MOHINDER SINGH MEMORIAL PUBLIC SCHOOL

SESSION : (2020-21)

Dear Parents,

The global pandemic corona virus or covid-19 has caused a road bump in children's educational journey. While students are thrilled at the extended summer vacation. During summer vacations, children usually divert their energy in outdoor activities and games. However, a mass lockdown in the country has forced everyone to stay at home. It is the only way to keep our kids' Safe 'but summer vacation do not just sit idle and watch television. So, let's your child's creativity flourish by indulging them in some simple and yet fun filled activities.

- Parents are advised to guide motivate and facilitate their children to complete their holidays homework.
- Working together will help your child build confidence ,learn to reason and develop skills for her /his education
- Encourage them to spend time with parents and grandparents
- Play indoor games with your child.

General instructions for homework

- ✓ Take a printout of the holidays homework and do the work as per teachers' instruction.
- ✓ Maintain a beautiful decorated folder for holidays homework with properly labeled students name, class, roll no and subject.
- ✓ Parents can be facilitator at home but the work should be done independently by the child in his/her own handwriting.
- ✓ Decorate the cover page beautifully
- ✓ Well organized and beautiful work will be the subject of appreciation.

WISH YOU A SAFE AND HAPPY HOLIDAYS

By Principal

SUB 1: <u>ENGLISH</u>

1-write the biography of 'Bismilla khan'.

2- write the summary of Lost child.

3- Learn and write 50 phrasal words and use it in your own sentences.

4- Make a beautiful poster following topics:

A- save the earth

B- stop plastic use.

5- write and revise tenses and also write the structure of all parts of tense.

6- Learn question answers of all chapters.

7- Do the following questions as well: -

asked the same question.

In the given passage one word has been omitted in each line. Write the missing word along with the word that comes before and the word that comes after it. Underline the word that form your answer.

		e.g.	of	many	children
Professor APJ Abdul Kalam was one of children					
born to tall and handsome parents. he was short boy	(a)				
with undistinguished looks. They lived in ancestral	(b)				
house, which was built in middle of the 19th century.	(c)				
It was fairly large pucca house made of	(d)				
limestone and brick, on Mosque Street in	(e)				
Rameshwaram. Austere father used to avoid	(f)				
all inessential comforts and luxuries.					

In the given passage one word has been omitted in each line. Write the missing word along with the word that comes before and the word that comes after it. Underline the word that form your answer.

		e.g.	was	a	hot
It was hot summer night; about ten o'clock					
I had meal at the restaurant and returned	(a)				
to my room. I heard noise from above	(b)				
as I opened door. The sound was a familiar one.	(c)				
One could say that rats and I shared the room.	(d)				
I took out box of matches and lighted the	(e)				
Kerosene lamp on table. The house was not electrified.	(f)				

JUMBLED WORD

Rearrange the following words and phrases to form meaningful sentences. One is done as an example

Examples :

a) bats / to / harmless / most / people / are
   Most bats are harmless to people.

b) fact / tyres / father / a / the / her / olive / Shruti / about / told
   Her father told Shruti a fact about the olive trees.

i) main / growth / is / population / the / problem

ii) role / education / an / can / important / play

iii) better / us / hope / a / let / future / for

iv) their / those / ancestors / were / trees / by / planted

v) trees / her / the / frightened / olive / silvery-green

vi) in the / dancers / they / swayed / ghostly / like / dark

—※ ※ ※—

as mammoth or as small as an iota.

30 Collection of human organs for transplant surgery

The death of Dr Christian Barnard, the famous transplant surgeon, has occurred at a time when many of his modern counterparts are facing difficulties. Many of the early problems, such as tissue rejection, have, to a great extent, now been solved, thanks to the introduction of new drugs. However, there remains a major problem. The people in need of transplant surgery far outnumber the available organs. The shortage of organ donors has caused several doctors to call for urgent improvements to be made to the system by which organs are donated. Many countries, such as Britain, have huge waiting lists of people whose lives could be saved by being given a kidney, lung, heart, or liver transplant. Sadly, many of them die before they reach the top of those lists.

Under the present British scheme, people are asked to carry donor cards, and/or put their names on the national donor register. Thus, if they lose their lives suddenly, for example, in a traffic accident, they have given permission in advance of their deaths for their organs to be used. If they have not done so, surgeons are faced with the task of asking the distraught next-of-kin for permission to use the organs of the deceased. Of course, often the relatives are too upset even to think of such a thing until it is too late. Organ transplants have to take place quite soon after the death of the donor.

