

St. Mary's School, Dwarka
Holiday Homework
Class X
Week 1
Worksheet 1

Subject- English

Q1. Read the passage given below.

1. The color of animals is by no means a matter of chance; it depends on many considerations, but in the majority of cases tends to protect the animal from danger by rendering it less noticeable.
2. Perhaps it may be said that if coloring is mainly protective, there ought to be but few brightly coloured animals. There are, however, not a few cases in which vivid colors are themselves protective. The kingfisher itself, though so brightly colored, is by no means easy to see. The blue matches with the water and the bird as it darts along the stream looks almost like a flash of sunlight.
3. Desert animals have generally the color of the desert. Thus, for instance, the lion, the antelope, and the wild donkey are all sand-colored. "Indeed," says Canon Tristram, "in the desert, where neither trees, brushwood, nor even undulation of the surface afford the slightest protection to its foes, a modification of colour assimilated to that of the surrounding country is absolutely necessary. Hence, without exception, the upper feather of every bird, and also the fur of all the smaller mammals and the skin of all the snakes and lizards, is of one uniform sand colour."
4. The next point is the colour of the mature caterpillars, some of which are brown. This probably makes the caterpillar even more conspicuous among the green leaves than would otherwise be the case. Let us see, then, whether the habits of the insect will throw any light upon the riddle.
5. What would you do if you were a big caterpillar? Like most other defenseless creatures, you would feed by night, and lie concealed by day. So do these caterpillars. When the morning light comes, they creep down the stem of the food plant, and lie concealed among the thick herbage and dry sticks and leaves, near the ground, and it is obvious that under such circumstances the brown colour really becomes a protection.
6. It might indeed be argued that the caterpillars, having become brown, concealed themselves on the ground and that we were reversing the state of things. But this is not so, because, while we may say as a general rule that large caterpillars feed by night and lie concealed by day, it is by no means always the case that they are brown; some of them still retain the green colour. We may then conclude that the habit of concealing themselves by day came first, and that the brown colour is a later adaptation.

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

(1/2x10=5)

i. What is the main idea of this passage?

- a) Animals inherit their colouration from their parents and pass on the same genes to their offspring.
- b) The colour of an animal is not coincidental, but is an adaptation developed over time to aid its survival.
- c) The colouring of animals changes widely over time and in different parts of the world.
- d) The coloring of mature caterpillars is very difficult to explain without considering the behavior patterns they exhibit.

ii. Which of the following will be the most appropriate title for the passage?

- a) The Desert Animals
- b) The Colour of Animals
- c) The Colour of Caterpillars
- d) The Story of Kingfisher's Colour

iii. In the context of how it is used in the passage, the word 'conspicuous' means

- a) annoying
- b) noticeable
- c) dreadful
- d) difficult to see

iv. Which of the following word can be used to replace the word 'modification' in paragraph 3?

- a) fixation
- b) vibration
- c) moderation
- d) alteration

v. The example of the mature caterpillar is primarily intended to demonstrate

- a) how caterpillars have developed their specific coloring
- b) the extreme variability of colour patterns among insects
- c) the difficulty of explaining the reason behind specific colour patterns in animals
- d) how genetic adaptation follows and helps behavioral patterns

vi. Why is it particularly important for desert animals to match their colouration to the colour of the desert?

- a) the predators in the desert are especially quick and deadly
- b) the color tones of the desert are particularly suited to swift evolutionary adaptation
- c) the barren, sparse environment of the desert ensures a lack of natural protection and cover
- d) food and water are especially scarce in the desert

vii. Which of the following words represents the action of caterpillars as mentioned in the following sentence?

"When the morning light comes, they creep down the stem of the food plant, and lie concealed among the thick herbage and dry sticks and leaves, near the ground, and it is obvious that under such circumstances the brown color really becomes a protection."

- a) occupation
- b) camouflage
- c) mimicking
- d) evolution

viii. The example of the kingfisher in the second paragraph is intended to prove that the color of an animal is _____.

- a) always adapted to match the background color of its environment
- b) is not always adapted to match the background color of its environment
- c) an extraneous detail, evolutionarily speaking
- d) statistically speaking, most likely to be adapted to match the background color of its environment

ix According to the passage when does a defenseless creature go in search of food?

- a) during day
- b) during night
- c) whenever it is out of its living area
- d) only during bright days

x. Which of the following is the opposite of the word ‘conceal’?

- a) revival
- b) reveal
- c) revive
- d) revert

xi. Which of the following is NOT synonymous in meaning to ‘danger’?

- a) peril
- b) hazard
- c) risk
- d) freedom

xii. What is the tone of the above passage?

- a) sarcastic
- b) authoritative
- c) ironic
- d) humorous

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

(1/2x5=2.5)

Some say the world will end in fire,
Some say in ice.
From what I’ve tasted of desire
I hold with those who favor fire.

But if it had to perish twice,
I think I know enough of hate
To say that for destruction ice
Is also great
And would suffice.

i. Who does 'some' refer to in the poem?

