1. Use the Caesar cipher with shift +10 to encrypt the following message:

HELLO WORLD

ROVVY GYBVN

2. You have received the following message which was encrypted using the Caesar cipher with shift +14. Decrypt the message back to plain text.

HVS UFCID DFCXSQH WG RIS CB TFWROM

THE GROUP PROJECT IS DUE ON FRIDAY

3. Use the Decimation cipher with key k=7 to encrypt the following message:

ATTACK AT DAWN

GJJGUY GJ BGET

4. You have received the following message which was encrypted using the Decimation cipher with key k = 5. Decrypt the message back to plaintext. HINT: $5^{-1} = 11 \mod 26$.

EJWAV DEOY

ABOUT FACE

E: $5 \times 21 = 105 = 1 \mod 26$ (A)
J: $10 \times 21 = 210 = 2 \mod 26$ (B)
W: $23 \times 21 = 483 = 15 \mod 26$ (O)

etc.
5. You intercepted the text below, which was encrypted with a mixed alphabet substitution cipher. Note: the original spacing was removed to make decryption more challenging. Decrypt the text back to plaintext.

PCAZS CQVV YSCGUC PKVSP CAZSC QVAGB

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SCGUC PKVSP CAZSC QVZRV GUAPS WGKPC

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AZSCQ VZRVG UUGGL PSQJV SSPCA ZSCQV

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VFQXQ GUYVL PVUPC AZSCQ VFQXQ QGUPJ

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XBVWI LPCEP CAZSC QVSZV SGJGU LPRQC

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PCAQS CQVSV ZSGJG UWZBN JVSSP CAZSC

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WVSFZ PBAVQ ZWTVT BCOQP JRYVU GBVIS

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AVQZJ WGCQF JRYVU GBVIS AVAVB VZLLR

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GPJRW PBVXC CGQVZ TVJAV AVBVZ LLRGP

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JRWPB VXCCQ VGQVZ BAZEP JSQGB CCQVF

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PGWCQ ZCSGK VGUPC SGJPS PVSCZ ICQGB

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WUGBR GGWGB UGBVT PLPJC QVSIF VBLZC

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PTVWV RBVVG UXGKF ZBPSG JGJLE

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(From a Tale of Two Cities by Charles Dickens)