

**St. Mary's School, Dwarka**  
**Holiday Homework**  
**Class X**  
**Week 2**  
**Worksheet 2**

**Subject: English**

**Q1. Read the passage given below.**

Mind management is a way to control one's mind. To do this, we need to be cautious about our thinking process and also need a high level of understanding and meditation as well. Understanding is wisdom – 80 percent of people are knowledgeable, while 20 per cent are wise. Knowledgeable men take sides without reason. They feel sad seeing deprived people but jealous when they see happy people. They work in the guidance of others' inspiration; take unnecessary responsibility to keep themselves disturbed.

A wise person does not stand for or against any idea without concrete reason. He works according to the situation and capacity. He looks at everything intellectually. To him, failure is a **stepping stone** for future success. So depression and conflict are not seen. Like the phrase 'Stop, Look, Go', first one should see and this needs patience. Meditation is necessary to control and manage mind which then becomes an easy task.

Unless we control or manage our mind, it is difficult to achieve success and peace. Psychologists say every interest is first born in the mind as a seed. Then it continues to grow. Later it takes its real form which everybody can see. The interest that first appears in the mind remains weak for the first three minutes and it becomes strong within the next five minutes. All the negative aspects should be deleted within the first three minutes. If not taken out, they would become stronger later and you can never throw them out. After taking control over the mind, we can control passion, interest and unrest. Mind management is essential for a peaceful, successful and healthy life.

The age of computers has thrown us on the escalator of aspirations but has robbed us of simple charms like falling asleep. The compulsions of hectic schedules burden the mind and cause stress. However, the joys that elude us can be regained by practicing power meditation. It creates tranquility, simplifies life and cleanses the mind. It helps control indolence, ego and anger. It builds confidence and patience. With power meditation, negative thoughts get dissipated and a sense of happiness is achieved. In simple terms a common man changes to an exceptional man with the power of meditation.

**On the basis of your understanding of the passage, answer ANY TEN of the following questions.**

**(1/2x10=5)**

**i. Mind management is essential .....**

- a. for a peaceful, successful, and a healthy life.
- b. to remain fit and healthy
- c. for a wealthy and prosperous life.
- d. to dominate others and feel the power

**ii. Traits exhibited by knowledgeable people are .....**

- a. they take sides without reason
- b. they are sympathetic to the deprived people
- c. they are jealous of happy people
- d. All of the above

**iii. According to the passage, who takes sides without reason?**

- a. wise men
- b. knowledgeable men

- c. common man
- d. great men

**iv. Who considers failure as a stepping stone to future success?**

- a. knowledgeable men
- b. a great person
- c. a wise person
- d. None of these

**v. According to the passage, which of the following statement is true?**

- a. Psychologists say every interest is first born in the heart as a seed.
- b. A wise person feels jealous sometimes.
- c. The age of computers has robbed us of simple charms of life.
- d. After taking control over the mind, we cannot control passion.

**vi. What do psychologists say about interest?**

- a. Interest is the backbone of mediation.
- b. Interest stays in our mind for three minutes.
- c. Interest is first born in the mind as a seed.
- d. Interest is essential for a healthy life.

**vii. Find the word from the passage which means the same as “*based on facts, not on ideas*” (Para 2)**

- a. capacity
- b. concrete
- c. conflict
- d. control

**viii. Which of the following is not an outcome of meditation?**

- a. confidence
- b. patience
- c. negative thoughts
- d. tranquillity

**ix. Choose the option that correctly states the meaning of ‘stepping stone’, as used in the passage.**

- a. Flat stepping stones crossed the stream.
- b. This job is a stepping stone to better things.
- c. Our movement in the marshes was helped by a few stepping stones.
- d. Pine apple shaped stepping stones decorated her garden.

