1. **Develop a function that takes a text and a list of forbidden words. Replace all occurrences of these forbidden words with asterisks (*) using regular expressions.**

```
import re
def censor_text(text, forbidden_words):
    for word in forbidden_words:
        pattern = re.compile(re.escape(word), re.IGNORECASE)
        text = pattern.sub('*' * len(word), text)
    return text

text = "This is a secret message. Don't share this message."
forbidden = ["secret", "message"]
print(censor_text(text, forbidden))
```

2. **Create a function that extracts all the dates from a given text using regular expressions. Dates can be in various formats like MM/DD/YYYY, DD-MM-YYYY, or written out like January 1, 2023. Extract all such date occurrences.**

```
import re
def extract_dates(text):
    pattern = r'(\d{2}/\d{2}/\d{4})|(\d{2}-\d{2}-\d{4})|([A-Z][a-z]+ \d{1,2}, \d{4})'
    matches = re.findall(pattern, text)
    dates = [''.join(match) for match in matches]
    return dates

text = "Important dates are 12/05/2023, 01-01-2024 and January 1, 2025."
print(extract_dates(text))
```

3. **Develop a function that counts the occurrences of each word in a given text. Use regular expressions to split the text into words and then count the frequency of each word.**

```
import re
from collections import Counter

def word_count(text):
    words = re.findall(r'\b\w+\b', text.lower())
    return dict(Counter(words))

text = "Python is great. Python is easy to learn. Learn Python!"
print(word_count(text))
```

4. **Write a function that extracts all the URLs from a given text using regular expressions. Return a list of URLs found in the input text.**

```
import re
def extract_urls(text):
    pattern = r'https?://[^\s,"]+'
    return re.findall(pattern, text)

text = "Visit our site at https://example.com or follow http://test.org for more info."
print(extract_urls(text))
```

5. **Write a Python function that takes an email address as input and uses a regular expression to validate if it is a valid email address. The function should return True for valid emails and False for invalid ones.**

```
import re
def is_valid_email(email):
    pattern = r'^[\w\.-]+@[\w\.-]+\.\w{2,}$'
    return bool(re.match(pattern, email))

print(is_valid_email("test@example.com"))
print(is_valid_email("invalid-email"))
```