Dying and donating organs is not something most of us like to think about, and only about 14% of people have registered. Now, it has been suggested that, instead of the present register, there should be a register of people who wish to opt out of having their organs removed for transplant surgery. Increasing the number of donors is made more difficult because it is such an emotive issue. Just recently, an article in the Journal of the American Medical Association showed that half of the families in the United States refused, when asked for permission to use the organs of their loved ones.

Type 1. MCQ

1. Contemporary doctors face difficulties in transplant surgery because:
   (a) Tissue rejection has not been solved
   (b) Expert doctors like Christian Barnard are not at hand to give advice
   (c) People needing transplant outnumber donors
   (d) Introduction of new drugs has led to harmful side effects.

2. Patients often meet an unfortunate end because of _____.
   (a) Shortage of donors   (b) Tissue mis-match
   (c) Lack of good doctors   (d) Lack of funds

   Carrying donor cards is helpful in _____.
   (a) Asking people to donate organs (b) Preventing accidental deaths
   (c) Locating relatives of donors   (d) Locating donors quickly after death

   Many do not want to donate organs because _____.
   (a) They are selfish   (b) They cannot reach the hospital in time
   (c) They are ignorant   (d) Of emotional reasons

   The word 'distraught' in the third paragraph means _____.
   (a) Upset   (b) Angry
   (c) Selfish   (d) Happy

pe 2. Students' Response Supply (Sentence Completion & Gap Filling)

Sentence Completion Type

It is true that problems like _____ have now been solved by the transplant surgeons, there is shortage of human organs to be transplanted on the patients.

Certain immediate _____ in the organs donation system are now needed in countries like Britain where patients of several ailments in waiting list, die before their turn of transplant.

In order to cope with very problem, people in Britain are issued _____ and enrolled on the _____.

In the very register, donors of organs give _____ in advance of their deaths that allow surgeons to extract their organs when they die in road accidents and due to other reasons than ill health.

In case, organ donor has not given such advance permission, it become difficult or too late to get the organs from the _____ under permission of his heirs.

Gap Filling Type

People in need of (a) _____ are in more numbers than the donors of organs. Problems like tissue rejection have been solved but it is difficult to get sufficient organs in (b) _____ with the number of patients in row to transplantation surgery. Britain has recently thought over issuing donor cards and enrolment of their names on the national donor register. There are patients of kidney, lung, heart and liver, which have (c) _____ the organ donors. Donors have to give their (d) _____ during their life time and it is mentioned on very register so as their heirs or next of kin may not prevent the surgeon to (e) _____ the body of the dead in road accident or in likewise other mis-happening, have as otherwise ill health.

The Indian Way

SUB 2: <u>HINDI</u>

अपठित गद्यांश

गांधीवाद में राजनीतिक और आध्यात्मिक तत्वों का समन्वय मिलता है| यही इस वाद की विशेषता है| आज संसार में जितने भी वाद प्रचलित है वह प्राय: राजनीति क्षेत्र में सीमित हो चुके हैं| आत्मा से उनका संबंध-विच्छेद होकर केवल बाह्य संसार तक उनका प्रसार रह गया है| मन की निर्मलता और ईश्वर-निष्ठा से आत्मा को शुद्ध करना गांधीवाद की प्रथम आवश्यकता है| ऐसा करने से नि:स्वार्थ बुद्धि का विकास होता है और मनुष्य सच्चे अर्थों में जन-सेवा के लिए तत्पर हो जाता है| गांधीवाद में सांप्रदायिकता के लिए कोई स्थान नहीं है| इसी समस्या को हल करने के लिए गांधीजी ने अपने जीवन का बलिदान दिया था|

उपरोक्त गद्यांश के आधार पर निम्नलिखित प्रश्नो के उत्तर लिखिए-

(क) गांधीवाद और अन्य प्रचलित वाद किस प्रकार अलग हैं ?

(ख) गांधीवाद की आवश्यकता किसे बताया गया है ?

(ग) गांधी जी को अपने जीवन का बलिदान क्यों देना पड़ा ?

(घ) 'आध्यात्मिक' शब्द में मूल शब्द और प्रत्यय अलग कीजिए।

(ड़) प्रस्तुत गद्यांश का उपयुक्त शीर्षक लिखिए।

उपरोक्त गद्यांश के संभावित उत्तर-

(क) गांधीवाद राजनीतिक और आध्यात्मिक तत्वों का समन्वय है, जबकि संसार में अन्य प्रचलित बाद प्रायः राजनीतिक क्षेत्र में सीमित हो चुके हैं।

(ख) गांधीवाद की प्रमुख आवश्यकता मन की निर्मलता और ईश्वर में निष्ठा से आत्मा को शुद्ध करना है, क्योंकि यह निःस्वार्थ बुद्धि का विकास कर मनुष्य को सच्चे अर्थों में जन-सेवा के लिए तत्पर करता है।

