

## Assignment/Worksheet

## Class 11<sup>th</sup> Python

**Using the Python interpreter** In our first code we are going to print “Hello World!” using the interpreter. To generate the output, type the following: `>>> print("Hello World!")` Hello World!

**Variables and Assignment:** In algebra, variables represent numbers. The same is true in Python, except Python variables also can represent values other than numbers.

**Identifiers:** While mathematicians are content with giving their variables one-letter names like x, programmers should

use longer, more descriptive variable names. Names such as sum, height, and sub\_total are much better than the equally permissible s, h, and st. A variable’s name should be related to its purpose within the program. Good variable names make programs more readable by humans. Since programs often contain many variables, well-chosen variable names can render an otherwise obscure collection of symbols more understandable. Identifiers have the

1. following form:
  - Identifiers must contain at least one character.
  - The first character must be an alphabetic letter (upper or lower case) or the underscore  
 ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz\_
2. The remaining characters (if any) may be alphabetic characters (upper or lower case), the underscore, or a digit  
 ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz\_0123456789
  - No other characters (including spaces) are permitted in identifiers.
  - A reserved word cannot be used as an identifier (see Table 2.1).
3. Here are some examples of valid and invalid identifiers:
4. All of the following words are valid identifiers and so can be used as variable names: x, x2, total, port\_22, and FLAG.
  - None of the following words are valid identifiers: sub-total (dash is not a legal symbol in an identifier), first entry (space is not a legal symbol in an identifier), 4all (begins with a digit), #2 (pound sign is not a legal symbol in an identifier), and class (class is a reserved word).
5. identifier), first entry (space is not a legal symbol in an identifier), 4all (begins with a digit), #2 (pound sign is not a legal symbol in an identifier), and class (class is a reserved word).

**Keywords and Identifiers:** The following identifiers are used as reserved words, or keywords of the language, and cannot be used as ordinary identifiers. They must be typed exactly as written here:

False	class	finally	is	return
None	continue	for	lambda	try
True	def	from	nonlocal	while
and	del	global	not	with
as	elif	if	or	yield
assert	else	import	pass	
break	except	in	raise	

**Reading input from the Keyboard** `input("String to show") // number = int(input("Enter an integer: "))`

**The eval Function :** The input function produces a string from the user’s keyboard input. If we wish to treat that input as a number, we can use the int or float function to make the necessary conversion:

`x = float(input('Please enter a number'))`

**Operators:** Operators are the symbols which tells the Python interpreter to do some mathematical or logical operation. Few basic examples of mathematical operators are given below:

`>>> 2 + 3` 5

`>>> 23 - 3` 20

# PRTTHON 3.0

**Expressions:** Generally while writing expressions we put spaces before and after every operator so that the code becomes clearer to: read, like  $a = 234 * (45 - 56.0 / 34)$

**Identifiers/variables** -Names given to any variable, function, class, union etc. Naming convention(rule) for writing identifier is as under:

- 1. Names of functions    2. Names of arrays    3. Names of variables    4. Names of classes**

- i) First letter of identifier is always alphabet.
- ii) Reserve word cannot be taken as identifier name.
- iii) No special character in the name of identifier except under score sign '\_'.

Here are some examples of acceptable identifiers:

- |                   |                 |                   |                   |
|-------------------|-----------------|-------------------|-------------------|
| <b>1.</b> mohd    | <b>5.</b> a_123 | <b>9.</b> J       | <b>12.</b> abc_rr |
| <b>2.</b> zara    | <b>6.</b> mynam | <b>10.</b> a23b9  |                   |
| <b>3.</b> abc     | <b>7.</b> e50   | <b>11.</b> retVal |                   |
| <b>4.</b> move_na | <b>8.</b> _temp |                   |                   |

**Some Facts About Identifier :**

- 1. It is name given to program element.
- 2. Identifier is the names are given by the programmer.
- 3. We can give any valid name to the identifier.
- 4. Keywords cannot be used as Identifier.
- 5. Only Alphabets, Digits and Underscores are permitted.
- 6. Identifier name cannot start with a digit.
- 7. Key words cannot be used as a name.
- 8. Upper case and lower case letters are distinct.
- 9. Special Characters are not allowed
- 10. Global Identifier cannot be used as "Identifier".
- 11. An identifier is used for any variable, function, data definition etc.
- 12. Other special characters are not allowed for naming a variable / identifier
- 13. PYTHON is case-sensitive so that Uppercase Letters and Lower Case letters are different
- 14. The name of identifier cannot begin with a digit. However, Underscore can be used as first character while declaring the identifier.
- 15. Only alphabetic characters, digits and underscore ( \_ ) are permitted in PYTHON language for declaring identifier.

**Q1. Classify each of the following as either a legal or illegal Python identifier:**

1. fred	#Keywords	8. #sum total	#Invalid	15. xTwo	#identifier
2. #if	# Invalid	9. Sumtotal	#identifier	16. _static	#identifier
3. #2x	#Invalid	10. While	#identifier	17. _4	#identifier
4. -4	#Constant	11. x2	#identifier	18. ___	#identifier
5. sum_total	#identifier	12. Private	#Keywords	19. #10%	#Invalid
6. sumTotal	#identifier	13. public	#Keywords	20. a27834	#identifier
7. sum-total	#Expression	14. #\$16	#Invalid	21. #wilma's	#Invalid

**Q2. If x = 2 Indicate what each of the following Python statements would print.**

print("x")	1. x
print('x')	2. x
print(x)	3. 2
print("x + 1")	4. x + 1
print('x' + 1)	5. #Invalid
print(x + 1)	6. 3

**Q3. Find Output: if  $i1 = 2, i2 = 5, i3 = -3, d1 = 2.0, d2 = 5.0, d3 = -0.5$ ;**

1. $i1 + i2$	1. <code>print(i1 + i2)</code>	1. 7
2. $i1 / i2$	2. <code>print(i1 / i2)</code>	2. 0.4
3. $i1 // i2$	3. <code>print(i1 // i2)</code>	3. 0
4. $i2 / i1$	4. <code>print(i2 / i1)</code>	4. 2.5
5. $i2 // i1$	5. <code>print(i2 // i1)</code>	5. 2
6. $i1 * i3$	6. <code>print(i1 * i3)</code>	6. -6
7. $d1 + d2$	7. <code>print(d1 + d2)</code>	7. 7.0
8. $d1 / d2$	8. <code>print(d1 / d2)</code>	8. 0.4
9. $d2 / d1$	9. <code>print(d2 / d1)</code>	9. 2.5
10. $d3 * d1$	10. <code>print(d3 * d1)</code>	10. -1.0
11. $d1 + i2$	11. <code>print(d1 + i2)</code>	11. 7.0
12. $i1 / d2$	12. <code>print(i1 / d2)</code>	12. 0.4
13. $d2 / i1$	13. <code>print(d2 / i1)</code>	13. 2.5
14. $i2 / d1$	14. <code>print(i2 / d1)</code>	14. 2.5
15. $i1/i2*d1$	15. <code>print(i1/i2*d1)</code>	15. 0.8
16. $d1*i1/i2$	16. <code>print(d1*i1/i2)</code>	16. 0.8
17. $d1/d2*i1$	17. <code>print(d1/d2*i1)</code>	17. 0.8
18. $i1*d1/d2$	18. <code>print(i1*d1/d2)</code>	18. 0.8
19. $i2/i1*d1$	19. <code>print(i2/i1*d1)</code>	19. 5.0
20. $d1*i2/i1$	20. <code>print(d1*i2/i1)</code>	20. 5.0
21. $d2/d1*i1$	21. <code>print(d2/d1*i1)</code>	21. 5.0
22. $i1*d2/d1$	22. <code>print(i1*d2/d1)</code>	22. 5.0