**x. What is the reason for stress?**

- a. passion
- b. indolence
- c. hectic schedules
- d. ego

**xi. Which of the following is similar in meaning to 'control'?**

- a. neglect
- b. command
- c. rule
- d. authority

**xii. "If not taken out, they would become stronger later and you can never throw them out." What does the word "them" refer to?**

- a. meditation
- b. confidence
- c. patience
- c. negative emotions

**Q2. Read the extracts given below and attempt the questions that follow.**

**(1/2x5=2.5)**

The house- the only one in the entire valley -sat on the crest of a low hill. From this height one could see the river and the field of ripe corn dotted with the flowers that always promised a good harvest. The only thing the earth needed was a good downpour or at least a shower. Throughout the morning Lencho -who knew his fields intimately- had done nothing but see the sky towards the north-east.

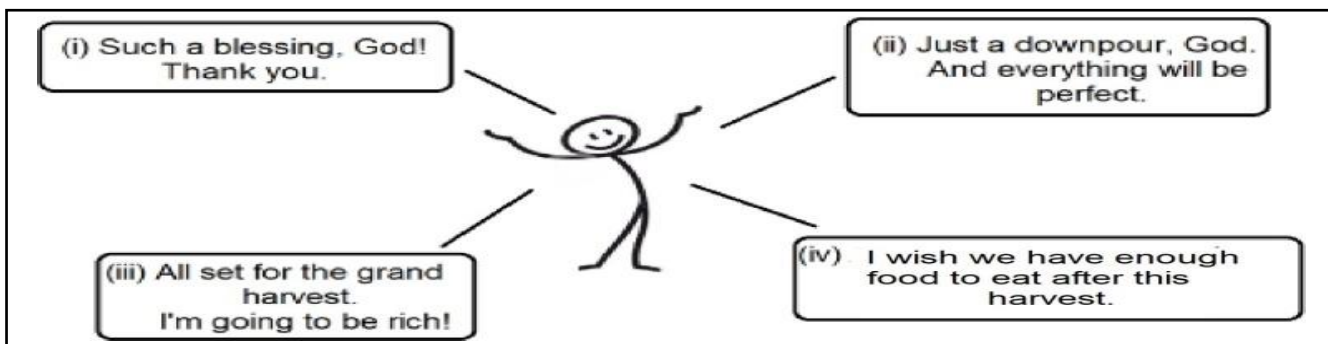
**(i)Based on the detail of the house's location, how can it best be described?**

- a) majestic
- b) imposing
- c) solitary
- d) unique

**(ii)The field of corn dotted with flowers means that**

- a) not a single flower was bigger than a dot
- b) the flowers were scattered across
- c) the flowers were in shaped like dots
- d) the flowers had shrunk in size

**(iii)Based on the given extract, what is Lencho NOT likely to think while looking at his field?**



**(iv) Which quote supports the idea in the given extract?**

- a) "Farming looks mighty easy when your plough is a pencil, and you're a thousand miles from the corn field."
- b) "I would rather be on my farm than be emperor of the world."
- c) "Farming is a profession of hope."
- d) "Those too lazy to plough in the right season will have no food at the harvest."

**(v) Choose the word which means the same as 'intimately'.**

- a) timely
- b) closely
- c) carefully
- d) anxiously

**Q3. Choose the correct options to fill in the blanks.**

**(1/2x5=2.5)**

**(a) \_\_\_\_\_ participants left the meeting in between.**

- A. Several
- B. Much
- C. The few
- D. Little

**(b). It seems that they would need \_\_\_\_\_ workers for the construction.**

- A. little
- B. either
- C. more
- D. some

**(c). Can \_\_\_\_\_ help me?**

- A. everyone
- B. nobody
- C. everybody
- D. somebody

**(d) You can pick \_\_\_\_\_ of two.**

- A. many
- B. more
- C. either
- D. some

**(e). Despite looking for her \_\_\_\_\_, I couldn't find her.**

- A. somewhere
- B. anywhere
- C. everywhere
- D. nowhere

**Q4. Read the following conversation and complete the paragraph that follows. (1/2x4=2)**

Mother: What are you doing?