- a. debators
- b. people
- c. politicians
- d. poets

ii. What does the poet compare fire with?

- a. extreme hatred
- b. heat of desire
- c. heat of the moment
- d. end of the world

iii. The rhyme scheme of the first stanza is.....

- a. ab aa
- b. ab ab
- c. ab bb
- d. ab cd

iv. What does the word 'ice' symbolize?

- a. love for money
- b. lust for power
- c. heat of desire
- d. coldness of hate

v. Which word in the poem means 'die'?

- a. desire
- b. perish
- c. favour
- d. suffice

Q3. Fill in the blanks by choosing the correct options given below.

(1/2x4=2)

i. I the Taj Mahal last month.

- a. had visited
- b. was visited
- c. visited
- d. have visited

ii. Everyone so worried about the results.

- a. has
- b. are
- c. was
- d. were

iii. I always enjoycream and sugar in my coffee.

- a. little
- b. a little
- c. less
- d. few

iv. Nagarjuna Sagar Dam is masonry dam across Krishna River.

- a. an, an
- b. the , a
- c. a, a
- d. a, the

Q4. Read the following conversation and complete the paragraph given below. (1/2x4=2)

Preeti : Where did you spend your holidays?

Naman : I went to many hills stations. ‘

Preeti : Which one did you like the most?

Naman : Honestly speaking. I liked all as I am very fond of hills.

Preeti asked Naman(i) _____. Naman replied,(ii)_____. Preeti then asked him (iii) _____. Naman said that (iv)_____.

Q5. Choose the most appropriate word from the bracket to fill in the blanks:- (1/2x5=2.5)

- i. She told me that she was unwell so she.....not go to office.(could/can)
- ii. The visitorsnot carry eatables with them in the hotel.(should/would)
- iii. As he is in dire need of money, we.....help him immediately.(ought to/should)
- iv.you please lend me your book for a week? (Could/May)
- v. His son is not so brilliant in his studies but he.....pass the examination.(could not/ cannot)

Q6. You are Aman/Asha Dubey residing at 24, Submarine Enclave, Halley’s Road, Mumbai. Write a letter to the Editor of a newspaper complaining about improper garbage disposal in your locality since last two months in 120 to 150 words. (3)

Q7. Answer the following questions in 20 to 30 words.

- (i)Why did Lencho say the raindrops were like new coins? (1)
- (ii)Why did Lench write a letter to God? (1)

Q8. Answer the following question in 40 to 30 words. (1.5)

What message does the poet want to convey through the poem ‘The Dust of Snow’.

Q9. Briefly write the ideas about how the world will come to an end as discussed in the poem ‘Fire and Ice’.

(2)

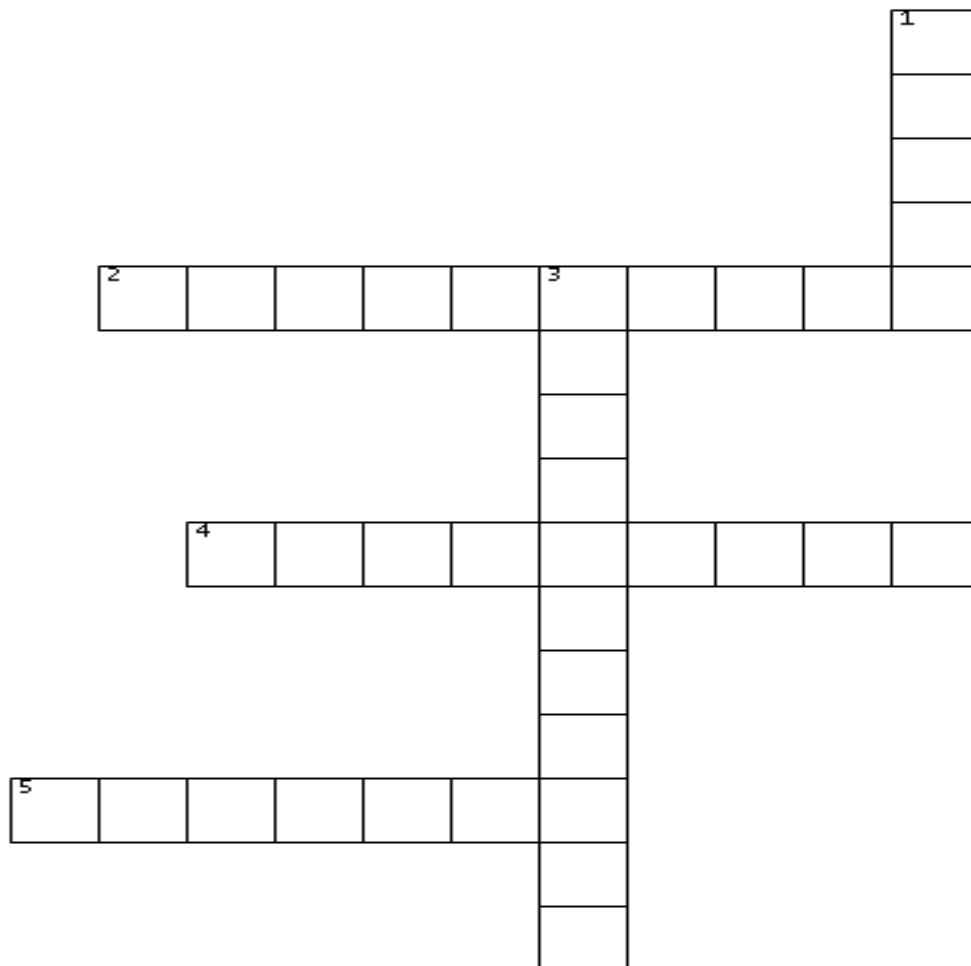
Q10. Solve the given puzzle based on the characters of the lesson ‘The Letter to God’. (2.5)

