## Javascript Handbook

1. Program to print hello world on output screen

```
<script language='javascript'>
document.write("hello world");
</script>
```

2. Program to declare a variable and give its value as 10

```
<script language='javascript'>
var a;
a=10;
document.write("value of a is " + a);
</script>
```

3. Program to declare two variables and print their values

```
<script language='javascript'>
var a,b;
a=10;
b=20;
document.write("value of a is " + a);
document.write("value of b is " + b);
</script>
```

4. Program to declare two variables and find their sum

```
<script language='javascript'>
var a,b,sum;
a=10;
b=20;
sum=a+b;
document.write("sum of a and b is " + sum);
</script>
```

5. Program to declare two variables and find their difference

```
<script language='javascript'>
var a,b,diff;
a=100;
b=20;
diff=a-b;
document.write("difference of a and b is " + diff);
</script>
```

6. Program to declare two variables and find their sum

```
<script language='javascript'>
```

```
var a,b,product;
a=10;
b=20;
product=a*b;
document.write("product of a and b is " + product);
</script>
   7. Program to declare two variables and find their quotient
<script language='javascript'>
var a,b,quo;
a=100;
b=20;
quo=a/b;
document.write("quotient of a and b is " + quo);
</script>
   8. Program to declare two variables and find their remainder
<script language='javascript'>
var a,b,remainder;
a=100;
b=20;
remainder=a%b;
document.write("remainder of a and b is " + remainder);
</script>
   9. Program to declare a variable that can hold decimal point value
<script language='javascript'>
var a;
a=100.65;
document.write("decimal point value is " + a);
</script>
   10. Program to declare a variable that can hold a character
<script language='javascript'>
var ch='v';
document.write("value in ch is " + ch);
</script>
   11. Program to add two decimal point numbers
<script language='javascript'>
var a=1.23;
var b=2.34;
var c;
c=a+b;
```

```
document.write("sum of two decimal point values is " + c);
</script>
   12. Program to subtract two decimal point numbers
<script language='javascript'>
var a=10.23;
var b=2.34;
var c;
c=a-b:
document.write("difference of two decimal point values is " + c);
</script>
   13. Program to find product of two decimal point numbers
<script language='javascript'>
var a=10.23;
var b=2.34;
var c;
c=a*b;
document.write("product of two decimal point values is " + c);
</script>
   14. Program to find simple interest
<script language='javascript'>
var p,r,t,si;
p=1000;
r=3;
t=5;
si=(p*r*t)/100;
document.write("simple interest is " + si);
</script>
   15. Program to find area of rectangle
<script language='javascript'>
var l,b,area;
l=10;
b=20;
area=l*b;
document.write("area of rectangle is " + area);
</script>
   16. Program to find perimeter of rectangle
<script language='javascript'>
var l,b,perimeter;
l=10;
```

```
b=20;
perimeter=2*(l+b);
document.write("perimeter of rectangle is " + perimeter);
</script>
   17. Program to find area of square
<script language='javascript'>
var side, area;
side=10;
area=side*side;
document.write("area of square is " + area);
</script>
   18. Program to find perimeter of square
<script language='javascript'>
var side, perimeter;
side=10;
perimeter=4*side;
document.write("perimeter of square is " + perimeter);
</script>
   19. Program to find area of right angled triangle
<script language='javascript'>
var base, height, area;
base=10;
height=5;
area=0.5*base*height;
document.write("area of right angled triangle is " + area);
</script>
   20. Program to find area of circle
<script language='javascript'>
var radius, area;
radius=10;
area=3.14*radius*radius;
document.write("area of circle is " + area);
</script>
   21. Program to find circumference of circle
<script language='javascript'>
var radius,cr;
radius=10;
cr=2*3.14*radius;
document.write("circumference of circle is " + cr);
```

```
</script>
   22. Program to demonstrate increment operator (++)
<script language='javascript'>
var a:
a=10;
document.write("value of a is " + a);
document.write("value of a after applying increment operator is " + a);
</script>
   23. Program to demonstrate decrement operator (–)
<script language='javascript'>
var a:
a=10;
document.write("value of a is " + a);
document.write("value of a after applying decrement operator is " + a);
</script>
   24. Program to initialize a variable
<script language='javascript'>
var a=10;
document.write("value of a is " + a);
</script>
   25. Program to demonstrate short hand assignment operator (+=)
<script language='javascript'>
var a=10;
document.write("value of a is " + a);
a+=2;
document.write("value of a after applying += operator is " + a);
