**(a) Five common BIOS/UEFI settings and their purposes (5 marks)**

1. **Boot Order / Boot Priority**
   Determines which device the system attempts to boot from first e.g HDD/SSD, USB, DVD. This ensures the correct operating system drive is loaded.
2. **Date and Time Configuration**
   Sets the system's real-time clock to ensure accurate timestamps for files, logs and scheduled system tasks.
3. **SATA / Storage Configuration (IDE, AHCI, RAID)**
   Selects how the storage controller communicates with drives. AHCI enables advanced features like NCQ and faster performance; RAID allows array configuration for redundancy or performance.
4. **Security Settings (Password, Secure Boot, TPM)**
   Used to protect the system from unauthorized access and enhance security e.g enabling Secure Boot to prevent unsigned or malicious OS loaders.
5. **Hardware Configuration and Enabling/Disabling Devices**
   Allows enabling, disabling or configuring onboard components such as integrated graphics, network adapters, virtualization (Intel VT-x / AMD-V), or USB controllers.

**(b) Procedure for updating BIOS/UEFI firmware + precautions (2 marks)**

**Procedure:**

1. Identify motherboard model/version and download the correct, latest BIOS/UEFI update from the manufacturer's official website.
2. Read the release notes and instructions carefully.
3. Prepare a stable update method — commonly through manufacturer's built-in BIOS update utility using a USB flash drive.
4. Run the update utility, select the update file and allow the flashing process to complete without interruption.
5. Restart the computer and load default optimized settings if required.

**Precautions:**

- Ensure uninterrupted power supply (use UPS if possible) to avoid corruption.
- Never power off, restart or remove the USB drive during the flashing process.
- Only use official manufacturer firmware to avoid incompatibility or bricking.

**(c) Three common BIOS/UEFI boot problems, causes, and troubleshooting steps (3 marks)**

| Problem | Possible Cause(s) | Troubleshooting Steps |
|---|---|---|
| **No bootable device / Operating system not found** | Incorrect boot order, disconnected or unrecognized drive, corrupted OS | Check boot sequence, verify drive detection in BIOS, ensure cables are connected, repair or reinstall OS |
| **System time and settings lost after every restart** | CMOS battery failure | Replace CMOS battery (usually CR2032), reconfigure BIOS settings, save and reboot |
| **Frequent crashes or failure to start after BIOS update** | Incorrect or corrupted BIOS firmware | Reset BIOS using jumper/CMOS clear, reflash correct firmware, seek vendor support if system is bricked |