(ग) गांधी जी के आदर्शों में सांप्रदायिकता के लिए कोई स्थान नह और सांप्रदायिकता की समस्या को हल करने के लिए गांधी जी क अपने जीवन का बलिदान देना पड़ा।

(घ) मूल शब्द- आध्यात्म, प्रत्यय इक

(ड़) गांधीवाद और राजनीति

अपठित गद्यांश

भारतेंदु के जीवन का उद्देश्य अपने देश की उन्नति के मार्ग को साफ-सुथरा और लंबा-चौड़ा बनाना था। उन्होंने इसके काँटों और कंकड़ों को दूर किया। उसके दोनों और सुंदर-सुंदर क्यारियां बनाकर उनमें मनोरम फल-फूलों के वृक्ष लगाए। इस प्रकार उसे सुरमय बना दिया कि भारतवासी उस पर आनंदपूर्वक चलकर अपनी उन्नति के इष्ट स्थान तक पहुंच सके। यद्यपि भारतेंदु जी अपने लगाए हुए वृक्षों को फल-फूलों से लदा न देख सके, फिर भी हमको यह कहने में किसी प्रकार का संकोच नहीं होगा कि वे जीवन के उद्देश्य में पूर्णतया सफल हुए। हिंदी भाषा और साहित्य में जो उन्नति आज दिखाई पड़ रही है उसके मूल कारण भारतेंदु जी है और उन्हें ही इस उन्नति के बीज को रोपित करने का श्रेय प्राप्त है।

उपरोक्त गद्यांश के आधार पर निम्नलिखित प्रश्नो के उत्तर लिखिए-

(क) भारतेंदु के जीवन का उद्देश्य क्या था ?

(ख) भारतेंदु ने अपने जीवन में क्या किया ?

(ग) भारतेंदु जी को किसका श्रेय प्राप्त है ?

(घ) मनोरम का अर्थ बताइए ?

(ड़) प्रस्तुत गद्यांश का उपयुक्त शीर्षक लिखिए।

उपरोक्त गद्यांश के संभावित उत्तर-

(क) भारतेंदु के जीवन का उद्देश्य अपने देश की उन्नति के मार्ग को साफ-सुथरा और लंबा-चौड़ा बनाना था। इस उद्देश्य के लिए उन्होंने इसके मार्ग की बाधाओं को दूर किया। उनका यह उद्देश्य हिंदी भाषा की उन्नति से सम्बद्ध था।

(ख) भारतेंदु जी ने देश की उन्नति के मार्ग को देशवासियों के लिए सरल बनाने हेतु कांटे-कंकड़ हटाकर, मार्ग के दोनों ओर सुंदर क्यारियां बनाकर उनमें मनोरम फल-फूलों के वृक्ष लगाए।

(ग) हिंदी भाषा और साहित्य में वर्तमान में दिख रही उन्नति के बीज बोने का श्रेय भारतेंदु जी को प्राप्त है।

(घ) मन को रमाने वाला।

(ड़) भारतेंदु जी के जीवन का लक्ष्य।

खंड {घ} लेखन

[20 अंक]

1. निम्नलिखित में से किसी एक विषय पर दिए गए संकेत बिंदुओं के आधार पर लगभग 200-250 शब्दों में निबंध लिखिए (10)

1. मधुर वाणी बोलिए

संकेत बिंदु
- भूमिका
- कटुवचनों से होने वाली हानियाँ
- मधुर वचनों का महत्त्व
- उपसंहार

2. आधुनिकीकरण और भारत

संकेत बिंदु
- भूमिका
- आधुनिकीकरण से हानि
- आधुनिकीकरण के संदर्भ में भारत की उपलब्धियाँ
- उपसंहार

3. मानवीय त्रासदी की करुण गाथा

संकेत बिंदु
- भूमिका
- भूकंप
- मानवीय क्षति का विस्फोट
- त्रासदी का स्वरूप
- महाप्रलय
- उपसंहार

2. जल आपूर्ति बाधित होने की समस्या पर जल आपूर्ति अधिकारी को एक पत्र लिखिए, जिसमें जल आपूर्ति को सुचारु बनाने का अनुरोध किया गया हो। (5)

अथवा

रास्ते में गुम हो गए एयरबैग को एक अपरिचित द्वारा लौटाने पर उसे धन्यवाद पत्र लिखिए।

3. एक कॉस्मैटिक वस्तु बनाने वाली कंपनी की ओर से 25-50 शब्दों में उत्पाद के प्रचार हेतु विज्ञापन लिखिए। (5)

3. परीक्षा भवन,
मध्य प्रदेश।

दिनांक 12 अप्रैल, 20XX

सेवा में,
प्रधानाचार्य जी,
डी. ए. वी पब्लिक स्कूल,
जयंत प्रोजेक्ट सिंगरौली,
मध्य प्रदेश।

