```
# 1. Electricity bill based on slab rates
def calculate_bill(units):
    if units <= 100:
        return units * 1.0
    elif units <= 200:
        return (100 * 1.0) + (units - 100) * 1.5
    elif units <= 300:
        return (100 * 1.0) + (100 * 1.5) + (units - 200) * 2.0
    else:
        return (100 * 1.0) + (100 * 1.5) + (100 * 2.0) + (units - 300) * 2.5

print(calculate_bill(350))
```

```
575.0
```

```
# 2. List students who passed both exams
def check_pass(data):
    passed = [name for name, m in data.items() if m[0] >= 30 and m[1] > 20]
    print(passed)

check_pass({"Sree": [35, 25], "Ram": [25, 40]})
```

```
['Sree']
```

```
# 3. Randomly select five members for two teams
import random
def select_teams():
    apps = ['A', 'B', 'C', 'D', 'E', 'F', 'G', 'H', 'I', 'J']
    random.shuffle(apps)
    print("Positive:", apps[:5], "Negative:", apps[5:])

select_teams()
```

```
Positive: ['C', 'A', 'I', 'E', 'H'] Negative: ['J', 'D', 'G', 'B', 'F']
```

```
# 4. Factorial using recursive lambda
fact = lambda n: 1 if n == 0 else n * fact(n - 1)
print(fact(5))
```

```
120
```

```
# 5. Remove special characters from string
def clean_str(s):
    return "".join(c for c in s if c.isalnum())

print(clean_str("Sree@123!"))
```

```
Sree123
```

```
# 6. Sort characters by ASCII values
def sort_ascii(s):
    return "".join(sorted(s))
```

```
print(sort_ascii("python"))
```

```
hnopty
```

```
# 7. Difference between max and min elements
def get_diff(lst):
    return max(lst) - min(lst)

print(get_diff([10, 5, 25]))
```

```
20
```

```
# 8. Round numbers to nearest ten
def round_ten(lst):
    return [round(x / 10) * 10 for x in lst]

print(round_ten([25, 31, 79]))
```

```
[20, 30, 80]
```

```
# 9. Calculate 2x2 matrix determinant
def determinant(m):
    return (m[0][0] * m[1][1]) - (m[0][1] * m[1][0])

print(determinant([[4, 3], [1, 2]]))
```

```
5
```

```
# 10. Find greatest common divisor
import math
print(math.gcd(12, 18))
```

```
6
```