**Q4. Find Output: if  $i2 = 5, i3 = -3, i1 = 2.0, d2 = 5.0, d3 = -0.5$**

1. $i1 + (i2 * i3)$	1. <code>print(i1 + (i2 * i3))</code>	1. -13
2. $i1 * (i2 + i3)$	2. <code>print(i1 * (i2 + i3))</code>	2. 4
3. $i1 / (i2 + i3)$	3. <code>print(i1 / (i2 + i3))</code>	3. 1.0
4. $i1 // (i2 + i3)$	4. <code>print(i1 // (i2 + i3))</code>	4. 1
5. $i1 / i2 + i3$	5. <code>print(i1 / i2 + i3)</code>	5. -2.6
6. $i1 // i2 + i3$	6. <code>print(i1 // i2 + i3)</code>	6. -3
7. $3 + 4 + 5 / 3$	7. <code>print(3 + 4 + 5 / 3)</code>	7. 8.666666666666666
8. $3 + 4 + 5 // 3$	8. <code>print(3 + 4 + 5 // 3)</code>	8. 8
9. $(3 + 4 + 5) / 3$	9. <code>print( (3 + 4 + 5) / 3)</code>	9. 4.0
10. $(3 + 4 + 5) // 3$	10. <code>print( (3 + 4 + 5) // 3)</code>	10. 4
11. $d1 + (d2 * d3)$	11. <code>print(d1 + (d2 * d3))</code>	11. -0.5
12. $d1 + d2 * d3$	12. <code>print(d1 + d2 * d3)</code>	12. -0.5
13. $d1 / d2 - d3$	13. <code>print(d1 / d2 - d3)</code>	13. 0.9
14. $d1 / (d2 - d3)$	14. <code>print(d1 / (d2 - d3))</code>	14. 0.36363636363636365
15. $d1 + d2 + d3 / 3$	15. <code>print(d1 + d2 + d3 / 3)</code>	15. 6.833333333333333
16. $(d1 + d2 + d3) / 3$	16. <code>print( (d1 + d2 + d3) / 3)</code>	16. 2.1666666666666665
17. $d1 + d2 + (d3 / 3)$	17. <code>print(d1 + d2 + (d3 / 3))</code>	17. 6.833333333333333
18. $3 * (d1 + d2) * (d1 - d3)$	18. <code>print(3 * (d1 + d2) * (d1 - d3))</code>	18. 52.5

**Q5. Write the shortest way to express each of the following statements.**

1. $x = x + 1$	<code>X+=1</code>
2. $x = x / 2$	<code>x/=2</code>
3. $x = x - 1$	<code>x-=1</code>
4. $x = x + y$	<code>x+=y</code>
5. $x = x - (y + 7)$	<code>x-=y+7</code>

6. $x = 2 * x$	$x * = 2$
<b>Q6. Program with Output:</b>	
pi = 3.14159;	Pi = 3.14159
print("Pi =", pi)	or 3.14 for short
print("or", 3.14, "for short")	Avogadro's number = 6.022e+23
avogadros_number = 6.022e23	Speed of light = 299800000.0
c = 2.998e8	
print("Avogadro's number =", avogadros_number)	
print("Speed of light =", c)	
print('A\nB\nC')	A
print('D\tE\tF')	B
print('WX\bYZ')	C
print('1\2\3\4\5\6')	D      E      F W X Y Z 1 2 3 4 5 6
print("Did you know that 'word' is a word?")	Did you know that 'word' is a word?
print('Did you know that "word" is a word?')	Did you know that "word" is a word?
print('Did you know that \'word\' is a word?')	Did you know that 'word' is a word?
print("Did you know that \"word\" is a word?")	Did you know that "word" is a word?
filename = 'C:\\Users\\rick'	C:\Users\rick
print(filename)	Please enter some text:
print('Please enter some text:')	Hi Mr Ravi
x = input()	Text entered: Hi Mr Ravi
print('Text entered:', x)	Type: <class 'str'>
print('Type:', type(x))	
print('Please enter an integer value:')	Please enter an integer value:
x = input()	91
print('Please enter another integer value:')	Please enter another integer value:
y = input()	32
num1 = int(x)	91 + 32 = 123
num2 = int(y)	
print(num1, '+', num2, '=', num1 + num2)	
x = input('Please enter an integer value: ')	Please enter an integer value: 23
y = input('Please enter another integer value: ')	Please enter another integer value: 43
num1 = int(x)	23 + 43 = 66
num2 = int(y)	
print(num1, '+', num2, '=', num1 + num2)	
num1 = int(input('Please enter an integer value: '))	Please enter an integer value: 12
num2 = int(input('Please enter another integer value: '))	Please enter another integer value: 45
print(num1, '+', num2, '=', num1 + num2)	12 + 45 = 57
x1 = eval(input('Entry x1? '))	Entry x1? 12
print('x1 =', x1, ' type:', type(x1))	x1 = 12 type: <class 'int'>
x2 = eval(input('Entry x2? '))	Entry x2? 21
print('x2 =', x2, ' type:', type(x2))	x2 = 21 type: <class 'int'>
x3 = eval(input('Entry x3? '))	Entry x3? 122
print('x3 =', x3, ' type:', type(x3))	x3 = 122 type: <class 'int'>
x4 = eval(input('Entry x4? '))	Entry x4? 43

print('x4 =', x4, ' type:', type(x4))	x4 = 43 type: <class 'int'>
x5 = eval(input('Entry x5? '))	Entry x5? 2.2
print('x5 =', x5, ' type:', type(x5))	x5 = 2.2 type: <class 'float'> Please enter number 1, number 2: 12
num1, num2 = eval(input('Please enter number 1, number 2: ')) print(num1, '+', num2, '=', num1 + num2)	Please enter number 1, number 2: 12,12 12 + 12 = 24
print(eval(input()))	2
print('A', end='')	A
print('B', end='')	B
print('C', end='')	C
print()	X
print('X')	Y
print('Y')	Z
print('Z')	
w, x, y, z = 10, 15, 20, 25	10 15 20 25
print(w, x, y, z)	10,15,20,25
print(w, x, y, z, sep=',')	10152025
print(w, x, y, z, sep='')	10:15:20:25
print(w, x, y, z, sep=':')	10-----15-----20-----25
print(w, x, y, z, sep='-----')	
x = 6	6
print(6)	6
print("6")	
x = 7	7
print(x)	x
print("x")	
value1 = eval(input('Please enter a number: '))	Please enter a number: 3
value2 = eval(input('Please enter another number: '))	Please enter another number: 2
sum = value1 + value2	3 + 2 = 5
print(value1, '+', value2, '=', sum)	
x, y, z = 3, -4, 0	
x = -x	
y = -y	
z = -z	
print(x, y, z)	-3 4 0
print(-(4 - 5))	1
print(10/3, 3/10, 10//3, 3//10)	3.3333333333333335 0.3 3 0
print(10%3, 3%10)	1
print(10.0/3.0, 3.0/10.0, 10.0//3.0, 3//10.0)	1 3 3.3333333333333335 0.3 3.0 0.0
one = 1.0	one = 1.0 one_third = 0.3333333333333333 zero =
one_third = 1.0/3.0	1.1102230246251565e-16
zero = one - one_third - one_third - one_third	
print('one =', one, ' one_third =', one_third, ' zero =', zero)	
one = 1.0	one = 1.0 one_tenth = 0.1 zero =