ACROSS

- 2. post office employees (donate generously to help Lencho)
- 4. Lencho's wife (strong faith in God)
- 5. Postmaster (friendly)

DOWN

- 1. Lencho (immature)
- 3. Postman (laughs when he sees the letter)



Project

Read the poem '**A Tiger in the Zoo**' and analyse it using the **SWIFT** technique.

S: Structure -How is the poem organised? Are there rhyme lines or sound words?

W: Word choice- What specific words does the poet use to elicit emotions? To what effect?

I: Imagery- What images does the poet paint with words?

F: Figurative language- How does the figurative language affect/enhance the poem?

T: Theme and tone- What is the poet's message? (One complete sentence that appeals universally to life) What is the poet's attitude?

Make a video collage of the poem using related pictures depicting the theme of the poem using 'Canva' or any other app that you may find useful.

Subject - Hindi

निर्देश- 1 दिए गए सभी प्रश्नों के उत्तर हिंदी की उत्तर - पुस्तिका में लिखिए।

2 कार्य स्वच्छ , शुद्ध एवं स्पष्ट लेख में कीजिए।

M.M. 25

प्रश्न 1 निम्नलिखित गद्यांश को पढ़कर प्रश्नों के उत्तर दीजिए :

(7)

तथागत ने अपने सभी शिष्यों को सद्वर्तन की शिक्षा दी। उनसे कहा — अब तुम सुख-दुख के बंधनों से मुक्त हो गए हो। तुम सब अलग-अलग दिशाओं का भ्रमण करो। दीन दुखियों की सेवा करो। उन्हें भी दुख से मुक्त करो। मैं जन जन का कल्याण चाहता हूँ। आप सब इसमें मेरे सहायक बनी। मैं भी अब इस स्थान को छोड़कर अन्यत्र जाऊँगा। उरुवेला में तीन काश्यप बंधु रहते थे। बुद्ध ने सुन रखा था कि वे पवित्र अग्नि की पूजा करते थे। उरुवेला के निवासी उनके ज्ञान और पूजा विधि में विशेष दक्षता के कारण उनका बहुत आदर करते थे। उन्हें कुछ बोध देना असंभव था। परंतु बुद्ध ने काश्यप बंधुओं के बड़े भाई से मिलने की ठान ली। पूरे समुदाय पर उसका बहुत प्रभाव था। काश्यप गृह पहुँचने पर बुद्ध ने बड़े भाई से प्रार्थना की कि वे उन्हें अपने घर में ठहरने का स्थान देने की कृपा करें। काश्यप ने बुद्ध के तेजोमय, शांत मुख की ओर देखा उनके मुख पर अनोखा तेज और शांति विराजमान थी। काश्यप ने अपनी आत्मिक शक्तियों से अधिक दिव्य शक्ति और ज्ञान रखने वाले तथागत का शिष्यत्व स्वीकार किया। बुद्ध ने काश्यप को समझाया...द्वेष कुविचार है और जब तक आपके मन में कुविचार है तब तक तुम्हें बोध प्राप्त नहीं हो सकता। ऐसे विचारों को त्यागकर मन में सबके प्रति सुविचार रखो वही कल्याण का मार्ग है। काश्यप के मन परिवर्तन के बाद काश्यप के सभी शिष्य और उसके दोनों भाईयों ने भी बौद्ध धर्म को अपनाकर समझ लिया कि निर्वाण प्राप्ति के लिए लालसा, क्रोध, ईर्ष्या और अज्ञान का त्याग करना होगा। ये ही सब दुखों के मूल कारण हैं। बुद्ध के ज्ञानपूर्ण उपदेश और शांत वचनों को सुनकर सबको अतिशय आनंद मिला।

(क) तथागत ने अपनी शिक्षाओं द्वारा अपने शिष्यों को क्या समझाने का प्रयत्न किया?

(ख) महात्मा बुद्ध काश्यप बंधुओं के बड़े भाई से मिलने क्यों गए ?

(ग) महात्मा बुद्ध ने काश्यप बंधुओं के बड़े भाई से क्या प्रार्थना की ?