विषय स्थानांतरण प्रमाण-पत्र जारी करने हेतु।

महोदय,

विनम्र निवेदन है कि मैंने इस वर्ष कक्षा 10 की परीक्षा आपके विद्यालय से प्रथम श्रेणी में उत्तीर्ण की है। मेरे पिताजी का स्थानांतरण उत्तर प्रदेश में हो जाने के कारण मुझे भी वहाँ के विद्यालय में प्रवेश लेने की बाध्यता हो गई है। नए विद्यालय में प्रवेश के लिए मुझे स्थानांतरण प्रमाण-पत्र की आवश्यकता है।

अतः आपसे विनम्र निवेदन है कि मेरी परिस्थितियों को ध्यान में रखते हुए मुझे यथाशीघ्र स्थानांतरण प्रमाण-पत्र जारी करने का आदेश देने की कृपा करें। इस कार्य हेतु मैं सदैव आपका आभारी रहूँगा।

धन्यवाद!

प्रार्थी
क.ख.ग

4. परीक्षा भवन,
दिल्ली।

दिनांक 7 मार्च, 20XX

सेवा में,
डाकपाल महोदय,
मुख्य डाकघर,
गोल डाकखाना,
नई दिल्ली।

विषय डाक वितरण की अव्यवस्था के संदर्भ में।

निवेदन है कि हमारे क्षेत्र का डाकिया अपना कार्य अत्यंत लापरवाही से करता है। वह प्रतिदिन डाक बाँटने के स्थान पर कई दिन में एक बार डाक बाँटता है। इससे कई बार बिल आदि के जमा करने की तारीख निकल चुकी होती है। पिछले मास मुझे एक साक्षात्कार का पत्र चार दिन विलंब से मिला। वह डाक को इधर-उधर फेंक जाता है, जबकि अधिकांश निवासियों ने पत्र-पेटिका लगा रखी है। हमने उसे कई बार समझाने की कोशिश की है, पर इससे उस पर कोई प्रभाव नहीं पड़ा। अतः विवश होकर हमें पत्र लिखना पड़ रहा है।

आपसे विनम्र निवेदन है कि आप डाकिए को सही ढंग से कार्य करने के लिए प्रेरित करें।

धन्यवाद सहित!

भवदीय
क. ख. ग.

5. परीक्षा भवन,
दिल्ली।

दिनांक 07 जून, 20XX

सेवा में,
अरिहंत पब्लिकेशन,
टी.पी.नगर,
मेरठ।

विषय पुस्तकें मँगवाने हेतु।

अभ्यास-कार्य

1. निम्नलिखित वाक्यों को पढ़कर सही (✓) अथवा गलत (×) का निशान लगाइए:
   1. मूल शब्दों में कुछ शब्दांश जोड़कर नए शब्द बनाए जाते हैं। ☐
   2. शब्द निर्माण की प्रक्रिया के दौरान बना नया शब्द केवल भिन्न शब्द वर्ग का ही होता है। ☐
   3. 'आदि प्रत्यय' को ही संस्कृत में उपसर्ग कहा गया था। ☐
   4. दो मूलांशों को मिलाकर भी शब्द निर्माण संभव है। ☐
   5. उपसर्ग तथा प्रत्यय भाषा की लघुतम सार्थक इकाई है। ☐
   6. कुछ उपसर्ग अनेकार्थी भी होते हैं। ☐
   7. तत्सम उपसर्ग हिंदी की अपनी विशेषता है। ☐
   8. आगत उपसर्गों को ही विदेशी उपसर्ग भी कहते हैं। ☐

2. निम्नलिखित शब्दों में से उपसर्ग अलग करके लिखिए:

शब्द	उपसर्ग	शब्द	उपसर्ग	शब्द	उपसर्ग
1. अनुगमन	अनु	12. प्रत्याघात	....	23. सशक्त	....
2. उल्लंघन	उत्	13. उपमान	....	24. अधिपति	....
3. दुर्दिन	....	14. अभिमान	....	25. निर्यात	....
4. प्रकृति	....	15. उपासना	....	26. परितोष	....
5. संन्यासी	....	16. परीक्षा	....	27. आतम्	....
6. स्वदेश	....	17. प्रगति	....	28. उन्मेष	....
7. कपूत	....	18. प्रख्यात	....	29. सत्संग	....
8. संपादक	....	19. बदचलन	....	30. कमज़ोर	....
9. प्रवृत्ति	....	20. अवलोकन	....	31. संवेदना	....
10. संकलन	....	21. प्रत्यक्ष	....	32. विपक्ष	....
11. परिणाम	....	22. उद्योग	....		