one_tenth = 1.0/10.0	1.1102230246251565e-16
print('one =', one, ' one_tenth =', one_tenth, ' zero =', zero)	
print(-3 + 2)	-1
print(-(3 + 2))	-5
dividend, divisor = eval(input('Please enter two numbers to divide: '))	Please enter two numbers to divide: 3,5
print(dividend, '/', divisor, "=", dividend/divisor)	3 / 5 = 0.6
value = eval(input('Please enter a number to cut in half: '))	Please enter a number to cut in half: 32
print(value/2)	16.0
degreesF = eval(input('Enter the temperature in degrees F: '))	Enter the temperature in degrees F: 23
degreesC = 5/9*(degreesF - 32);	23 degrees F = -5.0 degrees C
print(degreesF, "degrees F =", degreesC, 'degrees C')	
seconds = eval(input("Please enter the number of seconds:"))	Please enter the number of seconds:43
hours = seconds // 3600 # 3600 seconds = 1 hours	0 hr, 0 min, 43 sec
seconds = seconds % 3600	
minutes = seconds // 60 # 60 seconds = 1 minute	
seconds = seconds % 60	
print(hours, "hr,", minutes, "min,", seconds, "sec")	
seconds = eval(input("Please enter the number of seconds:"))	Please enter the number of seconds:45
hours = seconds // 3600 # 3600 seconds = 1 hours	
seconds = seconds % 3600	
minutes = seconds // 60 # 60 seconds = 1 minute	
seconds = seconds % 60	
print(hours, ".", sep=":", end="")	
tens = minutes // 10	0:00:45
ones = minutes % 10	
print(tens, ones, ":", sep=":", end="")	
tens = seconds // 10	Enter the temperature in degrees F: 24
ones = seconds % 10	24 degrees F = -17.77777777777778 degrees C
print(tens, ones, sep =":")	
degreesF, degreesC = 0, 0	
degreesC = 5/9*(degreesF - 32)	
degreesF = eval(input('Enter the temperature in degrees F: '))	
print(degreesF, "degrees F =", degreesC, 'degrees C')	
x1 = 2	3
x2 = 2	1
x1 += 1	
x2 -= 1	
print(x1)	
print(x2)	

# DICTIONARY

1. What will be the output of the following Python code snippet?

```
d = {"john":40, "peter":45}
"john" in d
```

- a) True
- b) False
- c) None
- d) Error

2. What will be the output of the following Python code snippet?

```
d1 = {"john":40, "peter":45}
d2 = {"john":466, "peter":45}
d1 == d2
```

- a) True
- b) False
- c) None
- d) Error

3. What will be the output of the following Python code snippet?

```
d = {"john":40, "peter":45}
d["john"]
```

- a) 40
- b) 45
- c) "john"
- d) "peter"

4. Suppose d = {"john":40, "peter":45}, to delete the entry for "john" what command do we use?

- a) d.delete("john":40)
- b) d.delete("john")
- c) del d["john"]
- d) del d("john":40)

5. What will be the output of the following Python code snippet?

```
d = {"john":40, "peter":45}
print(list(d.keys()))
```

- a) ["john", "peter"]
- b) ["john":40, "peter":45]
- c) ("john", "peter")
- d) ("john":40, "peter":45)

6. Suppose `d = {"john":40, "peter":45}`, what happens when we try to retrieve a value using the expression `d["susan"]`?

- a) Since "susan" is not a value in the set, Python raises a `KeyError` exception
- b) It is executed fine and no exception is raised, and it returns `None`
- c) Since "susan" is not a key in the set, Python raises a `KeyError` exception
- d) Since "susan" is not a key in the set, Python raises a syntax error

7. Which of these about a dictionary is false?

- a) The values of a dictionary can be accessed using keys
- b) The keys of a dictionary can be accessed using values
- c) Dictionaries aren't ordered
- d) Dictionaries are mutable

8. Which of the following is not a declaration of the dictionary?

- a) `{1: 'A', 2: 'B'}`
- b) `dict([[1, "A"], [2, "B"]])`
- c) `{1, "A", 2, "B"}`
- d) `{ }`

9. What will be the output of the following Python code snippet?

```
a={1:"A",2:"B",3:"C"}
for i,j in a.items():
    print(i,j,end=" ")
```

- a) 1 A 2 B 3 C
- b) 1 2 3
- c) A B C
- d) 1:"A" 2:"B" 3:"C"

10. What will be the output of the following Python code snippet?

```
a={1:"A",2:"B",3:"C"}
print(a.get(1,4))
```

- a) 1
- b) A
- c) 4
- d) Invalid syntax for get method

11. What will be the output of the following Python code snippet?

```
a={1:"A",2:"B",3:"C"}
```



```
print(a.get(5,4))
```

- a) Error, invalid syntax
- b) A
- c) 5
- d) 4

12. What will be the output of the following Python code?

```
a={1:"A",2:"B",3:"C"}  
b={4:"D",5:"E"}  
a.update(b)  
print(a)
```

- a) {1: 'A', 2: 'B', 3: 'C'}
- b) Method update() doesn't exist for dictionaries
- c) {1: 'A', 2: 'B', 3: 'C', 4: 'D', 5: 'E'}
- d) {4: 'D', 5: 'E'}

13. What will be the output of the following Python code?

```
a={1:"A",2:"B",3:"C"}  
b=a.copy()  
b[2]="D"  
print(a)
```

- a)Error, copy() method doesn't exist for dictionaries
- b) {1: 'A', 2: 'B', 3: 'C'}
- c) {1: 'A', 2: 'D', 3: 'C'}
- d) "None" is printed

14. What will be the output of the following Python code?

```
a={1:"A",2:"B",3:"C"}  
a.clear()  
print(a)
```

- a) None
- b) { None:None, None:None, None:None}
- c) {1:None, 2:None, 3:None}
- d) { }

15. What will be the output of the following Python code?

```
a={1:5,2:3,3:4}
```

```
a.pop(3)
print(a)
```

- a) {1: 5}
- b) {1: 5, 2: 3}
- c) Error, syntax error for pop() method
- d) {1: 5, 3: 4}

16. What will be the output of the following Python code?

```
a={1:5,2:3,3:4}
a.pop(3)
print(a)
```

- a) {1: 5}
- b) {1: 5, 2: 3}
- c) Error, syntax error for pop() method
- d) {1: 5, 3: 4}