</script>
   26. Program to demonstrate short hand assignment operator (-=)
<script language='javascript'>
var a=10;
document.write("value of a is " + a);
a=2;
document.write("value of a after applying -= operator is " + a);
</script>
   27. Program to demonstrate short hand assignment operator (*=)
```

```
<script language='javascript'>
var a=10;
document.write("value of a is " + a);
document.write("value of a after applying *= operator is " + a);
</script>
   28. Program to demonstrate short hand assignment operator (/=)
<script language='javascript'>
var a=10;
document.write("value of a is " + a);
document.write("value of a after applying /= operator is " + a);
</script>
   29. Program to demonstrate short hand assignment operator (%=)
<script language='javascript'>
var a=10;
document.write("value of a is " + a);
document.write("value of a after applying %= operator is " + a);
</script>
   30. Program to calculate 10 percent discount
<script language='javascript'>
var price, discount;
price=1000;
discount=0.1*price;
document.write("10% discount is " + discount);
</script>
   31. Program to calculate volume of box
<script language='javascript'>
var w,d,h,vol;
w=10;
d=20;
h=30;
vol=w*d*h;
document.write("volume of box is " + vol);
</script>
   32. Program to demonstrate ternary operator or conditional operator
<script language='javascript'>
var marks, result;
```

```
marks=75;
result=(marks>=40?'p':'f');
document.write("result is " + result);
</script>
   33. Program to declare constant using const keyword
<script language='javascript'>
const pi=3.14;
var area;
area=pi*10*10;
document.write("area of circle is " + area);
</script>
   34. Program to declare a boolean value
<script language='javascript'>
var a=true;
document.write("value of a is " + a);
</script>
   35. Program to check whether value of a is 10, example of if statement
<script language='javascript'>
var a;
a=10;
if(a==10)
document.write("value of a is 10");
</script>
   36. Program to check whether a is greater than 10 or not
<script language='javascript'>
var a;
a=100;
if(a>10)
document.write("value of a is greater than 10");
</script>
   37. Program to check whether a is less than 10 or not
<script language='javascript'>
var a;
a=1:
if(a<10)
```

```
document.write("value of a is less than 10");
</script>
   38. Program to check whether value of a is less than 10 or not
<script language='javascript'>
var a;
a=1;
if(a \le 10)
document.write("value of a is less than or equal to 10");
</script>
    39. Program to check whether value of a is greater than 10 or not
<script language='javascript'>
var a;
a=11;
if(a>=10)
document.write("value of a is greater than or equal to 10");
</script>
    40. Program to check whether value of a is not equal to 10
<script language='javascript'>
var a;
a=11;
if(a!=10)
document.write("value of a is not equal to 10");
</script>
    41. Program to check whether a is equal to 10 or not using if else statement
<script language='javascript'>
var a;
a=11;
if(a==10)
document.write("value of a is equal to 10");
else
```

```
document.write("value of a is not equal to 10");
</script>
   42. Program to check whether value of a is greater than 10 or not using if else statement
<script language='javascript'>
var a:
a=11;
if(a>10)
document.write("value of a is greater than 10");
}
else
document.write("value of a is less than or equal to 10");
</script>
   43. Program to check whether value of a is less than 10 or not using if else statement
<script language='javascript'>
var a;
a=11;
if(a<10)
document.write("value of a is less than 10");
else
document.write("value of a is greater than or equal to 10");
</script>
   44. Program to check whether a is equal to 10 or not using if else statement
<script language='javascript'>
var a:
a=11;
if(a!=10)
document.write("value of a is not equal to 10");
else
document.write("value of a is equal to 10");
</script>
```

45. Program to check whether a is greater than or less than or equal to 10 using if else statement

```
<script language='javascript'>
var a:
a=11;
if(a>10)
document.write("value of a is greater than 10");
else
document.write("value of a is less than or equal to 10");
</script>
   46. Program to check whether a is less than or equal to 10 or greater than 10
<script language='javascript'>
var a;
a=11;
if(a<10)
document.write("value of a is less than 10");
}
else
document.write("value of a is greater than or equal to 10");
</script>
   47. Program to find largest of three numbers
<script language='javascript'>
var a,b,c,max;
a=11;
b=10;
c=13;
max=a;
if(b>max)
max=b;
if(c>max)
max=c;
document.write("largest number is " + max);
</script>
```