निम्नलिखित शब्दों में से उपसर्ग व मूल शब्द अलग-अलग करके लिखिए:

शब्द	उपसर्ग	मूल शब्द	शब्द	उपसर्ग	मूल शब्द
1. सुरक्षा	.... +	....	9. अनुमान	.... +	....
2. परोपकार	.... +	....	10. निर्मल	.... +	....
3. परोपजीवी	.... +	....	11. प्रतिक्षण	.... +	....
4. संस्थान	.... +	....	12. पुनर्मिलन	.... +	....
5. आपूर्ति	.... +	....	13. चौमासा	.... +	....
6. स्वयंचालित	.... +	....	14. भरसक	.... +	....
7. व्याकरण	.... +	....	15. ग़ैरहाजिर	.... +	....
8. अत्याचार	.... +	....			

शब्द-निर्माण-उपसर्ग

SUB 3: <u>MATHEMATICS</u>

1. Revise chapter 1 Real Numbers and chapter 2 Polynomials from N.C.E.R.T.
2. Learn and Write all the properties of different types of Quadrilaterals.

Note : Do complete your work in your class note book only.

Do the following questions in fair notebook as well:

Ex.6.3

Questions 4 and 12

Ex.6.2

Questions 3 and 4

Ex.6.1

Questions 3 and 5

Ex.5.1

Questions 4, 5 and 6 and learn all axioms and postulates

Ex.4.4

Questions 1 and 2

Ex.4.3

Questions 1, 3, 4, 6 and 7

Ex.4.2

Questions 2, 3 and 4

Ex.4.1

Question 2

Ex.3.3

Questions 1 and 2

Ex.3.2

Question 1

Ex.2.5,2.4,2.3 and 2.2

Do one question each from questions in given exercises.

Ex.1.6

Questions 1, 2 and 3

Ex.1.5

Questions 2, 4 and 5

Ex.1.3

Questions 3, 4, 7, 8 and 9

Ex 1.2

Question 3

Ex 1.1

Questions 2 and 3

SUB 4: SCIENCE

PHYSICS

1- Solve the following question in fair notebook: -

ASSIGNMENT QUESTIONS
MOTION

Multiple Choice Questions

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. The distance time graph of a body coincides with its time axis. The body must be
    (a) in uniform motion
    (b) at rest
    (c) in uniformly accelerated motion
    (d) in zig-zag motion

3. From the given $v - t$ graph (see below Fig.), it can be inferred that the object is
    (a) in uniform motion
    (b) at rest
    (c) in non-uniform motion
    (d) moving with uniform acceleration
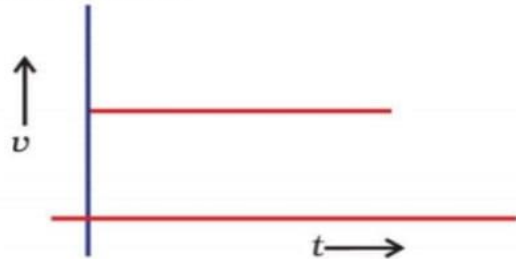
4. The velocity time graph of a body is parallel to the time axis. The body is
    (a) at rest
    (b) having uniform acceleration
    (c) having zero acceleration
    (d) having non-uniform acceleration

5. A particle is moving in a circular path of radius r. The displacement after half a circle would be:
    (a) Zero
    (b) πr
    (c) $2 r$
    (d) $2\pi r$

6. A body is thrown vertically upward with velocity u, the greatest height h to which it will rise is,
    (a) u/g (b) $u^2/2g$ (c) u^2/g (d) $u/2g$

7. 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

8. Suppose a boy is enjoying a ride on a *merry-go-round* which is moving with a constant speed of 10 m/s. It implies that the boy is
    (a) at rest
    (b) moving with no acceleration
    (c) in accelerated motion
    (d) moving with uniform velocity

9. Area under a $v - t$ graph represents a physical quantity which has the unit
    (a) m^2
    (b) m
    (c) m^3
    (d) m/s

10. Four cars A, B, C and D are moving on a levelled road. Their distance versus time graphs are shown in below Fig.. Choose the correct statement
    (a) Car A is faster than car D.
    (b) Car B is the slowest.
    (c) Car D is faster than car C.
   (d) Car C is the slowest.
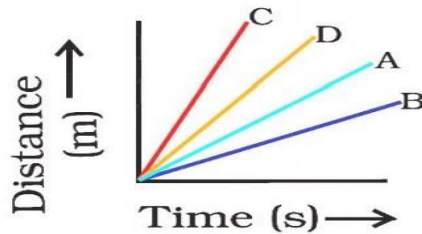
11. Slope of a velocity – time graph gives