(घ) काश्यप के मन परिवर्तन का क्या परिणाम हुआ ?

(ङ) बुद्ध के अनुसार कल्याण का मार्ग क्या है ?

(च) 'अतिशय' और 'दक्षता' शब्दों के अर्थ लिखिए।

(छ) 'गृह' शब्द के दो पर्यायवाची शब्द लिखिए।

भारत भूमि के लिए प्रकृति ने मानो अपनी संपूर्ण संपदा शक्ति और सौंदर्य निछावर कर दिया। उत्तर में हजारों मील की लंबाई वाला और दुनिया में सबसे ऊँची चोटी वाला हिमालय फैला है। वह पूरे देश को न केवल ठंडी हवाओं से बचाता है बल्कि सजग प्रहरी के रूप में देश की चौकसी भी करता है। उससे गंगा, यमुना, सतलुज, ब्रह्मपुत्र जैसी सालभर बहने वाली नदियाँ निकलती हैं। उसकी घाटियाँ हरे भरे वनों से ढकी हैं। वह बंगाल की खाड़ी से उठे मानसून को रोककर वर्षा कराता है। उसकी चोटियों पर शिमला, मसूरी, नैनीताल, अलमोड़ा, दार्जिलिंग आदि हिल स्टेशन देश विदेश के सैलानियों को आकृष्ट करते हैं। कश्मीर को तो धरती का स्वर्ग कहा जाता है। दक्षिण, पश्चिम और पूरब में यह समुद्र से घिरा है। अरब सागर हिंद महासागर और बंगाल की खाड़ी का अनंत सौंदर्य इसे प्रकृति ने मानो उपहारस्वरूप प्रदान किया है। गंगा यमुना का मैदान संसार के इन गिने उपजाऊ मैदानों में से एक है। पूर्वी घाट और पश्चिमी घाट जैसे भारत भूमि और समुद्र के बीच दीवार की भाँति खड़े हैं। विंध्याचल और दक्षिण के पठार की अपनी सुंदरता है। नर्मदा, ताप्ती, कावेरी आदि नदियों की छटा अलग ही है। ऐसी अकूत संपदा का स्वामी है भारत। यदि उसका विवेकपूर्वक उपयोग किया जाए तो भारत आज भी 'सोने की चिड़िया' कहला सकता है। भारत गहन ज्ञान गरिमा से पूर्ण है। संसार के प्राचीनतम ग्रंथ वेदों की जन्मस्थली है। जीवन और जगत की गहन और सूक्ष्म समस्याओं पर विचार करने वाले उपनिषदों की रचना यहीं हुई। मानव मूल्यों को महत्त्व देने और प्रतिष्ठित करने वाले प्रसिद्ध महाकाव्य रामायण और महाभारत की रचना यहीं हुई। वाल्मीकि, व्यास, कालिदास, तुलसीदास और कबीर इसी जन्मभूमि में पैदा हुए। महाभारत के विषय में कहा जाता है कि महाभारत में सब कुछ है और जो नहीं है, वह कहीं नहीं है। ज्ञान-विज्ञान के अन्य क्षेत्रों में भी भारत विश्व का पथ प्रदर्शक रहा है। चरक, सुश्रुत, वराहमिहिर, आर्यभट्ट, पतंजली, पाणिनि, कौटिल्य आदि विद्वानों ने चिकित्सा, गणित, योग, ज्योतिष, व्याकरण, राजनीति, अर्थशास्त्र जैसे विषयों में संसार में अग्रणी भूमिका निभाई है।

(क) भारत किस संपदा का स्वामी है तथा क्या करने पर वह आज भी 'सोने की चिड़िया' कहला सकता है?

(ख) सिद्ध कीजिए कि ज्ञान विज्ञान के क्षेत्र में भारत विश्व का पथ प्रदर्शक रहा है।

(ग) लेखक ने हिमालय की किन दो विशेषताओं का उल्लेख किया है ?

(घ) कौन कौन से महापुरुषों ने इस पावन भूमि पर जन्म लिया ?

(ङ) चरक, सुश्रुत, वराहमिहिर, आर्यभट्ट, पतंजली, पाणिनि, कौटिल्य आदि विद्वानों ने किन विषयों में अग्रणी भूमिका निभाई है।

(च) 'पथ प्रदर्शक' शब्द का अर्थ लिखिए।

(छ) 'सैलानियों' शब्द में से मूल शब्द व प्रत्यय अलग कीजिए।

प्रश्न 3 पठित दोहों को पढ़कर पूछे गए प्रश्नों के उत्तर दीजिए -

(6)

बिरह भुवंगम तन बसै मंत्र न लागै कोई ।
राम बियोगी ना जिवै जिवै तो बौरा होई ।।
निंदक नेड़ा राखिये आँगणि कुटी बँधाई ।
बिन साबण पाँणी बिना निरमल करै सुभाई ।।
जब मैं था तब हरि नहि अब हरि हैं मैं नाहि
सब अंधियारा मिटि गया जब दीपक देख्या माहि ।।

- (क) कवि व कविता का नाम लिखिए ।
- (ख) राम बियोगी की क्या दशा होती है ?
- (ग) कवि निंदक को कहाँ रखने की सलाह देते हैं ?
- (घ) निंदक हमारे लिए क्या करता है ?
- (ङ) कवि के अनुसार यहाँ 'मैं' का क्या अर्थ है?
- (च) कवि के अनुसार सारा अज्ञान का अंधकार कैसे मिट गया ?