## 48. Program to find smallest of three numbers

```
<script language='javascript'>
var a,b,c,min;
a=11;
b=10;
c=13;
min=a;
if(b<min)
min=b;
if(c<min)
min=c;
document.write("smallest number is " + min);
</script>
   49. Program to check whether marks are between 80 and 90 using and (&&) operator
<script language='javascript'>
var marks;
marks=85;
if((marks>=80) && (marks<=90))
document.write("marks are between 80 and 90");
else
document.write("marks are not between 80 and 90");
</script>
   50. Program to check whether marks are equal to 80 or 90 using (||) or operator
<script language='javascript'>
var marks;
marks=80;
if((marks==80) || (marks==90))
document.write("marks are either equal to 80 or 90");
</script>
   51. Program to check whether user has entered a or b
<script language='javascript'>
var ch;
```

```
ch='a';
if((ch=='a') || (ch=='b'))
document.write("you entered either a or b");
else
document.write("you have not entered a or b");
</script>
   52. Program to calculate grade of student
<script language='javascript'>
var marks;
var grade;
marks=75;
if((marks>=80) && (marks<=100))
grade='a';
else if((marks>=70) && (marks<80))
grade='b';
else if((marks>=60) && (marks<70))
grade='c';
else
grade='d';
document.write("Grade is " + grade);
</script>
   53. Program to check whether number is even or odd
<script language='javascript'>
var a;
a=10;
if(a\%2==0)
document.write("Number is even");
}
else
document.write("Number is odd");
```

```
54. Program to check whether number 1 is divisible by number 2 or not
<script language='javascript'>
var a,b;
a=10;
b=5;
if(a\%b==0)
document.write("Number 1 is divisible by Number 2");
else
document.write("Number 1 is not divisible by Number 2");
</script>
   55. Program to check whether user has entered vowel or not
<script language='javascript'>
var ch;
ch='a';
if((ch=='a') || (ch=='e') || (ch=='i') || (ch=='o') || (ch=='u'))
document.write("you entered a vowel");
}
else
document.write("you have not entered a vowel");
</script>
   56. Program to calculate discount based on price if price is greater than 1000 discount is 10% else
       5%
<script language='javascript'>
var price, discount;
price=2000;
if(price \ge 1000)
discount=0.1*price;
}
else
discount=0.05*price;
document.write("discount is " + discount);
</script>
```