Radha: I am ironing my dress.

Mother: Can you help me in the kitchen?

Radha: Not now but after I finish my work.

Mother asked Radha(a)\_\_\_\_\_. Radha replied that (b)\_\_\_\_\_. Mother further asked Radha(c) \_\_\_\_\_. Radha said that(d)\_\_\_\_\_.

**Q5. Fill in the blanks with the correct form of the word given in the bracket. (1/2x4=2)**

Abdul(a)\_\_\_\_\_ (reach) the Feroze Shah Kotla Stadium quite late. On reaching there he found that the organisers(b)\_\_\_\_\_ (already close) the ticket booking window. Most of the spectators (c)\_\_\_\_\_ (take) their seats. Abdul(d) \_\_\_\_\_ (disappoint) with himself as he couldn't see the match.

**Q6. You are Mohit Sharma residing at Flat No. 22, Street No.10, Mandela Road, Uttam Nagar, Pune -25. Write a letter to the Editor of the local daily in about 120 words expressing your concern about the nuisance created by the loud speakers in your locality. Also suggest some ways to counter the problems. (3)**

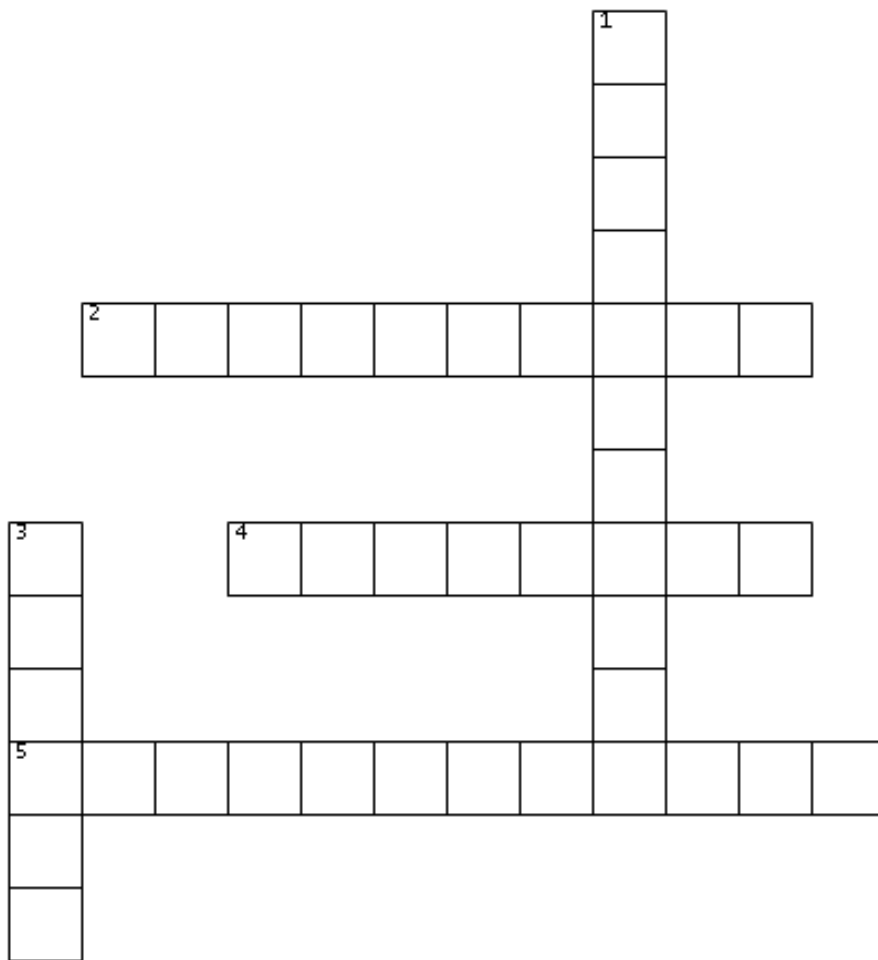
**Q7. "For the past few days I had been pleasantly besieged by the dignitaries and the world leaders who came to pay their respect before the inauguration."**  
a) Who does 'I' refer to in the above line? (1)  
b) What was the occasion? (1)