प्रश्न 4 पठित गद्यांश को पढ़कर पूछे गए प्रश्नों के उत्तर दीजिए -

(5)

मेरा जी पढ़ने में बिल्कुल न लगता था। एक घंटा भी किताब लेकर बैठना पहाड़ था। मौका पाते ही होस्टल से निकलकर मैदान में आ जाता और कभी कंकरियाँ उछालता कभी कागज़ की तितलियाँ उड़ाता और कहीं कोई साथी मिल गया तो पूछना ही क्या। कभी चारदीवारी पर चढ़कर नीचे कूद रहे हैं। कभी फ़ाटक पर सवार उसे आगे पीछे चलाते हुए मोटरकार का आनंद उठा रहे हैं। लेकिन कमरे में आते ही बड़े भाईसाहब का वह रूद्र रूप देखकर प्राण सूख जाते। उनका पहला सवाल यह होता...कहाँ थे ?

- (क) पाठ व लेखक का नाम लिखिए ।
- (ख) छोटे भाई का मन पढ़ने में क्यों न लगता था ?
- (ग) लेखक को किन कामों में आनंद आता था ?
- (घ) बड़े भाईसाहब को अपने छोटे भाई पर क्रोध क्यों आता था ?
- (ङ) 'प्राण सूख जाना' मुहावरे का वाक्य में प्रयोग कीजिए ।

Subject: Mathematics

- Q-1 By using Euclid's algorithm, find the largest number which divides 650 and 1170. (1)
- Q-2 Explain whether the number $3 \times 5 \times 13 \times 46 + 23$ is a prime number or a composite number. (1)
- Q-3 If HCF of 144 and 180 is expressed in the form $13m - 3$, find the value of m . (1)
- Q-4 Find the value of the polynomial $5x - 4x^2 + 3$ at $x = 2$ and $x = -1$ (1)
- Q-5 Determine the values of p and q so that the prime factorisation of 2520 is expressible as .
 $2^3 \times y \times q \times 7$. (1)
- Q-6 Express the number 0.3178 In the form of rational number a/b . (2)
- Q-7 The LCM of two numbers is 14 times their HCF. The sum of LCM and HCF is 600. If one number is 280, then find the other number. (2)
- Q-8 The decimal expansions of some real numbers are given below. In each case, decide whether they are rational or not. If they are rational, write it in the form p/q . What can you say about the prime factors of q ? (2)
- (i) 0.140140014000140000... (ii) $0.16\overline{6}$
- Q-9. Show that 9^n can not end with digit 0 for any natural number n (2)
- Q-10 Prove that $\sqrt{2}$ is irrational. (2)
- Q-11 Express each number as a product of its prime factors: (2)
- (i) 3825 (ii) 5005
- Q-12 Given that $\text{HCF}(306, 657) = 9$, find $\text{LCM}(306, 657)$. (2)
- Q-13 The following real numbers have decimal expansions as given below. In each case, decide whether they are rational or not. If they are rational, and of the form, p/q what can you say about the prime factors of q ? (2)
- (i) 43.123456789
(ii) 0.120120012000120000
- Q-14 Check whether 6^n can end with the digit 0 for any natural number n . (2)
- Q-15. Find HCF and LCM of 13 and 17 by prime factorisation method. (2)
- Q-16. Prove that $2 + 3\sqrt{5}$ is an irrational number. (3)
- Q-17 Show that the square of any positive odd integer is of the form $8m + 1$, for some integer m . (3)
- Q-18. Find the remainder when $x^3 + x^2 + x + 1$ is divided by $x - 12$ using remainder theorem. (3)
- Q-19 Prove that $2\sqrt{3} - 1$ is an irrational number. (3)
- Q-20 Prove that the product of any three consecutive positive integers is divisible by 6. (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.

Research Project

"India is the world's third largest producer and third largest consumer of electricity.
The national electric grid in India has an installed capacity of 382.15 GW."

Prepare a report on the following:

1.
 - a) Energy conversion taking place at any BSES power generation plant.
 - b) The load sanctioned for your house. (Refer to your electricity bill or use websites for load calculation). How is it different from the load sanctioned for commercial purposes (Example: factories, showrooms etc.)?
 - c) 'BSES Rajdhani Power Limited Solar City Initiative'.
2. The metallurgical processes involved in the extraction of the metal, which is used to make electrical cables. Organize the information collected under the following sub headings-
 - i) Definition and significance of metallurgy.
 - ii) Name and formulae of the ores of the metal.
 - iii) Specific processes and chemical reactions involved for extraction of the metal with neat and labelled diagrams.
3. BSES power generation plant impacts the environment in many ways. Find out about the various pollutants and organise the information collected under the following sub headings-
 - i) Types of emissions (Solids, Liquids and gaseous)
 - ii) Effect of these emissions on human health
 - iii) Preventive measures taken
 - a) by the Government
 - b) by the local people.

