-mail contents and by detecting unauthorized modifications of message contents.

(d) APOP improves security for e-mail, by detecting malicious codes or viruses attached to e-mails, which the standard e-mail protocol, POP-3 does not provide.

**Solution:** (a)