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**Practical 03 – CS102.3**

**Question 1**

```
#include <stdio.h>

int main() {
    int num1, num2;
    printf("Enter the first number: ");
    scanf("%d", &num1);
    printf("Enter the second number: ");
    scanf("%d", &num2);
    if (num1 > num2) {
        printf("The highest number is: %d\n", num1);
    } else if (num2 > num1) {
        printf("The highest number is: %d\n", num2);
    } else {
        printf("Both numbers are equal.\n");
    }
    return 0;
}
```

**Question 2**

```
#include <stdio.h>

int main() {
    int num1, num2, num3;
    int largest, smallest;
    printf("Enter the first number: ");
```

```
scanf("%d", &num1);
printf("Enter the second number: ");
scanf("%d", &num2);
printf("Enter the third number: ");
scanf("%d", &num3);
largest = smallest = num1;
if (num2 > largest) {
    largest = num2;
} else if (num2 < smallest) {
    smallest = num2;
}
if (num3 > largest) {
    largest = num3;
} else if (num3 < smallest) {
    smallest = num3;
}
printf("Largest number: %d\n", largest);
printf("Smallest number: %d\n", smallest);
return 0;
}
```

### Question 3

```
#include <stdio.h>
```

```
#include <stdlib.h>
```

```
int main() {
```

```
    char name[15];
```

```
    float bs, ns;
```

```
printf("Enter employee name: ");
scanf("%s", name);
printf("Enter employee basic salary: ");
scanf("%f", &bs);
printf("\n");
if (bs >= 10000) {
    ns = bs + (bs * 15 / 100);
}
else if (bs < 10000 && bs >= 5000) {
    ns = bs + (bs * 10 / 100);
}
else if (bs < 5000) {
    ns = bs + (bs * 5 / 100);
}
printf("%s's new salary is %.2f\n", name, ns);
return 0;
}
```

#### **Question 4**

```
#include <stdio.h>
```

```
int main() {
    float radius;
    float pi = 3.14159;
    printf("Enter the radius of the circle: ");
    scanf("%f", &radius);
    float diameter = 2 * radius;
    float circumference = 2 * pi * radius;
```

```
float area = pi * radius * radius;

printf("Diameter: %.2f\n", diameter);

printf("Circumference: %.2f\n", circumference);

printf("Area: %.2f\n", area);

return 0;

}
```

### Question 5

```
#include <stdio.h>

int main() {

    int num1, num2;

    printf("Enter the first integer: ");

    scanf("%d", &num1);

    printf("Enter the second integer: ");

    scanf("%d", &num2);

    if (num2 != 0 && num1 % num2 == 0) {

        printf("%d is a multiple of %d\n", num1, num2);

    } else {

        printf("%d is not a multiple of %d\n", num1, num2);

    }

    return 0;

}
```

### Question 6

```
#include <stdio.h>

int main() {

    char ch;
```

```
printf("Enter a character: ");  
scanf("%c", &ch);  
printf("ASCII value of %c is %d\n", ch, ch);  
return 0;  
}
```

### Question 7

```
#include <stdio.h>  
  
int main() {  
    int basicSalary;  
    int yearsOfService;  
    char city;  
    int additionalAllowance = 0;  
    float bonus = 0.0;  
    float grossRemuneration;  
    printf("Enter the basic salary: ");  
    scanf("%d", &basicSalary);  
    printf("Enter the number of years of service: ");  
    scanf("%d", &yearsOfService);  
    printf("Enter the city (C for Colombo): ");  
    scanf(" %c", &city);  
    if (yearsOfService > 5) {  
        additionalAllowance = 0.1 * basicSalary;  
    }  
    if (city == 'C') {  
        additionalAllowance += 2500;  
    }  
}
```

```
if (basicSalary <= 25000) {  
    bonus = 0.1 * basicSalary;  
} else if (basicSalary <= 50000) {  
    bonus = 0.12 * basicSalary;  
} else {  
    bonus = 0.15 * basicSalary;  
}  
grossRemuneration = basicSalary + additionalAllowance + bonus;  
printf("Gross monthly remuneration: %.2f\n", grossRemuneration);  
return 0;  
}
```