Worksheet 1 -PHYSICS

Q1. Name the instrument which measures i) current ii) potential difference in the circuit.

Also mention the unit in which these instruments are calibrated. (2)

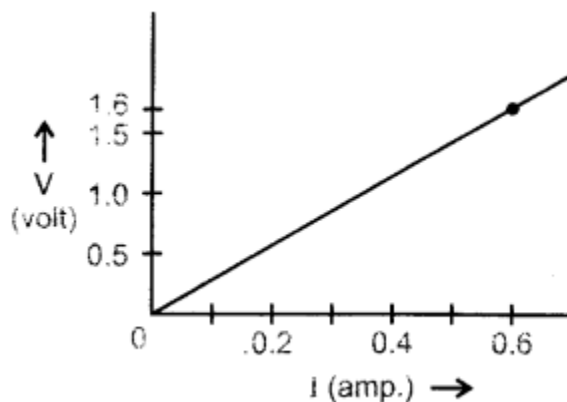
Q2. Calculate the current in a wire if 1500 C of charge is passed through it in 5 minutes. (2)

Q3. A steady current of 5 amperes flows through a circuit for 30 minutes. How much charge has circulated through the circuit in this time? (2)

Q4. Calculate the number of electrons constituting one coulomb of charge. (2)

Q5. The resistance of an electric iron is $48\ \Omega$ and an electric current of 5 A flows through it.
What will be the potential difference between two terminals of the electric iron? (2)

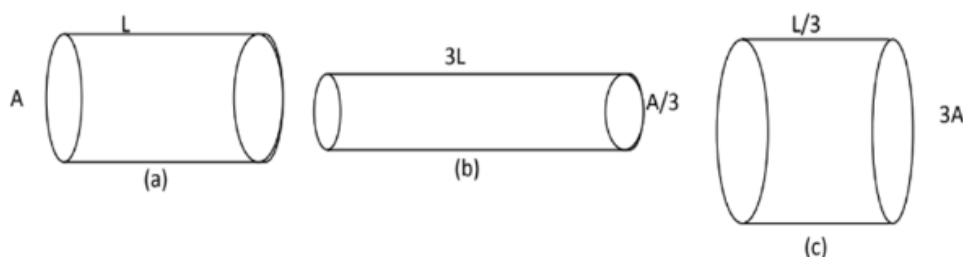
Q6. Following graph was plotted between potential difference and current.



What would be the values of V/I ratios when the potential difference is 0.5 V , 1.0 V and 1.6 V respectively? What conclusion do you draw from these values? (3)

Q7. A wire of length ' L ' and area of cross section ' A ' is stretched to twice its length. What will be the new resistance and resistivity of the wire? (3)

Q8. The figure below shows three cylindrical copper conductors along with their area of cross sections and lengths. Compare the resistance and the resistivity of the three conductors. Justify your answer. (3)



Q9. How does the resistance of a wire change when

- a) its length is tripled?
- b) its diameter is tripled? (3)

Q10. A copper wire has diameter 0.5 mm and resistivity of $1.6 \times 10^{-8}\ \Omega\text{m}$, what be the length of this wire to make its resistance $10\ \Omega$? (3)

Worksheet 1 -CHEMISTRY

1. What happens when aqueous solution of potassium iodide is added to the aqueous solution of lead nitrate? (with chemical equation) (1)
2. Differentiate between exothermic reactions and endothermic reactions with one example of each. (2)
3. A zinc plate was put in the solution of copper sulphate kept in a glass container. It was found that blue colour of copper sulphate solution fades with time. After few days when zinc metal was taken out of the solution, a number of holes were observed on it.
 - (i) State the reason for changes observed on the zinc plate.
 - (ii) Write the chemical equation for the reaction involved. (2)
4. Write any four observations that help us to determine whether a chemical reaction has taken place. (2)
5. Differentiate between single displacement reaction and double displacement reactions with one example each. (2)
6. Write any two observations when lead nitrate crystals are strongly heated. Also give reasons for the observations. (2)
7. Identify the type/types of chemical reactions in each of the following- (3)
 - i. Iron (III) oxide reacts with aluminium and gives molten iron and aluminium oxide.
 - ii. Magnesium ribbon is burnt in an atmosphere of nitrogen to form solid magnesium nitride.
 - iii. Conversion of vegetable matter into compost.
 - iv. Quick lime and water are mixed.
 - v. Limestone is heated.
 - vi. Barium hydroxide is mixed with ammonium chloride.
8. The green-coloured crystals on heating strongly, produce a mixture of gases with the characteristic odour of burning sulphur and a brown residue is left behind in the (3) boiling tube.
 - (i) Write the names of the reactant and products.
 - (ii) Give the relevant chemical equation.
 - (iii) Identify the type of chemical reaction involved.
9. Explain the following with one chemical equation each- (3)
 - (i) Black and white photography
 - (ii) Whitewashing of walls
 - (iii) Respiration

10. Write balanced chemical equations for the following chemical reactions and write the names of the products in each case: (5)

- (a) When electric current is passed through water.
- (b) When iron nail is placed in copper sulphate solution.
- (c) When aqueous solution of sodium sulphate is mixed with barium chloride solution.
- (d) Methane is burnt in air to form carbon dioxide, water and heat.
- (e) Carbon monoxide gas reacts with hydrogen gas at 340 atmospheres.