**Q8. How did the postmaster react when he saw Lencho's letter? (1.5)**

**Q9. What is 'apartheid'? What did Nelson Mandela promise the people of South Africa in his inaugural speech? (2)**

**Q10.** Solve this interesting puzzle based on the lesson 'Nelson Mandela: A Long Walk to Freedom'.

**(2.5)**



**ACROSS**

- 2. Nelson Mandela's middle name
- 4. executive capital of South Africa
- 5. A place where the inauguration ceremony took place.

**DOWN**

- 1. A country where 'apartheid' was practiced till recently.
- 3. Nelson Mandela's daughter

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## **Subject- Mathematics**

- Q-1 Given that L.C.M.(91,26) =182, find H.C.F( 91,26). (1)
- Q-2 State fundamental theorem of arithmetic with an example. (1)
- Q-3 Explain why  $(17 \times 5 \times 11 \times 3 \times 2 + 2 \times 11)$  a composite number. (1)
- Q-4 Find the value of 'k' such that the polynomial  $x^2 - (k+6)x + 2(2k-1)$  has sum of its zeroes equal to half of their product. (1)
- Q-5 The decimal expansion of the rational number  $43/2453$  will terminate after how many places of decimals? (1)
- Q-6 If two positive integers are expressed in the form of  $a=pq^2$  and  $b= p^3q$  where a and b being prime numbers, then find the H.C.F (a,b). (2)
- Q-7 Find the greatest number that will be divisible by 445,572 and 699 leaves a remainder 4,5,6 respectively. (2)
- Q-8 Without actually performing the long division, find the decimal expansions of the following numbers: (2)
- (i)  $987/10500$  (ii)  $12/1250$  (iii)  $17/3125$ .
- Q-9 Show that only one of the numbers n, n+2 and n+4 is divisible by 3 . (2)
- Q-10 Find the zeroes of the polynomial  $x^2-4x+3$ . (2)
- Q- 11. Prove that  $\sqrt{5} + 2$  is an irrational number. (2)
- Q- 12. Three bells toll at intervals of 9, 12, 15 minutes respectively. If they start tolling together, after what time will they next toll together? (2)
- Q-13 Two tankers contain 850 liters and 680 liters of petrol. Find the maximum capacity of a container which can measure the petrol of each tanker in the exact number of times. (2)
- Q-14 Show that  $2\sqrt{2}$  is an irrational number. (2)
- Q-15 What are the possible values of remainder r, when a positive integer a is divided by 3? (2)
- Q-16 Write whether the square of any positive integer can be of the form  $3m + 2$ , where m is a natural number. Justify your answer. (3)
- Q-17. Find the value of m, if  $x + 4$  is a factor of the polynomial  $x^2 + 3x + m$ . (3)
- Q-18. Show that  $p - 1$  is a factor of  $p^{10} + p^8 + p^6 - p^4 - p^2 - 1$ . (3)
- Q-19 Using prime factorisation method, find the HCF and LCM of 30, 72 and 432. Also show that  $\text{HCF} \times \text{LCM} \neq \text{Product of the three numbers}$ . (3)
- Q-20 Prove that  $\sqrt{5}$  is irrational and hence show that  $3 + \sqrt{5}$  is also irrational . (3)



## **Subject: Science**

### **Objective:**

- Ø Revision of concepts
- Ø Application of the concepts to real life situations.
- Ø Skills to carry out research work and develop scientific aptitude

### **Instructions:**

- \*Neatly write all the answers in your science notebook.
- \*Attempt the questions keeping in mind the weightage of each question.
- \*Assignment 'Summer Holiday Homework' will be created on TEAMS. PDF of handwritten work should be uploaded on it.

