

SUNRISEVILLE SCHOOL, NOIDA
SUMMERS HOLIDAY HOMEWORK (2018 – 2019)

Class IX

ENGLISH

READING SECTION

Q1. Read the poem and answer the questions that follow:

Nepal, a small, mountainous country tucked between India and China, may seem completely foreign to many Americans. Cows walk down busy streets unharmed, 24 different languages are spoken, and people eat two meals of rice and lentils every day. Nepali holidays, many of which are related to the Hindu religion, can seem especially bizarre to Americans unfamiliar with the culture. However, if we look beyond how others celebrate to consider the things they are celebrating, we find surprising similarities to our own culture. The biggest holiday in Nepal is Dashain, a ten-day festival for the Hindu goddess Durga that takes place in September or October. According to Hindu beliefs, Durga defeated the evil demons of the world. To thank the goddess, people visit temples in her honor and sacrifice goats or sheep as offerings. Throughout the year, most Nepalese do not eat much meat because it is expensive, but Dashain is a time to enjoy meat every day. Children fly colorful, homemade kites during Dashain. People also construct enormous bamboo swings on street corners and in parks. Every evening people gather at these swings and take turns swinging. Nepalese say that by swinging, people can relieve the earth of their weight, if only for a few minutes out of the year. Dashain is a time for people to eat good food, relax, and enjoy themselves! Aside from eating and enjoying themselves, during Dashain people also receive blessings from their elders. Schools and offices shut down so people can travel to be with their families.

- 1) Where is Nepal situated?
- 2) Which of the following sentences from the passage best indicates why the author thinks Nepal would seem very foreign to many Americans?
 - A. "Cows walk down busy streets unharmed, 24 different languages are spoken, and people eat two meals of rice and lentils every day."
 - B. "Every evening people gather at these swings and take turns swinging."
 - C. "People also clean and decorate their homes for Dashain."
 - D. "During American holidays, people may not sacrifice goats or soar on bamboo swings, but we do often travel to be with family members and take time off work or school to relax."
- 3) As used in paragraph 1, bizarre most nearly means-----
 - A. unbelievable
 - B. unknown
 - C. awkward
 - D. strange
- 4) The colorful kites and bamboo swings are both used as examples of -----
- 5) why do the people of Nepal not eat meat throughout the year?
- 6) How many languages are spoken in Nepal?
- 7) What is Dashain ?
- 8) Find a word from the passage which means -----gigantic

Q.2 Read the passage given below and answer the questions that follow -----

Nicholas Chorier is not your usual photographer. He is a kite aerial photographer. He uses a kite to hoist his camera into the skies and clicks photographs while the camera dangles precariously mid-air. As a teenager, Nicholas had two passions – photography and kite flying. During a trip to India to make a photo report on kite making, he learnt about this unique style of photography. Fascinated, he literally tied his two hobbies together for a living. Nicholas learnt to make strong kites modelled on the Japanese kites, Rokkaku that could endure harsh winds. A novice in his chosen field, he then set out to train himself. Today he is one of the most well-known kite aerial photographers in the world. The technique is to tie a cradle containing the photography equipment to the string of the kite and then fly it, thus launching the camera into air. From the ground, Nicholas manipulates the angles of the camera with a remote. An air-to-ground video link enables him to see the view from the kite's vantage point. Once satisfied with the frame, he clicks a picture. However, the job does have its pitfalls too. Once, his kite disappeared in the Yamuna river, with his expensive camera in tow. He is especially fond of India, having made a couple of trips and taken many spectacular photos. "India is too vast and beautiful a country to be captured through the lenses in one life" he says. He recently released a book, Kite's Eye View : India between Earth and Sky. Though it includes photographs of off taken sites like the Taj Mahal, it shows them from a totally different perspective.