    (a) the distance
    (b) the displacement
    (c) the acceleration
    (d) the speed

12. In which of the following cases of motions, the distance moved and the magnitude of displacement are equal?

    (a) If the car is moving on straight road
    (b) If the car is moving in circular path
    (c) The pendulum is moving to and fro
    (d) The earth is revolving around the Sun

13. Which of the following figures (see below Figure) represents uniform motion of a moving object correctly?


(a)

(b)

(c)

(d)
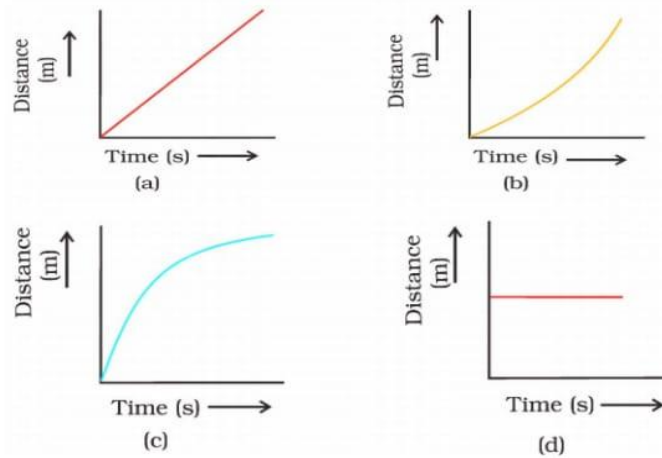
SHORT ANSWER QUESTIONS

14. The displacement of a moving object in a given interval of time is zero. Would the distance travelled by the object also be zero? Justify you answer.

15. How will the equations of motion for an object moving with a uniform velocity change?

16. A car starts from rest and moves along *the* x-axis with constant acceleration 5 m/s² for 8 seconds. If it then continues with constant velocity, what distance will the car cover in 12 seconds since it started from the rest?

17. A motorcyclist drives from A to B with a uniform speed of 30 km/h and returns back with a speed of 20 km/h. Find its average speed.

18. Draw a velocity versus time graph of a stone thrown vertically upwards and then coming downwards after attaining the maximum height.

19. The velocity-time graph (see below Figure) shows the motion of a cyclist. Find (i) its acceleration (ii) its velocity and (iii) the distance covered by the cyclist in 15 seconds.
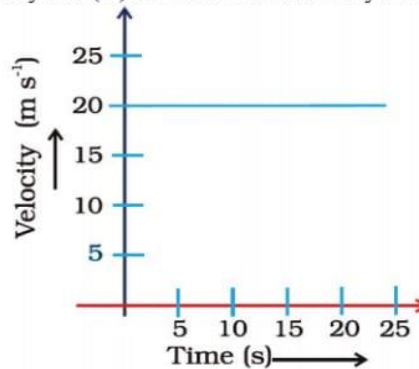
20. A girl walks along a straight path to drop a letter in the letterbox and comes back to her initial position. Her displacement–time graph is shown in below figure. Plot a velocity–time graph for the same.
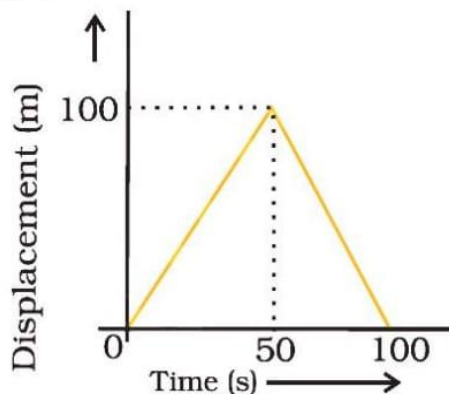
LONG ANSWER QUESTIONS

21. An object starting from rest travels 20 m in first 2 s and 160 m in next 4 s. What will be the velocity after 7 s from the start.

22. An electron moving with a velocity of 5×104 m/s enters into a uniform electric field and acquires a uniform acceleration of 104 m/s^2 in the direction of its initial motion.
(i) Calculate the time in which the electron would acquire a velocity double of its initial velocity.
(ii) How much distance the electron would cover in this time?

23. Obtain a relation for the distance travelled by an object moving with a uniform acceleration in the interval between 4th and 5th seconds.

24. Two stones are thrown vertically upwards simultaneously with their initial velocities u_1 and u_2 respectively. Prove that the heights reached by them would be in the ratio of $u_1^2 : u_2^2$ (Assume upward acceleration is $-g$ and downward acceleration to be $+g$).

25. An object is dropped from rest at a height of 150 m and simultaneously another object is dropped from rest at a height 100 m. What is the difference in their heights after 2 s if both the objects drop with same accelerations? How does the difference in heights vary with time?