17. What will be the output of the following Python code?

```
a={1:"A",2:"B",3:"C"}
for i in a:
    print(i,end=" ")
```

- a) 1 2 3
- b) 'A' 'B' 'C'
- c) 1 'A' 2 'B' 3 'C'
- d) Error, it should be: for i in a.items():

18. What will be the output of the following Python code?

```
>>> a={1:"A",2:"B",3:"C"}
>>> a.items()
```

- a) Syntax error
  - b) dict\_items([('A'), ('B'), ('C')])
  - c) dict\_items([(1,2,3)])
  - d) dict\_items([(1, 'A'), (2, 'B'), (3, 'C')])
-



EAST POINTS PUBLIC SCHOOL

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CLASS-11

SUBJECT: HISOTRY

## CHAPTER 9

### Industrial Revolution class 11 Notes History

#### Meaning & Background

- The term 'Industrial Revolution' was used by European scholars – George Michelet in France and Friedrich Engles in Germany.
- It refers to the great change in the field of industries when the production of goods by hand in the houses were replaced with the help of machines in factories.
- The transformation of industry and the economy in Britain between the 1780s and the 1850s is called the 'first industrial revolution'.
- It was used for the first time in English by the philosopher and economist Arnold Toynbee (1852-83), to describe the changes that occurred in British industrial development between 1760 and 1820. These dates coincided with those of the reign of George III.
- It revolutionised the techniques and organisation of production in the later half of the eighteenth century.

#### CAUSES

**(i) Economic** – There was remarkable economic growth from the 1780s to 1820 in the cotton and iron industries, in coal mining, in the building of roads and canals and in foreign trade.

**(ii) Political** – The series of incidents occurred in British industrial development between 1760 and 1820. These dates coincided with those of the reign of George III.

#### **\*\* Why Britain?:**

It had been politically stable since the seventeenth century, with England, Wales and Scotland unified under a monarchy. This meant that the kingdom had common laws, a single currency and a market that was not fragmented by local authorities. Besides, England had great domestic and international market under its control which helped in the growth of Industrial Revolution.

- Towns – From the eighteenth century, many towns in Europe were growing in area and in population. Population of most of the European cities doubled between 1750 and 1800. The largest of them was

London, which served as the hub of the country's markets, with the next largest ones located close to it. London had also acquired a global significance.

- Finance – The Bank of England was founded in 1694.
- Coal & Iron – Coal and Iron ore were important raw materials. Abraham Darby invented the blast furnace in 1709. World's first iron bridge was built during this period
- Agricultural Revolution – In the eighteenth century, England had been through a major economic change, later described as the 'agricultural revolution'. This was the process by which bigger landlords had bought up small farms near their own properties and enclosed the village common lands. The agricultural revolution laid down the foundation of the Industrial Revolution.

### **(iii) Geographical –**

- In the seventeenth century, Wales and Scotland were unified. London was the largest city as well as a city of global trade. England had a number of colonies in Asia, Africa and Europe. These helped in obtaining the raw material for industries.
- By the eighteenth century, the centre of global trade had shifted from the Mediterranean ports of Italy and France to the Atlantic ports of Holland and Britain.

## **CONSEQUENCES**

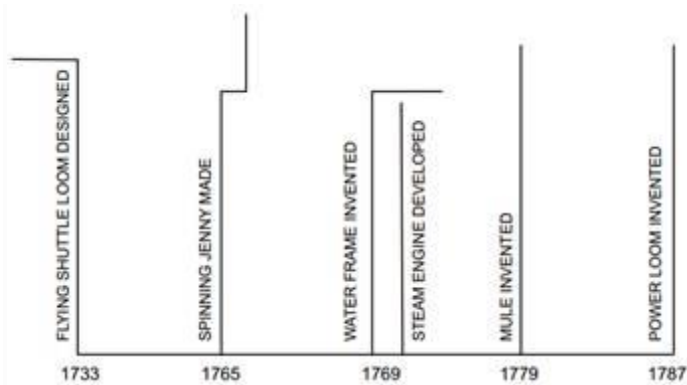
### **(i) Positive Effects**

The onset of textile industry also helped in the emergence of Industrial Revolution.

#### **(a) Invention of Machines in Cotton Industry:**

- The flying shuttle loom invented by John Kay in 1733 revolutionised the textile industry.
- The spinning jenny
- The water frame
- The mule
- Powerloom

## **Road Map of Industrial Revolution**



### (b) Increase in Production

### (c) Introduction of Railways & Canals

Railways took the industrialization to the second stage.

- Thomas Savery built a model steam engine the Miner's Friend in 1698.
- Another steam engine was built by **Thomas Newcomen** in 1712. The steam engine had been used only in coal mines until **James Watt** developed a perfect steam engine in 1769 and established the Soho Foundry in Birmingham.
- James Brindley built the **First English Canal in 1761**. The 'canal mania' prevailed from 1788 to 1796.
- The first steam locomotive, **Stephenson's Rocket**, appeared in 1814.
- Richard Trevithick devised an engine – the 'Puffing Devil' in 1801 and a locomotive – **'The Blucher'** in 1814.
- The First railway line ran between Stockton and Darlington..
- The 'little railway mania' prevailed from 1833 to 1837 and the bigger 'mania' from 1844 to 1847.

**Advantages and Disadvantages** – In the 1830s, the use of canals revealed several problems. The congestion of vessels made movement slow on certain stretches of canals, and frost, flood or drought limited the time of their use. The railways now appeared as a convenient alternative. About 6,000 miles of railway was opened in Britain between 1830 and 1850, most of it in two short bursts. During the 'little railway mania' of 1833-37, 1400 miles of line was built, and during the bigger 'mania' of 1844-47, another 9,500 miles of line was sanctioned.

### (d) Changed life

- Profits: Some rich individuals who took risks and invested money in industries in the hope that profits could be made, and that their money would 'multiply'. In most cases this money – capital – did multiply. Wealth, in the form of goods, incomes, services, knowledge and productive efficiency, did increase dramatically.

- Huge population: The number of cities in England with a population of over 50,000 grew from two in 1750 to 29 in 1850. This pace of growth was not matched with the provision of adequate housing, sanitation or clean water for the rapidly growing urban population.

## **(ii) Negative Effects**

(a) Condition of workers: There was, at the same time, a massive negative human cost. This was evident in broken families, new addresses, degraded cities and appalling working conditions in factories. The condition of workers was quite miserable. They became victims of restlessness, epidemics and diseases.

(b) Employment of Women and Children in industries: The Industrial Revolution was a time of important changes in the way that children and women worked. The earnings of women and children were necessary to supplement men's meagre wages. Factory managers considered child labour to be important training for future factory work

## **(c) Protest Movement**

- **Meaning**: Industrialisation led to greater prosperity for some, but in the initial stages it was linked with poor living and working conditions of millions of people, including women and children. This sparked off protests, which forced the government to enact laws for regulating conditions of work.
- **Luddism** – Luddism (1811-17) fought for the workers affected by new machines. It was led by the charismatic General Ned Ludd. Its participants demanded a minimum wage, control over the labour of women and children, work for those who had lost their jobs because of the coming of machinery, and the right to form trade unions so that they could legally present these demands.
- **Result**: The government reacted by repression and by new laws that denied people the right to protest. For this reason they passed two Combination Acts and supported Corn Laws. Through the Act of 1833 more children were put to work in coal mines.

