Lab session 5

6.

```
#include <stdio.h>
#include <stdlib.h>
int main() {
char uppercase_letters[] = "ABC";
char lowercase_letters[] = "abc";
char digits[] = "012";
char special_symbols[] = "$*+/";
char blank_character = ' ';
printf("Uppercase letters:\n");
for (int i = 0; i < sizeof(uppercase_letters) - 1; i++) {
printf("%c: %d\n", uppercase_letters[i], (int)uppercase_letters[i]);
}
printf("\nLowercase letters:\n");
for (int i = 0; i < sizeof(lowercase_letters) - 1; i++) {
printf("%c: %d\n", lowercase_letters[i], (int)lowercase_letters[i]);
}
printf("\nDigits:\n");
for (int i = 0; i < sizeof(digits) - 1; i++) {
printf("%c: %d\n", digits[i], (int)digits[i]);
}
printf("\nSpecial symbols:\n");
for (int i = 0; i < sizeof(special_symbols) - 1; i++)
 {
printf("%c: %d\n", special_symbols[i], (int)special_symbols[i]);
```

p4

1

```
#include <stdio.h>
#include <stdlib.h>
int main() {
int n;
printf("Enter an integer: ");
scanf("%d", &n);
if (number % 2 == 0)
{
printf("The number is even.\n");
}
else
{
printf("The number is odd.\n");
```

```
}
return 0;
}
```

```
#include <stdio.h>
#include <stdlib.h>
int main() {
int n;
printf("Enter an integer: ");
scanf("%d", &n);
switch (n % 2) {
case 0:
printf("The number is even.\n");
break;
case 1:
printf("The number is odd.\n");
break;
}
return 0;
}
```

2.

```
#include <stdio.h>
#include <stdlib.h>
int main() {
int n;
printf("Enter an integer: ");
scanf("%d", &n);
if (number % 2 == 0)
{
printf("The number is even.\n");
}
else
{
printf("The number is odd.\n");
}
return 0;
}
```

3.

```
#include <stdio.h>
#include <stdlib.h>
int main() {
int choice;
float radius, result, PI=3.14159;
printf("Menu-Driven Circle and Sphere Calculator\n");
printf("\n");
printf("1. Calculate the circumference of a circle\n");
printf("2. Calculate the area of a circle\n");
printf("3. Calculate the volume of a sphere\n");
printf("Enter your choice (1-3): ");
scanf("%d", &choice);
printf("Enter the radius: ");
scanf("%f", &radius);
switch (choice) {
case 1:
result = 2 * PI * radius;
printf("Circumference of the circle: %.2f\n", result);
break;
case 2:
result = PI * pow(radius, 2);
printf("Area of the circle: %.2f\n", result);
break;

case 2:
result = PI * pow(radius, 2);
printf("Area of the circle: %.2f\n", result);
break;
case 3:
result = (4.0 / 3.0) * PI * pow(radius, 3);
printf("Volume of the sphere: %.2f\n", result);
break;
default:
printf("Invalid choice!\n");
break;
}
return 0;
}
```

4.

```
#include <stdio.h>
#include <stdlib.h>
int main() {
char letter;
printf("Enter a letter: ");
scanf(" %c", &letter);
switch (letter) {
case 'a':
```

```
case 'A':
case 'e':
case 'E':
case 'i':
case 'I':
case 'o':
case 'O':
case 'u':
case 'U':
printf("%c is a vowel.\n", letter);
break;
default:
printf("%c is not a vowel.\n", letter);
break;
}
return 0;
}
```

5.

```
#include <stdio.h>
#include <stdlib.h>
int main() {
int month, days;
printf("Enter the month number (1-12): ");
scanf("%d", &month);
switch (month) {
case 1:
days = 31;
break;
case 2:
days = 28;
break;
case 3:
days = 31;
break;
case 4:
days = 30;
break;
case 5:
days = 31;
break;
case 6:
days = 30;
break;
case 7:
days = 31;
break;
case 8:
days = 31;
break;
```

```
case 9:
days = 30;
break;
case 10:
days = 31;
break;
case 11:
days = 30;
break;
case 12:
days = 31;
break;
default:
printf("Invalid month number!\n");
return 1;
}
printf("Total number of days
in month %d: %d\n", month, days);
return 0;
}
```

```
printf("%c: %d\n", special_symbols[i], (int)special_symbols[i]);
}
```