CHEMISTRY

1- Do prepare worksheet on fair notebook and also learn the question and answers(worksheets and question answers are attached following)

2- Prepare a project report on various sample of

A- A mixture

B- A compound

C- An element

3 of each category , highlighting the main characteristics features of element ,compounds and mixtures.

4- Prepare a report on "The medicines which are used in prevention of Corona virus".

Structure of the Atom

Q 1) Element having no neutron in its nucleus is
    (a) Hydrogen
    (b) Nitrogen
    (c) Helium
    (d) Boron

Q2) Plum and pudding model of atom was put forward by

    (a) Goldstein
    (b) Bohr
    (c) Thomson
    (d) Rutherford

Q3) Rutherford's alpha particle scattering experiment showed that:
(i) electrons have negative charge.
(ii) the mass &positive charge of the atom is concentrated in the nucleus.
(iii) neutron exists in the nucleus.
(iv) most of the space in an atom is empty.

which of the above statements are correct?
    (a) (i) & (iii)
    (b) (ii) & (iv)
    (c) (i) & (iv)
    (d) (iii) & (iv)

Q4) The outermost shell can not have more than
    (a) 1 e (b) 4 e (c) 6 e (d) 8 e

Q5) In a sample of ethyl ethanoate ($CH_3 COO C_2 H_5$) the two oxygen atoms have the same no. of electrons but different number of nuetrons. Which of the following is the correct reason for it?

    (a) one of the oxygen atom has gained electrons.
    (b) one of the oxygen atom has gained two neutrons.
    (c) the two oxygen atoms are isotopes
    (d) the two oxygen atoms are isobars.

Q 6) Which metal foil was used by Rutherford in his experiment for the discovery of nucleus?

Q 7) Write the value of charge on electron in coulomb.

Q 8) What do you mean by shell or orbit? Write the Electronic Configuration of Potassium.

Q 9) Compare the properties of electrons, protons and neutrons in terms of mass , charge & position.

Q 10) Name an element which has two valence electrons and is a noble gas?

Q 11) What are cathode rays and anode rays?

Q 12) What are isotopes? Give two examples.

Q 13) How is the valency of an atom is related to its electronic configuration?

Q 14) If bromine atom is available in the form of two isotopes $^{79}Br_{35}$ (49.7 %) and $^{81}Br_{35}$ (50.3%), calculate the average atomic mass of bromine atom.

Q 15) The average atomic mass of a sample of an element "X" is 16.2 u. What are the percentages of isotopes $^{16}X_8$ and $^{18}X_8$ in the sample?

Q 16) Mention any two applications of isotopes.

Q 17) An isotope of Lead has mass no. 211 & atomic no. 82. ($^{211}Pb_{82}$).During radioactive disintegration, it gets converted in to an element whose mass number remains the same but atomic number increases by one. Will the end product be an isobar or not?

Q 18) What are the no. of protons, neutrons& electrons present in $^{59}Co_{27}$ and $^{108}Ag_{47}$?

Q 19) State the new concepts incorporated by Neil Bohr in his proposed model of an atom. Draw a diagram to illustrate this model.

Q 20) Describe Rutherford model of Atom & mention the drawbacks of the model as well.

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

Atoms and molecules

Q1)Calculate the % of Nitrogen in urea(NH_2CONH_2).

Q2)Law of conservation of mass was discovered by
  (a) Dalton   (b) Proust   (c) Lavosier (d) Richter

Q3)Two elements X&Y combine in a gaseous state to form XY in the ratio of 1: 35.5 by mass. The mass of Y which combines with 2gram of X will be
   (a) 7.1 gram (b) 3.55 gram (c) 35.5 gram (d) 71 gram

Q4) Match the following:-

Column I	Column II
1 . Sodium	a. Yellow in colour
2 . Helium	b. Diatomic
3. Sulphur	c . Soft metal
4. Hydrogen	d. Noble gas

Q 5)Give one word for the following:-
  (a) Metal present in haemoglobin.
  (b) Reddish brown metal used in making electrical wires.

Q 6) Write correct formulae using given ions.

anions cations	SO_4^{2-}	Cl^-	PO_4^{3-}	O^{2-}	CO_3^{2-}	OH^-	S^{2-}
Na^+							
Cu^{++}							
Al^{3+}							

Q 7) What happens when : --
  (a) Solution of sodium chloride and silver nitrate are mixed together.
  (b) Solution of barium chloride and sodium sulphate react together.

Q8) Calculate the molecular mass of $CuSO_4.5H_2O$
     [Cu=63.5 u,S=32 u,O=16 u,H=1 u.]