## **Reform laws**

- Laws were passed in 1819 prohibiting the employment of children under the age of nine in factories and limiting the hours of work of those between the ages of nine and sixteen to 12 hours a day
- The Mines and Collieries Act of 1842 banned children under 10 and women from working underground.

- The Ten Hours' Bill was introduced in 1847, after more than 30 years of agitation. It limited the hours of work for women and young people, and secured a 10-hour day for male workers.
- Fielder's Factory Act in 1847 prohibited children and women from working more than 10 hours a day.
- In eighteenth century, England witnessed the "Agricultural Revolution and the process of 'enclosure'".

## THE DEBATE

- Until the 1970s, historians used the term 'industrial revolution' for the changes that occurred in Britain from the 1780s to the 1820s. From then, it was challenged, on various grounds. Industrialisation had actually been too gradual to be considered a 'revolution'. It carried processes that already existed towards new levels. England had changed in a regional manner, prominently around the cities of London, Manchester, Birmingham or Newcastle, rather than throughout the country.
- Indicators of economic change occurring before and after 1815-20 suggest that sustained industrialisation was to be seen after rather than before these dates.
- The word 'industrial' used with the word 'revolution' is too limited. The transformation extended beyond the economic or industrial sphere and into society and gave prominence to two classes: the bourgeoisie and the new class of proletarian labourers in towns and in the countryside

**Timeline:** Refer to page 201

**Keywords:** Industrial Revolution, Luddism, protest movement, laws, steam engine, metallurgy, iron smelting, powerloom, canal.

## MODAL QUESTIONS

1. What do you understand by Industrial Revolution?
2. When and where did the Industrial Revolution begin?
3. Who was Abraham Darby?
4. Write the names of some new machineries and technologies.
5. Who coined the term Industrial Revolution first?
6. Who was Arnold Toynbee?
7. How did Britain become the father of Industrial Revolution?

8. What do you mean by Agricultural Revolution in England?
9. What was the effect of Agricultural Revolution?
10. Who designed flying shuttle loom?
11. What were the advantages of spinning jenny?
12. Who invented water frame?
13. What does rapid increase in the population of a city show?
14. What was the contribution of rivers to the proliferation of London as a centre of trade?
15. What do you mean by coasters?
16. Write the use of coaster.
17. Who was Thomas Newcomen?
18. What were the social effects of the Industrial Revolution on England?
19. How did industrialization change the farming technique?
20. What were the positive sides of the Industrial Revolution?

### **Short Answer Type Questions**

1. Industrial Revolution with its demand for raw material and markets made nations more dependent on one another. How?
2. The growth of trade union helped to put an end to the idea of Laissez faire. How?
3. Industrialisation was a natural step in the progress of mankind. Why?
  
4. What was the opinion of Karl Marx about socialism?
  
5. Industrialization has affected farming, transportation, communication and trade in many ways. How?
6. Explain the advantages that a socialist system can have over a society based on capitalism.
7. Why did Industrial Revolution first occur in England? Give reasons. [HOTS]
  
8. What were the main features of the Industrial Revolution in England?
9. Describe the conditions that denote industrialization.
  
10. The invention of steam engine revolutionized industry and transport. How?
11. What do you know about 'Luddism'? Explain.

### **Read the following passages and answer the questions that follow:**

Passage 1.

'The man of wealth and pride  
 Takes up a space that many poor supplied;  
 Space for his lake, his park's extended bounds,  
 Space for his horses, equipage, and hounds;  
 The robe that wraps his limbs in silken cloth  
 Has robbed the neighboring fields of half their growth.



— Oliver Goldsmith, The Deserted Village.

Questions

- (i) Who wrote this? Write the name of the book from which it was taken.
- (ii) What do you understand by the Enclosure Movement?
- (iii) Write any two effects of this movement.

Passage 2.

In his novel *Hard Times*, Charles Dickens (1812-70), perhaps the most severe contemporary critic of the horrors of industrialization for the poor, wrote a fictional account of an industrial town he aptly called Coketown. 'It was a town of red brick, or of brick that would have been red if the smoke and ashes had allowed it; but as matters stood it was a town of unnatural red and black like the painted face of a savage. It was a town of machinery and tall chimneys, out of which interminable serpents of smoke trailed themselves for ever and ever, and never got uncoiled. It had a black canal in it, and a river that ran purple with ill-smelling dye, and vast piles of building full of windows where there was a rattling and a trembling all day long, and where the piston of the steam-engine worked monotonously up and down, like the head of an elephant in a stare of melancholy madness.

Questions:

- (i) Who was Charles Dickens?
- (ii) About which period and the country he is talking about in this passage?
- (iii) Highlight any four social problems mentioned here.

Passage 3.

D.H.Lawrence (1885-1930), British essayist and novelist, writing seventy years after Dickens, described the change in a village in the coal-belt, change which he had not experienced, but about which he had heard from older people. 'Eastwood... must have been a tiny village at the beginning of the nineteenth century, a small place of cottages and fragmentary rows of little four-roomed miners' dwellings, the homes of the old colliers...But somewhere about 1820 the company must have sunk the first big shaft...and installed the first machinery of the real industrial colliery...Most of the little rows of dwellings were pulled down, and dull little shops began to rise along the Nottingham Road, while on the down-slope...the company erected what is still known as the New Buildings...little four-room houses looking outward into the grim, blank street, and the back looking into the desert of the square, shut in like a barracks enclosure, very strange.

Questions:

- (i) What do you know about D.H. Lawrence? What did he describe?
- (ii) Which particular class is he referring to?
- (iii) Write a few effects of early industrialization on villages and towns.

## **Class 11 History Chapter 3 Map Skills**

Question 1.

On the given map of Britain, mark and locate the following iron and coal manufacturing areas.

- (i) Leeds
- (ii) Sheffield
- (iii) Liverpool
- (iv) Bristol
- (v) Swansea

Question 2.

On the map of Britain, mark and locate the following cotton textile manufacturing areas.

- (i) Newcastle
- (ii) Nottingham
- (iii) Birmingham
- (iv) Glasgow
- (v) Leicester
- (vi) London

## PSYCHOLOGY

**DURATION: 3HRS**

### **(OBJECTIVE QUESTIONS: 1 MARK)**

- 1) Pavlov's initial interest in classical conditioning was stimulated when he observed his research dog salivating at the site of-----
- 2) In classical conditioning, an unlearned, inborn reaction to an unconditioned stimulus is called-----
- 3) Sunita was trying to operant condition her dog to roll over. Each time her dog rolled over she immediately said "Good Dog" however the dog did not roll over on command why?-----
- 4) Behaviour that is reinforced because it causes a negative event to stop-----  
-----
- 5) little Albert was conditioned to fear a white rat. He also displayed fear response to a white rabbit and a white coat. This is an example of-----
- 6) Rashid disruptive classroom behaviour stops because the teachers and other students no longer pay attention to the behaviour. The process is called-----
- 7) Those who are concerned about the effects that televised aggression has on children are likely to focus on-----

### **(VERY SHORT QUESTIONS: 4 MARKS)**

- 8) How learning is different from performance?
- 9) What do you mean by the S-S learning?
- 10) Differentiate between negative reinforcement and punishment.
- 11) Explain the process of a spontaneous recovery.
- 12) Differentiate between Generic transfer and Specific transfer.