### **Physics**

- Q1. How much energy is given to each coulomb of charge passing through a 10 V battery? (1)
- Q2. What is the S.I. unit of resistance? Using the unit of resistance, derive the unit for resistivity. (2)
- Q3. If the current  $I$  through a resistor is increased by 100% (assume that temperature remains unchanged), what will be the percentage change in potential difference? Justify. (2)
- Q4. A charge of 150 coulomb flows through a wire in one minute. Find the electric current flowing through it. (2)
- Q5. (a) Draw a  $V - I$  graph for a nichrome wire, where  $V$  is potential difference and  $I$  is current.
- (b) A metallic wire of 625 mm length offers a  $4\ \Omega$  resistance. If the resistivity of the metal is  $4.8 \times 10^{-7}$  ohm-metre then calculate the area of cross-section of the wire. (3)
- Q6. a) Which physical quantity can be measured using a voltmeter in an electric circuit?
- b) In a voltmeter there are 20 divisions between the '0' mark and 0.5 V mark. Calculate its least count. (3)
- Q7. A copper wire has a diameter 0.3 cm and resistivity  $1.6 \times 10^{-8}$  ohm m.
- (i) What will be the length of this wire to make the resistance of 12 Ohm
- (ii) How much will be the resistance of another copper wire of same length but half the diameter? (3)
- Q8. A wire of uniform cross-section 'A' and length 'L' has a resistance of 4 ohm. The wire is cut into four equal pieces, each piece is then stretched to twice the new length. What will be resistance of each piece? (3)
- Q9. a) A current of 10 A flows through a conductor for two minutes. Calculate the amount of charge passed through any area of cross section of the conductor.
- b) If the charge of an electron is  $1.6 \times 10^{-19}$  C, then calculate the total number of electrons flowing. (3)
- Q10. a) List the factors on which the resistivity of a conductor in the shape of a wire depends.
- b) Why are metals good conductors of electricity while glass is a bad conductor of electricity? Justify by comparing the resistivity of copper and glass. (3)

## **Chemistry**

1. The burning of natural gas is an exothermic reaction. Explain. (1)
2.  $\text{NH}_3(\text{g}) + \text{HCl}(\text{g}) \rightarrow \text{NH}_4\text{Cl}(\text{s})$ 
  - (i) State the type of chemical reaction
  - (ii) Write the name of the product formed. (1)
3. What will happen when a magnesium ribbon is brought in the gas jar of carbon dioxide? (1)
4. Define combination reactions with the help of an example. (2)
5. 'All combustion reactions are oxidation reactions'. Do you agree? Justify your answer with the help of a chemical equation. (2)
6. Explain precipitation reactions with the help of an example. (2)
7. Write down the chemical names and formulae of the following compounds- (3)
  - (i) Quicklime
  - (ii) Slaked lime
  - (iii) Limestone
8. Write a chemical equation of a reaction in which the following changes are observed- (3)
  - (i) Evolution of a gas.
  - (ii) Change in colour
  - (iii) Formation of a precipitate
9. 2g copper metal is added to the 5ml aqueous solution of silver nitrate in a beaker. (5)
  - (i) State any one observation.
  - (ii) Give reasons for the observations.
  - (iii) Write the chemical equation involved.
  - (iv) Identify the type of chemical reaction involved.
  - (v) What would have happened if gold metal was used in place of copper?
10. Translate the following statements into balanced chemical equations- (5)
  - (i) Hydrogen gas combines with oxygen gas to form water.
  - (ii) Barium chloride reacts with aluminium sulphate to give aluminium chloride and a precipitate of barium sulphate.
  - (iii) Sodium metal reacts with water to give sodium hydroxide and hydrogen gas.
  - (iv) Phosphorous burns in presence of chlorine to form phosphorous pentachloride.
  - (v) Silver bromide decomposes into silver metal and bromine gas when exposed to sunlight.