Worksheet 1 -BIOLOGY

- 1. How is the the inner wall of stomach protected from the acid present in it? (1)
- 2. What is the role of bile in the digestion of food? (2)
- 3. Explain the mechanism of photosynthesis. (2)
- 4. How does a leaf adapt to play an effective role in the process of photosynthesis? (2)
- 5. In certain plants, stomata remain closed during the day. How is food synthesized by such plants? (2)
- 6. How does diffusion help in performing several life processes in single celled organisms? (2)
- 7. Explain with the help of diagram how amoeba takes its nutrition. (3)
- 8. Differentiate between saprophytic, parasitic and holozoic mode of nutrition. (3)
- 9. Differentiate between intracellular and extracellular digestion. Explain with the help of examples. (3)
- 10. How do guard cells regulate the opening and closing of stomata? Explain with the help of a labeled diagram. (5)

Subject: Social Science

Worksheet 1 -Political Science

M.M: -20

- Q.1 Why power sharing in desirable? 2
- Q.2 Do you think that 'Democracy is the best way to fight for recognition and also to accommodate diversity'? 2
- Q.3 Why is it very difficult to make changes to the power sharing arrangement between the Union Government and State Governments? Explain with examples. 2
- Q.4 Explain how power is shared among different organs of government. 2
- Q.5 Describe any three demands of the Sri Lankan Tamils. How did they struggle for their demands? 2
- Q.6 What is Majoritarianism? How has it increase the feelings of alienation among Sri Lankan Tamils? Explain with examples. 5
- Q.7 How have Belgium and Sri Lanka dealt with the question of power sharing differently? 2
- Q.8 Why is the ethnic composition of Belgium very complex? 1
- Q.9 Differentiate horizontal and vertical power sharing in modern democracies. 1
- Q.10 Which language is spoken by the majority of population in Brussels, the capital city of Belgium? 1

Worksheet 1- Geography

M.M: -20

- Q.1 Materials in the environment which have the potential to satisfy human needs, but human beings do not have appropriate technology to access them are called: 1
- (a) Potential resource
- (b) Stock
- (c) Developed resource
- (d) Reserves.
- Q.2 "Land is a resource of utmost importance". Justify the statement. 1
- Q.3 What do you understand by the term Resource? 1
- Q.4 What was the objective of Rio de Janeiro Earth summit 1992? 1
- Q.5 Mention the states where overgrazing and overirrigation are responsible for degradation. (one under each category). $\frac{1}{2} \times \frac{1}{2} = 1$
- Q.6 Mention the variety of relief features in India with reference to percentage and uses. 1
- Q.7 Differentiate between potential resource and developed resource. 2

- Q.8 What are ravines? Mention methods of soil prevention in hilly area. 2
- Q.9 Name the most widely spread and important soil of India and its region of occurrence. Write any three characteristics of this type of soils. 1+1+3= 5
- Q.10 What do you understand by the term planning? Explain three stages of resource planning in India. 5

Worksheet 1- Economics

M.M: - 20

- Q1. Development of a country can generally be determined by (1)
- (a) its per capita income
- (b) its average literacy level
- (c) health status of its people
- (d) all the above
- Q2. Explain the Human Development Report. (2)
- Q3. What is the main criterion used by the World Bank in classifying different countries? (2)
- What are the limitations of this criterion, if any? (2)
- Q4. Define the Organised Sector and explain the working conditions. (2)
- Q5. Why do you think MGNREGA 2005 is referred to as 'Right to work'? (2)
- Q6. Explain the difference between primary, secondary and tertiary sectors using examples. (2)
- Q7. What do you understand by disguised unemployment? Explain with an example each from the urban and rural areas. (2)
- Q8. Distinguish between open unemployment and disguised unemployment. (2)
- Q9. Why do we use averages? Are there any limitations to their use? Illustrate with your own examples related to development. (2)
- Q10. State a reason why intermediate goods are not considered in the value of final goods. (3)

Worksheet 1- History

M.M: -20

- Q1. Who was the writer of the book 'Hind Swaraj'? 1
- (a) Rabindranath Tagore (b) B.R. Ambedkar
- (c) Mahatma Gandhi (d) Jawahar Lai Nehru
- Q2. Khilafat Committee was formed in 1919 in the city of 1
- (a) Bombay (b) Calcutta
- (c) Lucknow (d) Amritsar
- Q3. What does satyagraha mean? Choose one from the following options. 1

- (a) 'Satyagraha' means use of physical force to inflict pain while fighting.
- (b) 'Satyagraha' does not inflict pain, it is a non-violent method of fighting against oppression.
- (c) 'Satyagraha' means passive resistance and is a weapon of the weak.
- (d) 'Satyagraha' was a racist method of mass agitation.