### **(SHORT QUESTIONS: 4 MARKS)**

- 13) "Learning is a relatively in permanent change in behaviour potential produced by experiences". This process of learning has several distinct characteristics? Explain these characteristics in detail.
- 14) Rahul is an 8 year old boy who was whenever prosecuted with a teddy bear in the experimental room a fearful sound was made. This made Rahul fearful of the white furry objects.

- (i) What kind conditioning is taking place here in this situation?
  - (ii) Differentiate between the two types of conditioning.
- 15)** Differentiate between appetitive and aversive conditioning.
- 16)** Discuss the various types of experimental arrangements that can be made during classical conditions.
- 17)** “Human beings learn short cuts to attain desired goals through instrumental conditioning”. Discuss.
- 18)** Explain the schedules of reinforcement in detail.
- 19)** Explain the phenomenon of spontaneous recovery in detail with the help of diagram.
- 20)** “According to a psychologist, one learns a lot through observation and social learning”.
- (a) Which theory is being mentioned here and who gave this theory?
  - (b) Explain the theory with the help of an example.
- 21)** Differentiate between (a) Insight and latent learning (b) Serial & Paired Associate learning.
- 22)** Simran is a 5 years old girl studying in class I. She has difficulty in writing letters, understanding oral instructions, poor motor co-ordination and cannot sustain attention.
- (a) What is the problem she is currently going through?
  - (b) Explain any other 5 symptoms in detail.

**VIDEO LINK:** <https://unacademy.com/lesson/solutionsch-6-learning/IQEY0YVL>

## WEEKLY ASSIGNMENT

### PHYSICAL EDUCATION

**Q.1.** Which one of the following is not a component of wellness.

- (a) Mental well being
- (b) Maximum strength
- (c) Moral well being
- (d) Emotional well being

**Q.2.** Who was the first president of Indian Olympic association IOA?

- (a) Sir Dorabji Tata
- (b) Jwahan Lal Nehru
- (c) Sardar Patel
- (d) Mahatama Gandhi

**Q.3.** The 2020 Olympic aril be held in—

- (a) Los Angelo
- (b) India
- (c) Mexico
- (d) Tokyo

**Q.4.** The Ancient Olympic games user organised in he honour of—

- (a) Heracules
- (b) Theondosis
- (c) Posedon
- (d) Zues

*Or*

Who is known as the father of modern Olympic games

- (a) Prof Jigarokino
- (b) Sir Dorabji Tata
- (c) Jacu Rogges
- (d) Perrie DCoubertin

**Q.5.** How many rings are their in Olympic flag—

- (a) Three
- (b) Two
- (c) Five
- (d) Four

**Q.6.** Which of the following is coordinatine obility—

- (a) Sports announcer
- (b) Spots photo grapher
- (c) Umpires
- (d) Sports Journalist

**Q.7.** Special Olympic Bharat started in—

- (a) 2001
- (b) 1948
- (c) 1995
- (d) 2005

**Q.8.** Deaf Olympic started in—

- (a) 1960
- (b) 1924
- (c) 1947
- (d) 2001

**Q.9.** The head quartn of parolympic are situated in—

- (a) Paris
- (b) New yrok
- (c) Germany
- (d) Denmark

**Q.10.** 'Spirit in motion' is the motto of—

- (a) Paralympic (b) Special Olympic
- (c) Modern Olympic (d) Deaflympic

**Q.11.** Inclusion is needed for—

- (a) Hearing impaired (b) Loss of limb
- (c) Blind people (d) All of these

**Q.12.** Which of the following is not an asana—

- (a) Kapalbharti (b) Trikonasana
- (c) Shashankasana (d) Naukasana

*Or*

Which of the following is an adventure sport?

- (a) Trekking (b) Paragliding
- (c) Surfing (d) All the above

**Q.13.** Find one word answers for the statements: raise your head, stand erect, raise your arms—

- (a) Padmasana (b) Garudasana
- (c) Tadasana (d) Shashankasana

**Q.14.** Which is not a quality of a good leader?

- (a) Autocratic (b) Dictator
- (c) Both (d) None of the above

**Q.15.** Who has a pear-shaped body?

- (a) Endomorph (b) Mesomorph
- (c) Ectomorph (d) All the above

**Q.16.** Body weight = 50 kg, Height = 155 cm, find the BMI

- (a) 20.81 (b) 21.53
- (c) 19.81 (d) 23.02

*Or*

BMI of a person is 32, he is...

- (a) Overweight (b) Obesity grade-II
- (c) Healthy (d) Underweight

**Q.17.** Ball and socket joint is situated at

- (a) Shoulder (b) Wrist
- (c) Neck (d) Knee

**Q.18.** A 19 year old boy fall in the catagery of

- (a) Late childhood
- (b) Adoloscance
- (c) Infancy
- (d) None of these

**Q.19.** Which of the following is not a sign of growth

- (a) Increase in height
- (b) Increase in weight
- (c) Increase in talking
- (d) Increased hairlength

**Q.20.** Which is a method of warming up

- (a) Sauna bath
- (b) Jogging
- (c) Streching
- (d) All of them





## WEEKLY ASSIGNMENT

### YOGA

- 1- What is diet?
- 2- How many types of diets according to srimad bhagwadgita? Write their names.
- 3- write any two sitting asana.
- 4- Define asana according to PYS?
- 5- Which diet is prefer for yoga sadhak? According to Hathpradipika.

## CI 11 geography assignments

### Revision assignment

Topic....water in the atmosphere

1. Define humidity.
2. Distinguish between relative humidity and absolute humidity.
3. Find out what is latent heat of vaporization, condensation, sublimation,
4. Explain the different form of water vapour after condensation.
5. How are clouds classified?
6. Name the three types of precipitation with salient features.

## VERY SHORT ANSWER TYPE QUESTIONS (1 MARK)

1. Three consecutive vertices of a parallelogram are  $(-2, -1)$ ,  $(1, 0)$  and  $(4, 3)$ , find the fourth vertex.
2. For what value of  $k$  are the points  $(8, 1)$ ,  $(k, -4)$  and  $(2, -5)$  collinear?
3. The mid point of the segment joining  $(a, b)$  and  $(-3, 4b)$  is  $(2, 3a + 4)$ . Find  $a$  and  $b$ .
4. Coordinates of centroid of  $\triangle ABC$  are  $(1, -1)$ . Vertices of  $\triangle ABC$  are  $A(-5, 3)$ ,  $B(p, -1)$  and  $C(6, q)$ . Find  $p$  and  $q$ .
5. In what ratio  $y$ -axis divides the line segment joining the points  $(3, 4)$  and  $(-2, 1)$  ?
6. What are the possible slopes of a line which makes equal angle with both axes?
7. Determine  $x$  so that slope of line through points  $(2, 7)$  and  $(x, 5)$  is 2.
8. Show that the points  $(a, 0)$ ,  $(0, b)$  and  $(3a - 2b)$  are collinear.