## **Biology**

1. What is peristalsis? (1)
2. Why is the inner wall of alimentary canal not digested although the digestive enzyme can digest all the materials that make cells? (2)
3. State two advantages of transpiration in plants. (2)
4. Differentiate between ingestion and egestion in human. (2)
5. Plants have low energy needs as compared to animals. Give reasons. (2)
6. Name the end products formed after the digestion of
  - a) Carbohydrate
  - b) Protein
  - c) Fat(2)

7. How is villi adapted to perform its function? (3)
8. How is the nutrition in mushroom different from that of amoeba? (3)
9. Explain the process of digestion of protein in human. (3)
10. Draw a well labelled diagram of human alimentary canal. (5)

## **Subject: Social Science**

### **Worksheet-2- History**

**20 Marks**

- Q1. Which Satyagraha movement was organised in Ahmedabad and when? 1
- Q2. Why was the Khilafat movement started? 1
- Q3. Name two main 'Satyagraha' movements organized by Mahatma Gandhi successfully in favour of peasants in 1916 and 1917. 1
- Q4. What was picket? 1
- Q5. How had the First World War created a new economic situation in India? Explain with three examples. 2
- Q6. Why did Gandhiji decide to launch a nationwide Satyagraha against the proposed Rowlatt Act 1919? 2
- Q7. Explain the reasons and effects of Jallianwala Bagh massacre. 2
- Q8. List the difference between Non-cooperation Movement and Civil Disobedience Movement. 2
- Q9. Explain any three effects of the Non-cooperation Movement on the economy of India. 3
- Q10. How had non-cooperation spread in cities? Explain. Why did it gradually slow down? 5

### **Worksheet-2- Political Science**

**20 Marks**

- Q.1 Which are the border states of Belgium? 1
- Q.2 What do you understand by Civil War? 1
- Q.3 State one special problem in Brussels. 1
- Q.4 How the composition of the capital city of Brussels is different from Belgium as a country? 2
- Q.5 What do you understand by the community government? What is its advantage? 2
- Q.6 What were the results of the policy of majoritarianism in Sri Lanka? 2
- Q.7 Apart from the central and state government, what is the other form of government in Belgium? 2
- Q.8 Why the system of 'reserved constituencies' is adopted in India? 2
- Q.9 Describe basic principles of democracy about power sharing. 2
- Q.10 What do you learn from the principles followed in Belgium and Sri Lanka i.e., majoritarianism in Sri-Lanka and accommodation in Belgium? 5

### **Worksheet-2- Economics**

**20 Marks**

- Q1. Define the term National Income? 1
- Q2. Mohit is 28 years of age, has 65 kg of body weight and is 1.4 meters tall. Calculate his BMI. Find out whether he is under nourished or over weight. Why? 1
- Q3. Which of the following statement defines Sustainable Development? 1
- A. Sustainable use of natural resources without considering the need of the future generation.
- B. Present generation fulfils its needs while considering the needs of the future generation as well.
- C. It means utilization of natural resources by the past, present and forthcoming future generation.
- D. To meets the needs of the future generations even if the needs of the present generation go unmet.