1. What were Nicholas's two passions ?
2. How does Nicholas take aerial photographs ?

3. What is 'Rokkaku'?
 4. Pick out words from the passage which mean. (i) endure (ii) expensive
 5. Which book did he recently release and what did it reveal?
 6. What risks do aerial photographers face ?
- Q-3.** Your brother, who is in a hostel, is very fond of eating street Amritsar food. As a result, he keeps getting sick. Write a letter in 100 words telling him about the harmful effects of junk food and advising him to eat healthy food . You are Arjun/ Arpita of C- 8, Lawrence Road, Delhi.
- Q-4.** You are Lalit/ Lalita Khurana , a resident of D- 61 Vikas Nagar New Delhi. You are very much disturbed about the bad lighting in your town .write a letter to the editor asking the authorities to take steps to maintain the electricity condition.
- Q-5.** You are Madhav , the organizing secretary of the debating society of the Oxford School , Meerut. Your school is organizing an inter house Debate competition. Write a notice informing the students to take part in competition.

Q 6 Fill in the blanks choosing the most appropriate words from the given options.

When Alexander and his men (a) the plain of Gaugamela, they found that the ground (b) levelled. The Persian chariots stood in formation, ready to attack across that flat surface. Darius (c) his scythed chariots to propel themselves forcefully into the Greek forces, with (d) ripping at the flesh of both horses and men. The chariots began their rapid (e) the army of Alexander the Great. The Greek general, (f) a quick assessment of the situation, ordered the ranks of the Greek fighters to split apart.

- (a). (i) were reaching (ii) reach (iii) reached (iv) have reached
- (b) (i) had been (ii) is being made (iii) is made (iv) was made
- (c) (i) has expected (ii) did expect (iii) had expected (iv) expected
- (d) (i) there carved blades (ii) they're curved blades (iii) their curved blades (iv) they curving blades
- (e) (i) drove to (ii) drive towards (iii) drives to (iv) driven along
- (f) (i) having made (ii) have made (iii) had to make (iv) is having to make

Q 7- Write the biography of wordsworth.

Q 8- Write the summary of the novel Gulliver in Lilliput.

HINDI

- 1- 5 foKki u cukb, vkj fyf[k,
- 2- vuPNn y[ku dj&
d- eu ds gjsgkj g\$ eu ds thrs thr
[k- thou ea vuqkkl u dk egRo
- 3- eysdk] eV/sLV'sku o l enrV l sl icf/kr fp= cukdj ml dk o.ku dhft; A
- 4- vi usfe= dks dfork i k B ifr; k\$ xrk ea i fke vkus ij , d c/kkbl i = fyf[k; A
- 5- 10 o.koPNn o 10 mil xZ i R; ; dsmnkj .k fyf[kkA

MATHEMATICS

Find the values of a and b:

1. $\frac{\sqrt{3}-1}{\sqrt{3}+1} = a + b\sqrt{3}$
2. $\frac{3+\sqrt{7}}{3-\sqrt{7}} = a + b\sqrt{7}$
3. $\frac{5+2\sqrt{3}}{7+4\sqrt{3}} = a + b\sqrt{3}$
4. $\frac{5+\sqrt{3}}{7-4\sqrt{3}} = 47a + b\sqrt{3}$
5. $\frac{\sqrt{5}+\sqrt{3}}{\sqrt{5}-\sqrt{3}} = a + b\sqrt{15}$

$$6. \frac{\sqrt{2}+\sqrt{3}}{3\sqrt{2}-2\sqrt{3}} = a-b\sqrt{6}$$

Simplify each of the given

$$7. \frac{3}{5-\sqrt{3}} + \frac{2}{5+\sqrt{3}}$$

$$8. \frac{4+\sqrt{5}}{4-\sqrt{5}} + \frac{4-\sqrt{5}}{4+\sqrt{5}}$$

$$9. \frac{\sqrt{5}-2}{\sqrt{5}+2} - \frac{\sqrt{5}+2}{\sqrt{5}-2}$$

$$10. \text{if } x=2+\sqrt{3}, \text{ find the value of } x^2+\frac{1}{x^2}$$

$$11. \text{If } x = 3 - 2\sqrt{2}, \text{ find } x^2+\frac{1}{x^2}$$

$$12. \text{If } x = 1 - \sqrt{2}, \text{ find the value of } (x - \frac{1}{x})^3.$$

$$13. \text{if } x = \frac{\sqrt{3}+\sqrt{2}}{\sqrt{3}-\sqrt{2}} \text{ and } y = \frac{\sqrt{3}-\sqrt{2}}{\sqrt{3}+\sqrt{2}}, \text{ find } x^2 + y^2.$$

$$14. \text{If } a = \frac{2-\sqrt{5}}{2+\sqrt{5}} \text{ and } b = \frac{2+\sqrt{5}}{2-\sqrt{5}}$$