Political science

REVISION ASSIGNMENT

CHP- RIGHTS

Q1 What are rights and why are they important? What are the bases on which claims to rights can be made?

Q2 On what grounds are some rights considered to be universal in nature? Identify three rights which you consider universal. Give reasons.

Q3 Discuss briefly some of the new rights claims which are being put forward in our country today—for example the rights of tribal people to protect their habitat and way of life, or the rights of children against bonded labour.

Q4 Differentiate between political, economic and cultural rights. Give examples of each kind of right.

Q5 Rights limits authority of state.Explain.

<https://youtu.be/wXvBKnfkgbc>

**ASSIGNMENT - CLASS XI**  
**FINANCIAL MARKET MANAGEMENT**

1. What do you mean by exchange traded funds? Explain its salient features.
2. What are REITs?
3. Explain Gold ETF? What are the advantages of investing in a Gold ETF?
4. Explain the working of Gold ETF during NFO and an ongoing basis.
5. What are Sovereign Gold Bonds?
6. Explain Interest rate risk.
7. What is Credit risk?
8. How is a Debt Instrument priced?

**ASSIGNMENT CLASS XI**  
**ACCOUNTANCY**  
**FINANCIAL STATEMENTS OF A SOLE PROPRIETORSHIP**

1. Net Profit for the year ending 31<sup>st</sup> March 2016 is Rs. 1,20,000 before charging manager's commission and interest on loan Rs. 15,000 but after charging income tax Rs. 5,000. Calculate the amount of Manager's commission @10% p.a. on profit after charging such commission:
  - a) 12,000
  - b) 10,500
  - c) 10,000
  - d) 11,500
  
2. Balance of debtors as per Balance Sheet is Rs. 98,000. Net amount of provision to be credited to Profit and loss account is Rs. 8,000(excess provision). Balance of debtors before adjustment as per Trial Balance is Rs. 1,28,000. Provision for doubtful debts is required to be made @20% p.a. What will be the amount of Old Provision as per Trial Balance:
  - a) 16,500
  - b) 19,000
  - c) 19,600
  - d) 18,000
  
3. Building Rent paid as per Profit and loss account is Rs. 2,000. 1/3<sup>rd</sup> of the building is used for production purpose and balance is for official work. Calculate the amount of Rent paid as per Trial Balance:
  - a) 3,000
  - b) 6,000
  - c) 8,000
  - d) 4,000
  
4. Balance of Capital as per Trial Balance is Rs. 1,30,000 as at 31<sup>st</sup> March 2017. Calculate Interest on capital @10% p.a. if additional capital of Rs. 10,000 was introduced on 1<sup>st</sup> October 2016 and withdrawal of same amount was made on 1<sup>st</sup> January 2017.
  - a) 10,000
  - b) 13,000
  - c) 13,250
  - d) 9,750
  
5. We record Indirect incomes at :
  - a) Credit side of Profit and loss A/c
  - b) Credit side of Trading account
  - c) Credit side of Trading and Profit and loss Account
  - d) Debit side of Trading and Profit and loss Account
  
6. Unexpired expense is also known as
  - a) Outstanding expense
  - b) Prepaid expense
  - c) Deferred Revenue Expense
  - d) None of these

7. Failure to make adjustment entry related to Accrued Income means showing
- More Gross profit
  - More Gross profit and Net profit
  - Less Net profit
  - Less Gross profit and Net profits
8. What will be the entry of Provision for bad and doubtful debts
- Profit and loss A/c dr.  
To Provision for discount on debtors
  - Provision for bad and doubtful debts A/c dr.  
To Profit and Loss A/c
  - Trading Account Dr.  
To Provision for bad and doubtful debts
  - None of these
9. As per Trial balance, balance of Insurance premium on 31<sup>st</sup> March, 2016 is Rs. 12,000. It is paid on 1<sup>st</sup> June 2015 for the full year. Amount to be shown in Profit and loss Account:
- 12,000
  - 10,000
  - 11,000
  - 9,000

10. Extract of Trial Balance as at 31<sup>st</sup> March, 2016

	Debit	Credit
Bank Loan @ 10% p.a. ( 1 <sup>st</sup> July 2015)		1,00,000
Interest on loan	10,000	

Interest on loan will be shown

- Rs. 7,500 in profit and loss A/c and Rs. 2,500 in Balance sheet Liabilities side
  - 10,000 in profit and loss A/c and Rs. 7,500 in Balance sheet Asset side
  - Rs. 7,500 in profit and loss A/c and Rs. 2,500 in Balance sheet Asset side
  - Rs. 7,500 in profit and loss A/c and Rs. 7,500 in Balance sheet Liabilities side
11. Provision for discount on debtors is created as a percentage of:
- Debtors – New provision + old provision for bad and doubtful debts
  - Debtors – further Bad debts +old provision for bad and doubtful debts
  - Debtors – further bad debts – old provision for bad and doubtful debts – New provision for bad and doubtful debts
  - Debtors – Further bad debts – New provision for bad and doubtful debts
12. Net profit of the year ending 31<sup>st</sup> March 2017 is Rs. 40,000 after considering following adjustments  
 Manager's commission @20% p.a. of the net profit after charging such commission.  
 Interest on Investment Rs. 20,000  
 Bad debts Rs. 5,000  
 Calculate Gross profit:
- 33,000
  - 58,000
  - 35,000

d) 60,000

13. In case of payment of Prepaid Rent which account will be credited:

- a) Rent
- b) Cash
- c) Prepaid Rent
- d) None of these

14. Closing Stock is valued at

- a) Cost price or Realisable value whichever is more
- b) Cost Price
- c) Cost price or Realisable value whichever is less
- d) Realisable value

15. Goods costing Rs. 5,000 was destroyed by fire. The Insurance company admitted claim for Rs. 3,000 only. What amount will you deduct from purchases:

- a) 5,000
- b) 3,000
- c) 2,000
- d) None of these

16. If outstanding expenses are given inside the Trial Balance .It will be shown:

- a) Dr. side of Profit and loss Account and Asset side of Balance sheet
- b) Dr. side of Profit and loss Account and Liabilities side of Balance sheet
- c) Cr. side of Profit and loss Account and Asset side of Balance sheet
- d) None of these

17. The Manager is entitled to commission @ 5% p.a. on profit before deducting the commission. The net profit after charging such commission is Rs. 3,80,000. Manager's commission will be:

- a) 19,000
- b) 20,000
- c) 18,095
- d) None of these

18. Extract of Trial balance as at 31<sup>st</sup> March, 2017

	Debit	Credit
Building(1/2 of the machinery is purchased on 1 January, 2017)	1,50,000	

Depreciation on the machinery @ 33 1/3% p.a. will be:

- a) 50,000
- b) 26,250
- c) 31,250
- d) 35,250



19. Value of Plant appearing in Trail balance is Rs. 1,00,000. Plant is used partially for office use and partially for factory. Where will you show depreciation @ 10% p.a. in this case :
- a) in Trading account and Balance sheet
  - b) in Profit and loss account and Balance Sheet
  - c) In Trading account, Profit and loss account and Balance sheet
  - d) None of these
20. Balance of debtors appearing in the Trial Balance is Rs. 1,00,000. During the year Goods costing Rs. 10,000 were sold and dispatched but no entry was passed and one of the Bills Receivables of Rs. 20,000 got dishonoured was not recorded. Create provision for doubtful debts @20% p.a. after considering above changes:
- a) Rs. 22,000
  - b) Rs. 18,000
  - c) Rs. 20,000
  - d) Rs. 26,000

Class XI  
English  
Assignment

**VOICE OF THE RAIN**

**High Achievers**

1. How is the cyclic movement of rain brought out in the poem "The Voice of the Rain"?
2. What points of similarity do you notice between rain and music?
3. "Behind the apparent simplicity, the poem hides a deep meaning." What exactly does the poem convey to the reader?
4. How does the rain justify its claim 'I am the Poem of Earth'?
5. How does the rain become the voice of Earth?
6. Why do you think the poet says the phrase 'reck'd or unreck'd'?