- Q4. Give some examples where factors other than income are important aspects of our lives. 2
- Q5. What is meant by National Development? Give your own opinion. 2
- Q6. Highlight any three major advantages of public facilities. 2
- Q7. Does availability of good health and educational facilities depend only on amount of money spent by the government on these facilities? What other factors could be relevant? 2
- Q8. In Tamil Nadu, 75% of the people living in rural areas use a ration shop, whereas in Jharkhand only 8% of rural people do so. Where would people be better off and why? 2
- Q9. What is development? Explain the indicators used by UNDP for measuring development. 3
- Q10. On what basis are the developmental goals determined by different people? Give one.s example to prove that development for one may cause harm to others. 4

## **Worksheet-2- Geography**

**20 Marks**

### **VERY SHORT ANSWER QUESTIONS**

- Q1) What do you, mean by land use pattern? Name the factors that determine the use of land. 2
- Q2) Which soil ideal for growing cashew nuts? Mention the region where this soil is found. 2
- Q3) Differentiate between renewable and non-renewable sources. 2
- Q4) What steps can be taken to control soil erosion in the hilly areas and windy areas? 2
- Q5) What is strip cropping? 2
- Q6) Name any two nutrients which are found in black soils? Mention the crop cultivated in this type of soil. 2
- Q7) Name the nutrient in which black soils is poor. Mention any two characteristics of this type of soil. 2
- Q8) Mention the reason due to which red soils looks red? What happens when it is hydrated? 2
- Q9) What is resource planning? From which Five-Year Plan has India made concerted efforts for achieving the goals of resource planning? 2
- Q10) Why are the lower horizons of the soil occupied by Kankar? 2

## **Subject: Information Technology**

### **Chapter -Digital Documentation (Advanced)**

#### **I Multiple Choice Questions:**

**5**

1. Which of the following menu contains an option to handle templates?  
A. File                      B. Edit                      C. View                      D. Format
2. OO Writer does not contain any template in MyTemplates category. Which of the following options can be used to get templates?  
A. Load templates from another folder  
B. Get more templates online  
C. Import templates from other apps  
D. Download Open Office Themes
3. You cannot change the styles format once it is created by you in OO Writer. (True/False)
4. The set as default template option is available under which of the following button in the template management dialog box window?  
A. Templates              B. Documents              C. File                      D. Commands
5. To open template management dialog box window click on this command of File→ Templates:  
A. Organize              B. Address Book Source              C. Save                      D. Edit

#### **II Fill in the blanks:**

**½\*10=5**

1. Press \_\_\_\_\_ short cut key to open styles and formatting window in OO writer.
2. A \_\_\_\_\_ mode is used to apply a style to many different areas quickly without having to go back to the Styles and Formatting window and double-click every time.
3. To use template click on \_\_\_\_\_ → \_\_\_\_\_ option from file menu.
4. To quit Fill Format mode, press \_\_\_\_\_ key.
5. To create a style click on \_\_\_\_\_ icon available in styles and formatting dialog box.
6. Click \_\_\_\_\_ option from styles and formatting dialog box to apply style created from another document.
7. The \_\_\_\_\_ and \_\_\_\_\_ additional toolbars can be also used to modify the images for corrections and to obtain special effects.
8. The \_\_\_\_\_ option is particularly useful when creating a watermark or when the image in background.

#### **III Answer the following:**

- |  |   |
|--|---|
| a) Write steps to draw shapes in OO Writer.                  | 2 |
| b) Write steps to update/modify style set.                   | 2 |
| c) How to add or delete background to the table of contents? | 2 |
| d) How to insert images through clipart in OO Writer?        | 2 |
| e) What is the pre-requisite of the table of contents?       | 2 |
| f) Explain the entries tab in detail.                        | 3 |

**IV Practical Work: Perform the following practicals on OpenOffice Writer and mention the steps with screenshots in a word document.**

**1) Objective: Creating templates in OpenOffice Writer.**

**3**

Task: Create a document that looks like a screenshot and save as a template.



**Follow the instructions given below:**

Instructions:

- Apply page borders as displayed in the screenshot. Apply border colour as per your choice.
- Page orientation must be landscape.
- Give your desired formatting for the text written in the certificate.
- Save your file as a template and give the name certificate template.

**OR**

**Create a Snapshot Calendar (template)**

**2) Objective: Creating Table of Contents in OpenOffice Writer.**

**4**

Task: Create a table of contents on the theme: **Simulation Software**