</script>

57. Program to demonstrate switch case statement to find find day in words based on day in number

```
<script language='javascript'>
var dav:
day=4;
switch(day)
case 1:
document.write("Monday");
break;
case 2:
document.write("tuesday");
break;
case 3:
document.write("wednesday");
break;
case 4:
document.write("thursday");
break;
case 5:
document.write("friday");
break;
case 6:
document.write("saturday");
break;
case 7:
document.write("sunday");
break;
default:
document.write("enter a day between 1 and 7");
</script>
   58. Program to demonstrate switch case statement to find month in words based on month in
       numbers
<script language='javascript'>
var month;
     month=4;
       switch(month)
       case 1:
              document.write("january");
              break;
       case 2:
              document.write("february");
              break;
       case 3:
              document.write("march");
```

```
break;
       case 4:
              document.write("april");
              break;
       case 5:
              document.write("may");
              break;
       case 6:
              document.write("june");
              break;
       case 7:
              document.write("july");
              break;
       case 8:
              document.write("august");
              break;
       case 9:
              document.write("september");
              break;
       case 10:
              document.write("october");
              break;
       case 11:
              document.write("november");
              break;
       case 12:
              document.write("december");
              break;
       default:
              document.write("enter a month between 1 and 12");
</script>
   59. Program to find da, hra and net salary based on basic salary
<script language='javascript'>
var basic, hra, da, netsal;
  basic=5000;
  if(basic \le 2500)
    hra=0;
    da=0;
  else if((basic>=2500) && (basic<4000))
       hra=0.2*basic;
       da=0.15*basic;
  else if((basic>=4000) && (basic<8000))
```

```
hra=0.25*basic;
       da=0.2*basic;
  else
       hra=0.3*basic;
       da=0.25*basic;
    netsal=basic+hra+da;
    document.write("hra is " + hra);
    document.write("da is " + da);
    document.write("net salary is " + netsal);
</script>
   60. Program to convert temperature from celsius to fahrenheit and vice versa based on user's choice
       using if else statement
<script language='javascript'>
var choice;
  var temp,conv;
  choice=2;
  if(choice==1)
  {
    temp=90;
    conv=(temp-32)/1.8;
    document.write("temperature in celsius is " + conv);
  }
  else
  {
    temp=40;
    conv = (1.8*temp) + 32;
    document.write("temperature in fahrenheit is " + conv);
  }
</script>
61. Program to convert temperature from celsius to fahrenheit and vice versa based on user's choice
using switch case statement
<script language='javascript'>
var choice;
  var temp,conv;
 choice=1;
 switch(choice)
 {
 case 1:
```

```
temp=90;
    conv=(temp-32)/1.8;
    document.write("temperature in celsius is " + conv);
    break;
 case 2:
    temp=40;
    conv = (1.8*temp) + 32;
    document.write("temperature in fahrenheit is " + conv);
    break;
 default: document.write("enter choice 1 or 2 ");
</script>
   62. Program to check whether user has entered vowel or not using switch case statement
<script language='javascript'>
var ch;
    ch='e':
       switch(ch)
       case 'a':
              document.write("you entered a vowel");
       break;
       case 'e':
              document.write("you entered a vowel");
              break;
       case 'i':
              document.write("you enetred a vowel");
              break;
       case 'o':
              document.write("you enetred a vowel");
              break;
       case 'u':
              document.write("you entered a vowel");
              break;
       default:
              document.write("enter a vowel (a,e,i,o,u)");
       }
</script>
   63. Program to find year is leap year or not
<script language='javascript'>
var year;
  year=2001;
```

```
if((year\%100==0) || (year\%400==0))
    document.write("leap year");
  else
    if(year\%4==0)
       document.write("leap year");
    else
       document.write("not a leap year");
</script>
   64. Program to print numbers from 0 to 9 using for statement
<script language='javascript'>
 var i;
    for(i=0;i<10;i++)
              document.write(i);
</script>
   65. Program to print numbers from 0 to 10 using for statement
<script language='javascript'>
var i;
    for(i=0;i<=10;i++)
              document.write(i);
</script>
   66. Program to print numbers from 9 to 0 using for statement in reverse order
<script language='javascript'>
 var i;
       for(i=9;i>=0;i--)
              document.write(i);
       }
```

```
67. Program to print numbers from 10 to 0 in reverse order using for statement
<script language='javascript'>
  var i;
       for(i=10;i>=0;i--)
              document.write(i);
       }
</script>
   68. Program to print numbers from 0 to 10 with a gap of 2 using for statement
<script language='javascript'>
   var i;
       for(i=0;i<=10;i+=2)
              document.write(i);
       }
</script>
   69. Program to print numbers from 0 to 50 using for statement with a gap of 5
<script language='javascript'>
 var i;
       for(i=0;i<=50;i+=5)
              document.write(i);
       }
</script>
   70. Program to print numbers from 50 to 5 using for statement with a gap of 5 in reverse order
<script language='javascript'>
 var i;
       for(i=50;i>=1;i=5)
              document.write(i);
       }
```

</script>

```
71. Program to print sum of numbers from 1 to 10 using for statement
<script language='javascript'>
    var i;
       var sum=0;
       for(i=1;i<=10;i++)
              sum=sum+i;
       document.write("sum of numbers from 1 to 10 is " + sum);
</script>
   72. Program to print sum of even numbers from 1 to 10 using for statement
<script language='javascript'>
var i;
       var sumeven=0;
       for(i=1;i<=10;i++)
              if(i\%2==0)
                     sumeven=sumeven+i;
       }
      document.write("sum of even numbers from 1 to 10 is " + sumeven);
</script>
   73. Program to print sum of odd numbers from 1 to 10 using for statement
<script language='javascript'>
    var i;
       var sumodd=0;
       for(i=1;i<=10;i++)
              if(i%2!=0)
                     sumodd=sumodd+i;
```

