## St. Mary's School, Dwarka <br> Holiday Homework <br> Std. $X$ <br> Week 3 <br> Worksheet 3

## Subject: English

## Q1. Read the following passage.

1. The colour of animals is by no means a matter of chance; instead, it is determined by numerous factors. Its primary purpose is to provide protection against potential dangers in most of the cases.
2. There are numerous instances where vibrant colours can be a protection to animals. 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.

Based on your understanding of the passage, attempt the questions given below. (1x5=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 change widely over time and in different parts of the world.
d) The colouring 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 Colour of Animals
b) The Desert 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 $\qquad$ .
a) annoying
b) difficult to see
c) noticeable
d) dreadful
iv. 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
v. The example of the kingfisher in the second paragraph is intended to prove that the colour of an animal is $\qquad$ .
a) always adapted to match the background color of its environment
b) statistically speaking, most likely to be adapted to match the background color of its environment
c) an extraneous detail, evolutionarily speaking
d) not always adapted to match the background color of its environment

Answer questions 2 to 4 in 20-40 words.
Q2. "It's really getting bad now," exclaimed the man. I hope it passes quickly.
What was really getting bad? Why does the man hope it passes quickly?
Q3. Whom do you think Nelson Mandela refers to as 'outlaws not so long ago' and why?
Q4. How did the 'unlikely object' become the 'accepted member' of the gang?

## Answer question 5 in 60-80 words.

Q5. According to the poet, how does a tiger, kept in a zoo, feels?
Q6. Make a comic strip on the lesson 'A Letter to God" on an A-4 sheet.
Q7. Read the conversation given below and complete the sentences that follow.
Interviewer: Why do you want to be a computer programmer?
Ravi: I have always been interested in computers.
Interviewer: Do you have any experience?
Ravi: No, but I am eager to learn.
The interviewer asked Ravi(a) $\qquad$ .Ravi replied that(b) $\qquad$ At this the interviewer further asked Ravi(c) $\qquad$ . Ravi answered in negative but (d) $\qquad$ .

Q8. If he had worked hard, he $\qquad$ have passed the examination. (must/would)
ii. Complete the given sentence, by filling in the blank with the correct option: I $\qquad$ working all afternoon to complete the assignment.
a) have been
(b) had been
(c) shall be
(d) am

Q9. You are Dilavar/Zarine Khan, a resident of Modi Enclave, Raipur. While going to the office you notice a number of homeless people taking shelter under the flyovers in the small parks. The encroachment looks really shabby as it is in the center of the market. Write a letter to the Editor showing your concern about it, in not more than 120-150 words. Also suggest some ways to curb the problem.

Q10. You are Mrs. / Mr. Gupta residing at 23/A, Safdarjung Enclave, New Delhi. Your son is a student of class XII and wants to pursue a course in Mass Communication. Write a letter in about 120-150 words to the Dean, Institute of Mass Communication, University of Delhi, seeking information about the course, admission, procedure, eligibility, criteria, fee structure, hostel facilities, placement opportunities, etc.

