

Holiday Home Work
(Session: 2019 – 2020)

Class: IX

Subject: Science

Biology

1. Complete the work in your laboratory Record copy.
 - (a) To prepare a temporary mount of onion peel cells and write the conclusion.
 - (b) To prepare the temporary mount of human cheek cells and write the conclusion.
2. Differentiate between a prokaryotic and eukaryotic cell along with diagrams.

PHYSICS

A.Choose the correct answer:-

1.If the displacement of an object is proportional to square of time,then the object moves with:-

(a) uniform velocity (b) uniform acceleration (c) increasing acceleration (d) decreasing acceleration.

2.Area under a velocity-time graph represents a physical quantity which has the unit:-

(a) m^2 (b) m (c) m^3 (d) ms^{-1}

3.The numerical ratio of displacement to distance for a moving object is :-

(a) always less than 1 (b) always equal to 1 (c) always more than 1 (d) equal or less than 1

4.The velocity of a body is given by the equation $v = 8 - 0.01 t$, where t is time taken .Then,which of the given statements is not true?

I.The body is undergoing a uniform retardation of $0.01ms^{-2}$.

II.The body is undergoing a uniform acceleration of $0.01ms^{-2}$.

III.The body is undergoing a uniform retardation of $-0.01ms^{-2}$.

IV.The body is undergoing a uniform acceleration of $0.08ms^{-2}$.

(a) I and II (b) I, II and III (c) III and IV (d) II, III and IV

5.A passenger sitting in a moving railway carriage throws a ball vertically upwards.The ball would fall in front of him if the train is moving with

(a) an acceleration (b) a retardation (c) a uniform velocity (d) all of the above

B.Solve the following:-

1.A racing car has a uniform acceleration of 4 ms^{-2} .What distance would it cover in 10 seconds after start?

2.A particle with a uniform acceleration in a straight line has a speed of $V \text{ ms}^{-1}$ at position x metres is given by $V = (80 - 8x)^{1/2}$.What is the acceleration of the particle ?

C.Derive the following equations of motion by means of graphical method:-

(a) $v = u + at$ (b) $S = ut + (1/2) at^2$ (c) $v^2 = u^2 + 2as$

CHEMISTRY

1. Give reasons for the following:

- (i) People sprinkle water on open ground or roof on a hot sunny day.
- (ii) Ice at 273K is more effective in cooling than water at the same temperature.
- (iii) Wet clothes do not dry easily on rainy days.
- (iv) A cooler is quite effective on a hot and dry day.
- (v) Doctors advise to put strips of wet cloth on the forehead of a person having high fever.

2. Convert the following temperature into Kelvin scale.

- | | | | |
|----------------------------|----------------------------|------------------------------|------|
| (i) 27.5°C | (ii) 105°C | (iii) 35.7°C | (iv) |
| 85.0°C | | | |

3. Convert the following temperature into Celsius scale.

- | | | | |
|---------------------|--------------------|-----------------------|--------------------|
| (i) 300.5K | (ii) 543K | (iii) 423.8K | (iv) 280K |
|---------------------|--------------------|-----------------------|--------------------|

4. Differentiate between evaporation and boiling.

5. Explain the properties of solid, liquid and gas.

Subject: VIT

- Q1. Write the full form of:
BOSS, GNU, VIRUS, FLOSS, IAR, POST, COMPUTER, COBOL, SMTP and SOR
- Q2. Explain the parts of CPU in details.
- Q3. Write the difference between:
(a) Wired and Wireless technology.
(b) Primary and secondary memory
- Q4. What is F-D-E-S cycle? Explain in details.
- Q5. What is Operating System? Write their types with examples.
- Q6. Write five features of Operating System.

Subject: Social Science

History

1. The French Revolution popularized many symbols. Each symbol depicted some basic. Draw the symbol and mention the related values.
2. Draw up a list of democratic rights we enjoy today whose origins could be traced to the French Revolution.
3. Page no. 05 (NCERT History Book) Activity
Explain why the artist has portrayed the noble man as spider and the peasant as the flag.
4. What landmark decisions were taken by the National Assembly led by the third estate on the 4th August 1789? What were its result?
5. Map based questions:
 - (i) Name the European countries which share common boundaries with France.
 - (ii) On the political map of France name and locate the following according to the information given –
 - (a) A fortress prison stormed by the people of France.
 - (b) Two port cities of France related to the slave trade.
 - (c) The place which was associated with the National anthem of France.

Political Science

1. Write the name of the top 12 non-democratic countries of the world and mention the type of government in these countries.
2. Write down the political slogan given by the different political parties during the 2019 Lok Sabha Election.

Economics

1. By giving which facilities we can help to start more non-farm activities in a rural area.

ग्रीष्मावकाशाय गृहकार्यम्

कक्षा-नवमी, विषयः-संस्कृतम्

प्र01 निम्नलिखितानां सन्धिनां विच्छेदं कृत्वा दश-दश उदाहरणानि लिखत-

i) गुण सन्धिः, ii) दीर्घ सन्धिः, iii) यण सन्धिः, iv) वृद्धि सन्धिः, v) अयादि सन्धिः।

प्र02 अधोलिखितानाम् प्रत्ययानां दश-दश उदाहरणानि लिखत।

i.) क्त्वा, ii.) ल्यप्, iii.) तुमुन्

प्र03 अधोलिखितानाम् अकारान्त-आकारान्त- ईकारान्तशब्दानां रूपाणि लिखत।

i.) बालक ii.) रमा iii.) नदी

प्र04 निम्नलिखितानाम् उपसर्गानाम् एकैकम् उदाहरणं संस्कृतभाषायां लिखत।

i. प, ii. परा, iii. सम्, iv. अनु, v. अव, vi. निर, vii. दुर, viii. वि, ix. अधि,
x. अति, xi. सु, xii. उत्, xiii. अभि, xiv. प्रति, xv. परि।