</script>

```
}
       document.write("sum of odd numbers from 1 to 10 is " + sumodd);
</script>
   74. Program to print sum of even and odd numbers from 1 to 10 using for statement
<script language='javascript'>
   var i;
       var sumeven=0;
       var sumodd=0;
       for(i=1;i<=10;i++)
              if(i\%2==0)
                     sumeven=sumeven+i;
              else
                     sumodd=sumodd+i;
       document.write("sum of even numbers from 1 to 10 is " + sumeven);
       document.write("sum of odd numbers from 1 to 10 is " + sumodd);
</script>
   75. Program to print numbers between two numbers here 5 and 15 using for statement
<script language='javascript'>
var a,b;
       var i;
    a=5;
    b=15;
       for(i=a;i<=b;i++)
              document.write(i);
</script>
   76. Program to print sum of numbers between two numbers here 5 and 15 using for statement
<script language='javascript'>
       var a,b;
       var i;
       var sum=0;
```

```
a=5;
    b=15;
       for(i=a;i<=b;i++)
              sum=sum+i;
       document.write("sum of numbers from a to b is " + sum);
</script>
   77. Program to find factorial of number using for statement
<script language='javascript'>
var a;
       var i;
       var fact=1;
    a=5;
       for(i=1;i<=a;i++)
              fact=fact*i;
       document.write("factorial of a is " + fact);
</script>
   78. Program to check whether number is prime or not using for statement
<script language='javascript'>
var i;
       var a;
       var prime=1;
    a=5;
       for(i=2;i<=a/2;i++)
              if(a\%i == 0)
                     prime=0;
                     break;
              }
       if(prime==1)
              document.write("number entered is prime ");
       else
              document.write("number enetred is not prime");
</script>
```

79. Program to print first 11 terms of Fibonacci series using for statement

```
<script language='javascript'>
       var i;
       var a=1;
       var b=1;
       var c;
    document.write(a);
       document.write(b);
       for(i=2;i<=10;i++)
       {
              c=a+b;
              document.write(c);
              a=b;
              b=c;
</script>
   80. Program to print pattern of stars using for statement example of nested for loop
<script language='javascript'>
       var i,j;
  for(i=1;i<=5;i++)
    for(j=1;j<=i;j++)
       document.write("*");
    document.write("<br>");
</script>
   81. Program to print table of number using for statement
<script language='javascript'>
var i,a;
    a=5;
       for(i=1;i<=10;i++)
              document.write(i*a);
</script>
   82. Program to print numbers from 0 to 9 using while statement
<script language='javascript'>
```

```
var i;
       i=0;
       while(i<10)
              document.write(i);
              i++;
</script>
   83. Program to print numbers from 1 to 10 using while statement
<script language='javascript'>
var i;
       i=1;
       while(i \le 10)
              document.write(i);
              i++;
</script>
   84. Program to print numbers from 1 to 9 with a gap of 2 using while statement
<script language='javascript'>
var i;
       i=1;
       while(i \le 10)
              document.write(i);
              i=i+2;
</script>
   85. Program to print factorial of number using while loop
<script language='javascript'>
var i=1;
       var a;
       var fact=1;
    a=5;
       while(i<=a)
              fact=fact*i;
              i++;
       document.write("factorial of number is " + fact);
```

```
</script>
   86. Program to print table of number using while statement
<script language='javascript'>
var i,a;
    a=3;
       i=1;
       while(i \le 10)
              document.write(a*i);
              i++;
</script>
   87. Program to print sum of numbers from 1 to 10 using while statement
<script language='javascript'>
var i;
       i=1;
       var sum=0;
       while(i \le 10)
              sum=sum+i;
              i++;
       document.write("sum of numbers is " + sum);
</script>
   88. Program to print sum of numbers between two numbers here 5 and 15 using while statement
<script language='javascript'>
var i,a,b,sum=0;
    a=5;
    b=15;
       i=a;
       while(i<=b)
              sum=sum+i;
              i++;
       document.write("sum of numbers between a and b is " + sum);
</script>
   89. Program to print sum of even and odd numbers between two numbers here 5 and 15 using while
       statement
```