Q4. What was the purpose of imposing the Rowlatt Act? 1

- (a) The Rowlatt Act forbade the Indians to qualify for administrative services.
- (b) The Rowlatt Act had denied Indians the right to political participation.
- (c) The Rowlatt Act imposed additional taxes on Indians who were already groaning under the burden of taxes.
- (d) The Rowlatt Act authorised the government to imprison any person without trial and conviction in a court of law

Q5. Identify the two leaders who led the Khilafat Movement. 1

- (a) Gandhiji and Sardar Patel
- (b) Abul Kalam Azad and Jawaharlal Nehru
- (c) Muhammad Ali Jinnah and Abul Kalam Azad
- (d) Shaukat Ali and Muhammad Ali

Q6. In which of the following places Mahatma Gandhi organised satyagraha for the first time in India?

1

- (a) Dandi
- (b) Ahmedabad
- (c) Kheda
- (d) Champaran

Q7. Explain the idea of Satyagraha according to Gandhiji. 3

Q8. Explain the reaction of Indian people against the Rowlatt Act passed through the Imperial Legislative Council in 1919. 3

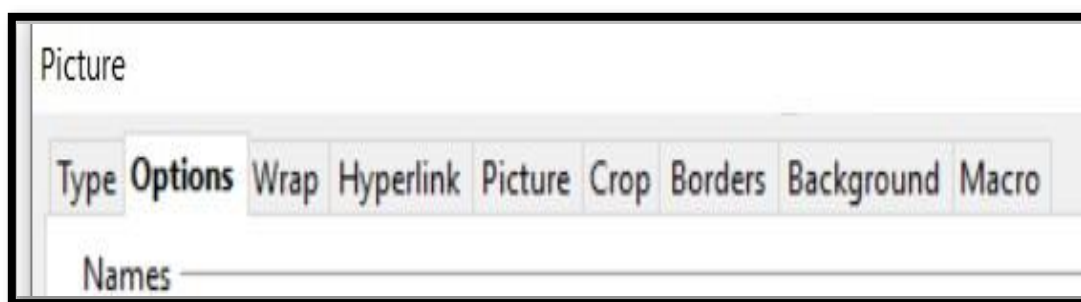
Q9. Explain any three facts about the new economic situation created in India by the First World War. 3

Q10. Explain the impact of Jallianwala Bagh incident on the people. 5

Subject: Information Technology

Chapter -Digital Documentation (Advanced)

- Q1 A _____ is used to apply a group of formatting effects together to the text, paragraph or a heading.
a) Labels b) Mail merge C) Style d) both b and c 1
- Q2 A Template can be created in Writer by saving a document with _____ extension.
a) .odt b). ott c).dbm d) .ods 1
- Q3 The _____ button represents the start of a hyperlink that doesn't appear on the default Structure line.
a) LE b) LS c) # d) T 1
- Q4 How can you know the name of the style of current paragraph? 1
a) through the status bar
b) through the style box
c) through the find box
d) through the standard toolbar
- Q5 Once we have created the Table of Contents, we have to ensure that it must be maintained. What does it mean? 1
a) Define hierarchy of headings
b) Creating Index/table
c) Update Index/Table
d) Defined random headings
- Q6 Write the benefit of creating TOC in any document. What is the mandatory point one has to keep in mind for successful creation of TOC in Writer? 1+1=2
- Q7 What are style categories? List few popular style categories. 1+2=3
- Q8 Define a template. How to create a new template in OpenOffice Writer? 1+2=3
- Q9 Explain the purpose of any four tabs which appear when you double click the inserted picture in OO Writer. 1x4=4



Q10

PRACTICAL WORK:

Perform the following practicals on OpenOffice Writer and mention the steps with screenshots in a word document.

1) Objective: Create & Update a new style from the selection in the Style gallery and apply them in the document.

Task: Create new styles in OpenOffice Writer with the following specifications and apply them in a document.

Style Name: IT Content

Style specifications:

Fonts: Name – Rockwell, Size – 20 pt, Bold

Font Effects: Font Colour – Blue, Single Underline, Shadow

Or

Style Name: Cyber Crime

Style specifications:

Fonts: Name – Rockwell, Size – 20 pt, Bold

Font Effects: Font Colour – Blue, Single Underline, Shadow

2) Objective: Wrapping text with images

Task: Write 12 to 15 lines about Virtual Reality and use a few pictures to display the wrap text feature.

Or

Task: Create a poster on ‘Global Warming’ including all the appropriate drawing objects and images.