16. If P(2,p) is the mid-point of the line segment joining the points A(6,-5) and B (-2,11), find the values of p.

17. If A(1,2), B(4,3) and C(6,6) are the three vertices of a parallelogram ABCD, find the coordinates of the fourth vertex D.

18. Point P divides the line segment joining the points A (2,1) and B(5,-8) such that $\frac{AP}{AB} = \frac{1}{3}$. If P lies on the line $2x - y - k = 0$, find the value of k.

19. If R (x,y) is a point on the line segment joining the points P(a,b) and Q(b,a), then prove that $x+y = a+b$.

20. Prove that the points P(a, b+c), Q(b,c+a) and R(c,a+b) are collinear.

21. If the points A($-\frac{2}{5}, 6$) and B (2,8), find the value of m.

22. What is the distance between the points A(c, 0) and B(0, -c)?

23. Point P divides the line segment joining the points A(-1,3) and B (9,8) such that $\frac{AP}{PB} = \frac{k}{1}$. If P lies on the line $x-y+2=0$, find the value of k.

24. If the points (p,q); (m,n); and (p-m,q-n) are collinear, show that $pn=qm$.

25. Find the values of k, if the points A (8,1`) , B(3,-4) and C(2,k) are collinear.

26. A die is thrown once. What is the probability of getting a number greater than 4?

27. A bag contains cards which are numbered from 2 to 90. A card is drawn at random from the bag. Find the probability that it bears

(i) a two digit number

(ii) a number which is a perfect square.

28. Two coins are tossed simultaneously. Find the probability og getting exactly one head.

29. From a well-shuffled pack of cards, a card is drawn at random. Find the probability of getting a black queen.

30. A die is thrown once. Find the probability of getting

(i) a prime number

(ii) a number divisible by 2.

31. A die is thrown once. Find the probability of getting

(i) an even prime number

(ii) a multiple of 3.

32. If the probability of winning a game is $\frac{5}{11}$, what is the probability of losing it?

33. What is the probability of having 53 Mondays in a leap year?

34. A die is thrown once. Find the probability of getting a number less than 3.

35. A pair of dice is thrown once. Find the probability of getting same number on each die Factorize each of the given by splitting the middle term:

$$36. x^2 + 3\sqrt{3}x + 6, x^2 + 3\sqrt{3}x - 30, 4\sqrt{3}x^2 + 5x - 2, 5\sqrt{5}x^2 + 30x + 8\sqrt{5},$$

$$37. \text{If } a + b + c = 0 \text{ and } a^2 + b^2 + c^2 = 16, \text{ find the value of } ab + bc + ca.$$

$$38. \text{If } a^2 + b^2 + c^2 = 16 \text{ and } ab + bc + ca = 10, \text{ Find the value of } a + b + c.$$

39. If $a + b + c = 9$ and $ab + bc + ca = 23$, Find the value of $a^2 + b^2 + c^2$.
40. Find the value of $4x^2 + y^2 + 25z^2 + 4xy - 10yz - 20zx$ when $x = 4, y = 3$ and $z = 2$.
41. Simplify: $(a + b + c)^2 + (a - b - c)^2$
42. If $a^2 + b^2 + c^2 = 250$ and $ab + bc + ca = 3$, Find the value of $a + b + c$.
43. If $a + b + c = 0$ and $a^2 + b^2 + c^2 = 20$, find the value of $ab + bc + ca$.
44. If $9x^2 + 25y^2 = 181$ and $xy = -6$. Find the value of $3x + 5y$
45. If $2x + 3y = 8$ and $xy = 2$, Find the value of $4x^2 + 9y^2$
46. Simplify $175 \times 175 + 2 \times 175 \times 25 + 25 \times 25$
48. Prove that
 $2a^2 + 2b^2 + 2c^2 - 2ab - 2bc - 2ca = [(a - b)^2 + (b - c)^2 + (c - a)^2]$