## Subject: Hindi

## प्रश्न 1 निम्नलिखित गद्यांश पर आधारित प्रश्नों के उत्तर उचित विक्पल चुनकर दीजिष्०

( $1 \times 5=5$ )
जन्म देने वाली माता 'जननी' कहलाती है, परन्तु जो भूमि हमें , हमारे जीवन का आधार प्रदान करती है वह मावृभूमि कहलाती है।यही मावृभूमि अन्न, जल, आवास्स और पहचान देती है। माता की तरह पालना करती है और पिता की तरह संरक्षण प्रदान कर उपकृत करती है। और इसी मातृभूमि की रक्षा के लिए सैनिक हँसते - हँसते अपने प्राण तक न्योछावर कर देते है। भारतीय सैनिक अपने परिवार से दूर रहकर देश की सीमाओं की रक्षा करते हैं।जब हम सभी अपने घरों में आराम से सो रहे होते हैं उस समय भी वह कठिन परिस्थितियों का सामना करते हुए देश की रक्षा के कार्य में लगा रहते है।उसका जीवन अपने लिए न होकर देश के लिए होता है।दृढ़ निश्चय , देशभक्ति, वीरता ,साहस और कर्त्तव्यानिष्ठा उसके व्यक्तित्व के अभिन्न गुण हैं।इन्ही गुणों के कारण विश्व में मारतीय सैनिकों का बहुत सम्मान है।एक सैनिक अपने कर्त्तव्यों का निर्वाह केवल युद्धभूमि में ही नही करता बल्कि जब भी देश को उसकी आवश्यकता होती है वह अपने कर्त्तव्यों का वहन सबसे पहले करता दिखाई देता है। आज भी परिस्थितियों को देखते हुए चाहे देश के आंतरिक उपद्रव हों या धर्म के नाम पर होने वाले दंगे - फसाद, वह कर्त्तव्यों का पालन करते हुए गौरव का अनुभव करता है। प्राकृतिक आपदाओं जैसे भूकंप ,सूखा या बाढ़ आने पर वह पीडितों को राहत पहुँचाने के कार्यो को अंजाम देता है। उसे कभी भी किसी किसी प्रकार का लालच नहीं होता।हमारी सरकार का यह नैतिक दायित्व बनता है कि इन सैनिकों के घर- परिवार को सुख- सुविधाएँ मुहैया करवाये। शहीदों के बर्च्चों के लिए शिक्षा की उचित व्यवरशा करे।उनके माता- पिता को आश्रय प्रदान करे।हमें भी चैनिकों के प्रति सम्मानपूर्वक व्यवहार कर कृतज्ञता प्रकट करनी चाहिए।
(i) मावृभृमि किस्ते कहते है ?
(क) जन्म देने वाली माता
(ख) जीवन का आधार देने वाली भूमि
(ग) पालन करने वाली मॉ
(घ) फसल पैदा करने वाली भूमि
(ii) भारतीय चौनिक अपने देश के लिए क्या करता है?
(क) देश के लिए प्राण न्यौछावर करता है।
(ख) देश के लिए मेहनत करता है ।
(ग) देश के लिए सभी कार्य करता है।
(घ) देश के लिए व्यापार करता करता है।
(iii) हमारी सरकार का सैनिकों के प्रति क्या दायित्व है?
(क) सैनिक को सुविधाएँ प्रदान करे।
(ख) सैनिक की पत्नी को सुविधाएँ प्रदान करे।
(ग) सैनिक के बच्च्चों को सुविधाएँ प्रदान करे।
(घ) सैनिक के परिवार को स्रुविधाएँ प्रदान करे।
(iv) भारतीय सैनिक के व्यक्तित्व के अभिन्न गुण कौन से है?
(क) साहस, निराशा, मेहनत
(ख) दृढ़ निश्चय, अकर्मण्यता, हिम्मत
(ग) साहस्स, दृढ़ निश्चय ,कर्त्तव्यनिष्ठा
(घ) आलस, साहस , कर्व्तव्यनिष्ठा
(v) हमारा सैनिकों के प्रति व्यवहार कैसा होना चाहिए ?
(क) असम्मानपूर्वक
(ख) सम्मानपूर्वक
(ग) घूणितपूर्ण
(घ) उदारता
निम्नलिखित प्रश्नों के उत्तर उचित विकल्प चुनकर्र दीजिएः :
प्रश्न 2 परेशानी में उलझा हुआ नै कुछ भी न कर सका। वाक्य में विशेषण पदबंध क्या है?
(क) कुछ भी न कर सका
(ख) परेशानी में उलझा हुआ
(ग) fै कुछ भी न कर सका
(घ) परेशानी में उलझा हुआ मैं
प्रश्न 3 वह बाज़ार जा चुका होगा | वाक्य में टेखांकित पदबंध कौन-सा है ?
(क) संज्ञा पदबंध
(ख) किया पदबंध
(ग) कियाविशेषण पदबंध
(घ) विशेषण पदबंध
प्रश्न 4 निम्नलिखित वाक्य में से संयुक्त वाक्य कौन-सा है ?
(क) मोर होने पर हम लोगा आगरा पहुँचे ।
(ख) मोर हुई और हम लोग आगरा पहुँचे।
(ग) जैसे ही भोर हुई और हम लोग आगरा पहुँचे ।
(घ) भोर होते ही हम लोग आगरा पहुँचे ।
प्रश्न 5 कक्षा में प्रथम आने के लिए निखिल $\qquad$ पढ़ाई करता है। रिक्त स्थान में किस मुहावरे का प्रयोग किया जाएगा?
(क) ऑखे फोड़कर
(ख) ऑखे खोलकर
(ग) ऑखे झुकाकर
(घ) ऑखे उठाकर
प्रश्न 6 'त्रिफला' का उचित समास्स विग्रह क्या होगा?
(क) तीन फलों का समाहार
(ख) तीन फूलों का समाहार
(ग) तीन पलों का समाहार
(घ) तीन रातों का समाहार
निम्नलिखित प्रश्नों के उत्तर दीजिए -
$(3 \times 2=6)$
प्रश्न 7 कहानी के अनुसार बड़े भाई साहब को क्या विशेषाधिकार मिला हुआ था ?
प्रश्न 8 हर प्राणी में राम के बसने की तुलना किससे की गई है?
निम्नलिखित प्रश्नों के उत्तर दीजिए $(2 \times 2=4)$ प्रश्न 9 (क) ठाकुरबारी के प्रति गाँव वालों के मन में अपार श्रद्धा के जो भाव हैं उससे उनकी किस मनोवृत्ति का पता चलता है?
(ख) हरिहिर काका की किस स्थिति ने लेखक को चिंतित कर दिया?
प्रश्न 10 'हर्तकला सांरकृतिक केन्द्र' की ओर से ग्रामीण कलाकार्यों द्वारा हर्त्तनिर्मित वस्तुओं की बिकी बढ़ाने एवं उसके प्रचार- प्रस्सार के लिए लगभग 50 शब्दों में आकर्षक विज्ञापन तैयार कीजिए।

## Subject: Mathematics

Q-1 Given that L.C.M. $(91,26)=182$, find H.C.F 91,26$)$.
Q-2 State fundamental theorem of arithmetic with an example.
Q-3 Explain why $(17 \times 5 \times 11 \times 3 \times 2+2 \times 11)$ a composite number.
Q-4 Find the value of ' $k$ ' such that the polynomial $x^{2}-(k+6) x+2(2 k-1)$ has sum of its zeroes equal to half of their product.