**Average Achievers**

1. Why does the poet get surprised when he gets an answer from the rain?
2. Describe the never ending cycle of rain.
3. Why does the rain call itself 'impalpable'?
4. What happens when it rains after a long hot spell?
5. Latent seeds get a life by rain. Explain.
6. Why is rain essential for Earth?
7. Justify the title 'The Voice of the Rain'.
8. The poem has a conversational tone throughout. Who are the two participants? Is there any advantage of this method?

**Low Achievers**

1. To what does Whitman compare the formation of rain and why?
2. Why does the rain descend 'on the earth'?
3. Explain "I give life to my own origin" in the poem 'The Voice of the Rain'.  
Or  
How does rain give back life to its own origin?  
Or  
Why does the rain say, "I give back life to my own origin"?.
4. What answer does the rain give back to the poet?
5. How does the rain describe itself in the poem 'The Voice of the Rain'?
6. Who are the speakers in the poem? Which lines give you this information?

1. Calculate mean and standard deviation from the following using Actual mean method :

Shoulder length in inches	No. of customers
12	5
12.5	20
13	30
13.5	43
14	60
14.5	56
15	37
15.5	16
16	3

2. Calculate Standard deviation and variance from the following using step deviation method :

Age	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
No. of Patients	5	8	7	12	28	20	10	10

3. Calculate Standard deviation from the following series using direct method :  
11, 14, 17, 20, 23, 26, 29

4. Calculate Variance :

Marks	No of students
0-10	2
10-20	4
20-30	5
30-40	9
40-50	10
50-60	5
60-70	15

5. Calculate coefficient of standard deviation from the following using short cut method :

Income (in thousands)	100	110	150	200	210
No. of employees	1	2	3	3	1

EAST POINT SCHOOL

Assignment - CHP – BIOMOLECULES

Class 11 – Biology

Q.1. Classify the following based on whether they were initially received as a natural product or as a synthetic chemical.

**Q.2. Classify the following into one of the appropriate bonds – ester bond, peptide bond, glycosidic bond, hydrogen bond.**

**a) Polysaccharide b) Protein c) Fat d) Water**

**Q.3. Name any one sugar, amino acid, fatty acid, nucleotide.**

**Q.4. How are co-factors different from prosthetic groups?**

**Q.5. Chitin, Cellulose, Glycogen, Polysaccharides and Starch are present in the following options. Choose and write appropriately against each.**

**a) Cotton fibre b) Exoskeleton of Cockroach c) Liver d) Peeled Potato**

**Q.6. Alanine and Glycine are different with regards to one substituent on the  $\alpha$ -carbon.**

**Mention other common substituent groups.**

**Q.7. Oxidoreductase catalyzes the following reaction between substrates A and A', complete the reaction**

**A reduced + A' oxidized  $\rightarrow$**

**Q.8. What are Biomolecules?**

**Q.9. Which is the most abundant element found in living organisms?**

**Q.10. How many types of biomolecules are there?**

### **Hindi**

1. जाग तुझको दूर जाना कविता में कवित्री मानव को किन विपरीत परिस्थितियों से आगे बढ़ने के लिए उत्साहित कर रही है?
2. मोम के बंधन और तितलियों के पर का प्रयोग कवित्री ने किस संदर्भ में किया है और क्यों?
3. कवित्री किस माह पूर्व बंधन से मुक्त होकर मानव को जागृति का क्या संदेश दे रही है?
- 4 कविता में अमरता सूत्र का संबोधन किसके लिए और क्यों आया है?
5. जाग तुझको दूर जाना कविता स्वाधीनता आंदोलन की प्रेरणा से रचित एक जागरण गीत है इस कथन के आधार पर कविता की मूल संवेदना लिखिए।

**LEGAL STUDIES- XI**  
**REVISION ASSIGNMENT**

- Q1. Explain the role of legislature as an organ of the Government.
- Q2. Explain the role of executive as an organ of the Government.
- Q3. Explain the role of Judiciary as an organ of the Government.
- Q4. Distinguish with examples, between unicameral and bi-cameral legislature.
- Q5. What does Article 368 refer to?
- Q6. How does the Indian Constitution interpret the 'separation of powers' doctrine?
- Q7. Explain the Concept of Separation of Powers.
- Q8. Write your observations on the study of basic features of Indian Constitution

**ASSIGNMENT**  
**BUSINESS STUDIES (054) CLASS- XI**  
**CHAPTER-2 FORMS OF BUSINESS ORGANISATIONS**

- Q1.** Is registration of partnership firm compulsory? What are the consequences of non-registration?
- Q2.** What are the steps required for raising funds from public?
- Q3.** Differentiate between:
- Memorandum of Association and Articles of Association.
  - Private and Public Company
- Q4.** What do you mean by incorporation of a company? What are the steps involved in incorporation of a company?
- Q5.** Explain different types of partners.

**Physics**

**Assignment-4**

Link- <https://youtu.be/uqyLOuAzbvo>

- Q1 Calculate the work done in blowing a soap bubble from radius of 2 cm to 3 cm. the surface tension of the soap solution is dyne cm-1.
- Q2 A liquid drop of diameter D is breaks up into 27 tiny drops. Find the resulting change in energy. Take surface tension of the liquid as  $\sigma$ .
- Q3 A mercury drop of radius 1.0 cm is sprayed into 106 droplets of equal size. Calculate the energy expended. Surface tension of mercury =  $32 \times 10^{-2}$  Nm-1.

Q4 A liquid drop of diameter 4 mm breaks into 1000 droplets of equal size. Calculate the resultant change in surface energy, the surface tension of the liquid is  $0.07 \text{ Nm}^{-1}$ .

Q5 If a number of little droplets of water of surface tension  $\sigma$ , all of the same radius  $r$  combine to form a single drop of radius  $R$  and the energy released is converted into kinetic energy, find the velocity acquired by the bigger drop.

Q6 What amount of energy will be liberated if 1000 droplets of water, each of diameter  $10^{-8} \text{ m}$ , coalesce to form a bigger drop? Surface tension of water is  $0.072 \text{ Nm}^{-1}$ .

Q7 Calculate the force required to take away a flat plate of radius 5 cm from the surface of water. Given surface tension of water =  $72 \text{ dyne cm}^{-1}$ .