SUB: MATHEMATICS

- Q1. Find the value of a and b if $\frac{3-\sqrt{5}}{3+2\sqrt{5}} = a\sqrt{5} - b$
- Q2. If $x + \frac{1}{x} = \sqrt{7}$, find the value of $x^4 + \frac{1}{x^4}$
- Q3. Simplify: $\frac{1}{3\sqrt{7}} + \frac{1}{\sqrt{7}+\sqrt{5}} + \frac{1}{\sqrt{5}+\sqrt{3}} + \frac{1}{\sqrt{3}+1}$
- Q4. If 1 and -1 are the zeroes of the polynomial $p(x) = ax^3 + x^2 - 2x + b$, find the value of a and b.
- Q5. $a = \frac{\sqrt{3}-\sqrt{2}}{\sqrt{3}+\sqrt{2}}$ and $b = \frac{\sqrt{3}+\sqrt{2}}{\sqrt{3}-\sqrt{2}}$, find the value of $a^2 + b^2 - 5ab$.
- Q6. Express 2.5434343... in $\frac{p}{q}$ form.
- Q7. Locate $\sqrt{4.2}$ on number line.
- Q8. Find three different irrational number between $\frac{9}{5}$ and $\frac{7}{11}$.
- Q9. Find the value of a if $(1-2x)$ is a factor of polynomial $2x^4 - ax^3 + 4x^2 + 2x + 1$.
- Q10. What must be added to $(x^3 - 3x^2 + 4x - 15)$ to obtain a polynomial which is exactly divisible by $(x-3)$?
- Q11. What must be subtracted from $(x^4 + 2x^3 - 2x^2 + 4x + 6)$ so that the result is exactly divisible by $(x^2 + 2x - 3)$?
- Q12. Without actual division, prove that $(2x^4 - 5x^3 + 2x^2 - x + 2)$ is divisible by $(x^2 - 3x + 2)$.
- Q13. Find the value of m for which $(2x-1)$ is a factor of $(8x^4 + 4x^3 - 16x^2 + 10x + m)$.
- Q14. If $(x^3 + ax^2 + bx + 6)$ has $(x - 2)$ as a factor and leaves a remainder 3 when divided by $(x+3)$.
Find the value of a and b.
- Q15. Factorise:
- $x^4 + x^2y^2 + y^4$
 - $x^8 - 1$
 - $\sqrt{2}x^2 + 3x + \sqrt{2}$
 - $7x^2 + 2\sqrt{14}x + 2$
 - $\frac{3}{5}x^2 - \frac{19}{5}x + 4$

Class- IX ENGLISH

BRUSH UP YOUR ENGLISH KNOWLEDGE

Q1. Name the part of speech of each underlined word in the following:

Once there lived a giant with a long beard. He slept for six months a year. One day, he was walking slowly through a dense forest when he suddenly felt sleepy. He climbed up a huge tree and sat on its highest branch. He started snoring within minutes. Days passed, a little sparrow came that way, 'Wow! This is a nice place to make a nest', said the bird and made a nest there. Soon many other birds came along, and they too made their nests there.

Q2. Complete the following Tense Chart:

	Present	Past	Future
Simple	(i) I go.	(i) I _____.	(i) I _____.
	(ii) He _____.	(ii) He ate.	(ii) He _____.
Continuous	(iii) She is writing.	(iii) She _____	(iii) She _____
	(iv) They _____.	(iv) They were playing.	(iv) They _____.
Perfect	(v) Amit has Completed his Work .	(v) Amit _____	(v) Amit _____
	(vi) I _____	(vi) I had gone to Goa.	(vi) I _____.

Q3. Change the following Direct Speech into Indirect Speech.

- i. He said, "I am unwell."
- ii. He said, "My master is writing letters."
- iii. Amrit said, "I have passed the examination."
- iv. Mohan says, "The teacher is not at home."
- v. She said, "I wrote a letter."
- vi. They said, "We were playing football."
- vii. The man said, "God is everywhere."
- viii. He said to me, "Thank you."
- ix. The teacher said to the students, "Have you done your work?"
- x. The new student said to me, "Where is the library?"

Q4. Change the following into Interrogative sentences:

- i. He plays football.
- ii. She sings well.
- iii. He is writing a letter.
- iv. He went to the market.
- v. Amit likes to eat mangoes.
- vi. She has completed her work.
- vii. I am hungry.
- viii. Mohit runs fast.
- ix. The dog barks loudly.
- x. The baby was crying.

Q5. Write the Past and the Past Participle form of the following verbs:

act, bend, blow, catch, creep, die, eat, fly, flow, grow, hear, invite, jump, keep, lay, lie, move, narrate, obey, perform, quote, refer, secure, tie.

6. Read the story 'Coolie' by R. K. Narayan and 'Kabuliwala' written by Rabindranath Tagore .

Note :- Do your Holiday Homework in Subject Enrichment copy.

Subject: Hindi

1. अलंकार से क्या समझते हैं?
2. अलंकार के भेदों को सोदाहरण सचित्र लिखें।
3. समास किसे कहते हैं?
4. समास के भेदों को सोदाहरण लिखें।