SOCIAL SCIENCE

- Make a project on 'Disaster Management'.
 It should be of at least 15 pages, hand written, presentable (with pictures) and with following contents:
 - Introduction
 - Types of Disaster
 - Describe any one disaster
 - Disaster Management
- In A3 size Pastel Sheet
 - Locate all the states of India with their capital (Roll No. 1-10)
 - Locate the physical features of India (Roll No. 11-20)
 - Locate all the important rivers of India (Roll No. 21-36)
- Locate all the countries of Europe on the map. Also make a list of all the European Countries their capital and the name of their head of state.
- In your region, talk to two labourers (either farm labourers or construction site labourers) and prepare a report.
 - What wages do they get
 - Are they paid in cash or kind
 - Do they get work regularly
 - Are they in debt
- Why democracy is called a best form of government?
- Describe the political situation of Pakistan between the year 1999-2004. Was it democratic?

SCIENCE

CHEMISTRY

- Q1. Define Condensation.
- Q2. The melting point of a substance is below the room temperature. Predict its physical state.
- Q3. What is the effect of pressure on boiling point?
- Q4. State the effect of surface area on rate of evaporation.
- Q5. Why Kelvin scale of temperature is regarded as better scale than Celsius?
- Q6. What happens when liquid is heated?
- Q7. Do we sweat more on a dry day or a humid day? Justify your reason?
- Q8. How will you show that air has the maximum compressibility?
- Q9. Give reason:
- A sponge can be pressed easily, still it is called a solid.
 - Water vapours have more energy than water at same temperature.
- Q10. What are inter molecular forces? How are these related to the states of matter?
- Q11. What is meant by mass percentage of solution?
- Q12. A solution contains 40 ml of ethanol mixed with 100 ml of water. Calculate the concentration in terms of volume by volume percentage of the solution?

Q13. Which of the following is the chemical change:

- a. Growth of plant.
- b. Rusting of iron
- c. Cooking of food
- d. Freezing of water
- e. Burning of a candle
- f. Mixing of iron fillings and sand
- g. Digestion of food

Q14. What is meant by evaporation? What are the factors on which the rate of evaporation depends upon?

Q15. Classify the following in the elements, compounds and mixture:

- a. Sodium
- b. Soil
- c. Silver
- d. Carbon Dioxide
- e. Blood
- f. Silicon
- g. Sugar solution
- h. Methane
- i. Tin
- j. Calcium Carbonate
- k. Air

PHYSICS

1. Complete note book.
2. Do exercises of the chapters of NCERT book done in the class including numericals.
3. Make a model based on physics.
4. Learn all the derivations done in the class.

BIOLOGY

- Q1)What is cell? Write the name of discoverer.
- Q2)Which cell organelle is known as brain of cell?
- Q3)Which cell organelle is known as powerhouse of cell and why?
- Q4)Name any two double membranous cell organelles and explain them.
- Q5)Give differences between Plant cell & Animal cell.
- Q6)Differentiate between osmosis & Diffusion.
- Q7)Differentiate between prokaryotic cell & eukaryotic cell.
- Q8)Which cell organelle is known as suicidal bag and why?
- Q9)Write the functions of Plasma membrane.
- Q10)Differentiate between unicellular & multicellular organisms.
- Q11)What would happen if plasma membrane ruptures?
- Q12)What would happen to the life of cell if there was no Golgi apparatus?
- Q13)Name any two structures found in plant cell but not in animal cell.
- Q14)During cooking on adding salts to vegetables water is released. Name the process.
- Q15)What is DNA ?Where is it presents?
- Q16)Differentiate between plasma membrane and cell wall.
- Q17)What would happen if cell wall remains absent in plant cell?
- Q18)Define the term plasmolysis.
- Q19)Differentiate between rough and smooth endoplasmic reticulum.
- Q20)Make a model of Plant cell.