Q-5 If two positive integers are expressed in the form of $a=p q^{2}$ and $b=p^{3} q$ where $a$ and $b$ being prime numbers, then find the H.C.F $(a, b)$.

Q-6 Prove that $\sqrt{ } 5+2$ is an irrational number.
Q-7 Find the greatest number that will be divisible by 445,572 and 699 leaves a remainder 4,5,6 respectively.

Q-8 Prove that $\sqrt{ } 2$ is irrational and hence prove that $7 / \sqrt{ } 2$ is irrational.
Q-9 Solve by Substitution method.

$$
\begin{equation*}
x+y=4 \quad \ldots . .(i), \quad 2 x-3 y=11 \ldots \ldots . \text { (ii) } \tag{3}
\end{equation*}
$$

Q-10 Find the zeroes of the polynomial $x^{2}-4 x+3$.

## Subject: Science

Q1 What is the role of valves in heart?
Q2.A pencil partly immersed in water and held obliquely appears to be bent at the water surface. Explain.

Q3. When 5 ml of dil. HCl is added to the test tube containing zinc pieces, a colourless gas is evolved with brisk bubbles. How would you identify the gas evolved? Write the chemical equation associated with it.
Q4. Human heart does not allow mixing of oxygen rich blood with carbon dioxide rich blood. Give reasons.
Q5. The figure given below shows an object AB and a converging lens L with foci F 1 and F 2 .


Draw two rays from the object AB and complete the figure to locate the position of image CD . Also mark on the diagram the position of eye from where the image can be viewed.

State three characteristics of the image in relation to the object.
Q6. How will you indicate the following effects in a chemical equation? Give one example of each.

- Endothermic reaction
- Precipitate formation
- Gas evolved

Q7. Enumerate the mechanism of breathing in man.
Q8.A spherical mirror produces an image of magnification -1 on a screen placed at a distance of 50 cm from the mirror.

$$
(1+1+1+2)
$$

(a) Identify the type of mirror.
(b) Find the distance of the image from the object.
(c) What is the focal length of the mirror?
(d) Draw the ray diagram to show the image formation in this case.

Q9. Observe the following image carefully and answer the following questions:

(i) State any three observations.
(ii) Write the names and chemical formulae of the products formed.
(iii) Name the type of chemical reaction.
(iv) Write the relevant chemical equation for this chemical reaction.

Q10. Draw the schematic representation of double circulation in human.

## Subject: Social Science

Q1. Differentiate between stock resources and reserves.
Q2. Who was proclaimed the German Emperor in a ceremony held at Versailles in January 1871 ?1
Q3. Name the female allegory representing the Republic of France.
Q4. Mention any four negative factors which since pre-independence to the present period have contributed significantly to the fearful depletion of flora and fauna in India.
Q5. Explain any three steps that can be taken to solve the problem of land degradation? 3
Q6. What does the cartoon represent? Identify the two leaders shown in the cartoon.


Q7. How is the power shared among different social groups and political parties?
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? 3 Q9. What is development? Explain the indicators used by UNDP for measuring development.3 Q10. Explain any three features of Napoleonic Code.

## Subject: Information Technology

## I Multiple choice questions:

$\begin{array}{ll}\text { i. A web page is located using a } & 1\end{array}$
(a) Universal Record Linking (b) Uniform Resource Locator
(c) Universal Record Locator (d) Uniformly Reachable Links
ii. Instant messaging service accepts instant messages from
(a) external sites (b) internal sites (c) Both (a) and (b) (d) None of these
iii. Which of the following is an application based instant messaging software?
(a) Google Talk (b) eBuddy (c) Meebo (d) MSN Web Messenger
iv. A blog consists of (a) images (b) text (c) links (d) All of these 1
v. $\qquad$ is the act of posting content on a blog.
(a) Edublog
(b) Posting (c)
(c) Blogging
(d) Blogger
vi. Which of the following offers a blog service?
(a) Drupal (b) Joomla (c) WordPress.com (d) All of these

## II Short Answer Type Questions

2. Explain the purpose of online transactions. 2
3. List any five websites that allow online transactions. 2
4. What do you mean by Cash on Delivery? 2
5. Identify web addresses and E-mail addresses from the following. 2
(i) www.scrapbook.com
(ii) aba@scrapbook.com
(iii) www.countrywide.co.in
(iv) $123 @$ hotshot.co.in

## Long Answer Type Questions

6. What are the benefits of online shopping? (Mention any three) 3
7. What is a computer network? Why do we need networking in our system? 3
8. Rehana needs to set up a network for his office where she wants to save all the data in a centralized system and other computers will take the services from the centralized system. Which architecture will be the best suitable for her and why?
9. Write a short note on 'Qumana' an offline blog editor. 3
10. Name any three websites that are used for booking travel tickets.