<script language='javascript'>

```
var a,b,i;
       var sumeven=0;
       var sumodd=0;
    a=5;
    b=15;
       i=a;
       while(i<=b)
              if(i\%2==0)
                     sumeven=sumeven+i;
              else
              {
                     sumodd=sumodd+i;
              i++;
       document.write("sum of even numbers between a and b is " + sumeven);
       document.write("sum of odd numbers between a and b is " + sumodd);
</script>
   90. Program to check whether number is prime or not using while statement
<script language='javascript'>
       var i=2;
       var a;
       var prime=1;
    a=5;
       while(i \le a/2)
              if(a\%i == 0)
                     prime=0;
                     break;
              i++;
       if(prime==1)
              document.write("number is prime ");
       else
              document.write("number is not prime");
</script>
```

91. Program to print first 11 terms of Fibonacci series using while statement

```
<script language='javascript'>
var a,b,c,i;
       a=1;
       b=1;
       i=2;
   document.write(a);
   document.write(b);
       while(i \le 10)
              c=a+b;
              document.write(c);
              a=b;
              b=c;
              i++;
       }
</script>
   92. Program to calculate hcf and lcm of two numbers using while statement
<script language='javascript'>
var a,b,c;
a=10;
b=5;
  c=a*b;
  while(a!=b)
     if(a>b)
     a=a-b;
     else
    b=b-a;
 document.write("HCF = " + a);
document.write("<br>");
 document.write("LCM = " + c/a);
</script>
   93. Program to print numbers from 1 to 10 using do while statement
<script language='javascript'>
var i=1;
       do
       document.write(i);
       i++;
       }while(i<=10);
```

```
</script>
   94. Program to print 11 using do while statement
<script language='javascript'>
var i;
       i=11;
       do
       document.write(i);
       i++;
       }while(i<=10);
</script>
   95. Program to demonstrate break statement in for loop
<script language='javascript'>
var i;
       for(i=1;i<=10;i++)
              if(i==5)
                     break;
              document.write(i);
</script>
   96. Program to demonstrate break statement in while loop
<script language='javascript'>
var i=0;
       while(i<10)
              if(i==5)
                     break;
              document.write(i);
              i++;
       }
</script>
```

97. Program to demonstrate continue statement in for loop

```
<script language='javascript'>
var i;
       for(i=1;i<=10;i++)
              if(i==5)
                     continue;
              document.write(i);
       }
</script>
   98. Program to find sum of digits of a number
<script language='javascript'>
  var num, digit;
  var sum=0;
  num=121;
  do
  {
    digit=num%10;
    sum=sum+digit;
    num=num/10;
  }while(num!=0);
sum=parseInt(sum);
  document.write("the sum of digits is " + sum);
</script>
   99. Program to count number of digits in a number
<script language='javascript'>
   var num, digit;
  var count=0;
  num=1234;
  do
    digit=num%10;
    num=parseInt(num/10);
  count++;
  }while(num!=0);
 document.write("the number of digits in the number are " + count);
</script>
100. Program to check whether number is palindrome 1221 is palindrome whereas 1234 is not a
palindrome
```

```
<script language='javascript'>
 var n,num,digit,rev=0;
 num=1221;
  n=num;
  do
    digit=num%10;
    rev=(rev*10)+digit;
    num=parseInt(num/10);
  }while(num!=0);
 document.write("the reverse of number is " + rev);
 if(n==rev)
  {
    document.write("number is palindrome");
  }
  else
  {
    document.write("number is not pelindrome");
</script>
101. Porgram to find reverse of number using do while statement
<script language='javascript'>
var num,digit,rev=0;
       num=123;
       do
       {
       digit=num%10;
       rev=(rev*10)+digit;
       num=parseInt(num/10);
       }while(num!=0);
       document.write("the reverse of number is " + rev);
</script>
102. Program to print pattern of numbers using nested for loop
<script language='javascript'>
var n;
      var i,j;
    n=5;
       for(i=1;i<=n;i++)
              for(j=1;j<=i;j++)
                     document.write(j);
```

```
document.write("<br>");
       }
</script>
103. Program to find factorial of number using for loop with decrement operator
<script language='javascript'>
var fact=1;
       var n,i;
    n=5;
       for(i=n;i>=1;i--)
              fact=fact*i;
       document.write("factorial of number is " + fact);
</script>
104. Program to print Hello there by creating a function and calling it
<script language='javascript'>
   function sayHello() {
    document.write("Hello there");
sayHello();
</script>
105.
```