Q9) The % of three elements calcium, carbon & oxygen in a sample of calcium carbonate is given as:--

Ca=40.0%,C=12.0%,O=48.0%

If the law of constant proportion is true, what weights of these elements will be present in 1.5 gram of another sample of calcium carbonate?

Q10) What are the features of the Dalton's Atomic theory? Also mention the limitations of the theory .

Q11) Mention four elements which start with the letter B.

Q12) Write the name and symbol of two noble gases.

Q13) What do you mean by molar mass? Calculate the molar mass of sugar? ($C_{12}H_{22}O_{11}$).

Q14) What do you mean by formula unit mass? Calculate the formula unit mass of potassium carbonate(K_2CO_3).

Q15) Calculate the number of moles in:--
        (i) 28 gram of He   (ii) 60 gram of Ca.

Q16) Calculate the mass of:--
    (i) 3.011×10^{32} atoms of O. (ii) 6.022×10^{23} molecules of O_2.

Q17) Calculate the number of moles of iron in a sample containing 10^{22} atoms of iron?

Q18)Calculate the weight of carbon monoxide having the same number of oxygen atoms as present in 22 gram of carbon dioxide?

Q19) What is the mass in 'u' of 10 moles of sodium sulphate?

Q20) What do you mean by Gram molecular mass? Calculate the mass of 0.72 gram molecule of CO_2?

Q.1 Camphor disapperars without leaving any residue. Explain?

Ans. Camphor disappears without leaving any residue because
of sublimation, as it changes its state
directly from solid to gas without changing to liquid.

Q.2 Why do we feel cool when we touch a piece of ice?

Ans. We feel cool because the temperature of ice is 0 deg C and our body's temp is higher than 0 deg C.

Q.3 Convert the following:
a) 573 K
Ans. 573-273= 300 deg

b) 36 deg C
Ans. 273+36 = 309 K

c) 373 deg C
Ans. 373+273= 646 K

Q.4 Both the process of evaporation and boiling involves the change of state from liquid to gas but still they are different from each other. Justify.

Ans. Evaporation is different from boiling as evaporation is a natural phenomenon, occurs on the surface of the water and also it is a slow process whereas boiling is an artificial phenomenon , it occurs in the bulk of liquid and is a fast process

Q.5 Why is Kelvin considered as the best scale for measuring the temperature?

Ans. Kelvin is the best scale for measuring the temperature because it has no max temp. and it can measure temperature to any extent.

Q.6 How can you show that evaporation causes cooling?

Ans. When we put some acetone on our hand , after sometime we will feel coolness on our hand because the action absorbs kinetic energy from our hand & evaporates and evaporation causes cooling.

Q.7 What is the significance of boiling point & melting point of a substance?

Ans. The significance of boiling point and melting point is that it shows the purity of the substance.

Q.8 When we put $CuSO_4$ in water, after sometime we find the soln. turns blue. Why? Also, on heating it what change will occur?

Ans. The solution turns blue because of diffusion. On heating the solution nothing will happen.

Q9. How can you justify that table is a solid?

Ans. When we apply force on the table it doesn't change its shape because its intermolecules are tightly packed , this shows that table is solid.

Q.10 Arrange the following in decreasing order of force of attraction: Water, Salt, Oxygen,
Also, state the reason.

Ans. Salt, Water, Oxygen

Salt has the maximum force of attraction as it is a solid, followed by water as it is a liquid. Oxygen is a gas so its force of attraction is the least.

Q11. State characteristics of matter demonstrated by :

a) diffusion
Ans. Diffusion involves movement of different particles so that they become intermixed uniformly.
b) Brownian motion
Ans. It is the zig-zag movements of the small particles suspended in a liquid in a liquid or a gas.

Q.12 When an incense stick (agarbatti) is lighted in one corner of a room, its fragrance spreads in the whole room quickly .Which characteristic of the particles of matter is illustrated by this observation?

Ans. Particles of matter are constantly moving.

Q.13 The boiling point of alcohol isn 78 deg C. What is this temperature on Kelvin scale?
Ans. K= Deg C + 273 = 78 + 273 = 351 K

Q. 14 The Kelvin scale temperature is 0 K. What is the corresponding Celsius scale temperature?
Ans. -273 degree Celsius.

Q. 15 What is Latent Heat of Fusion?

Ans. The latent heat of fusion (or melting) of a solid is the q uanity of heat in joules required to convert 1 kilogram of the solid (at its melting point) to liquid, without any change in temperature.

Q. 16 Define latent heat of Vaporisation?

Ans. The latent heat of vaporisation of a liquid is the quantity of heat in joules required to convert 1 kilogram of the liquid (at its boiling point) to vapour or gas, without any change in temperature.

BIOLOGY

1- Do one of the following :

A- Make a project report on wildlife sanctuaries and endangered animal species.

Parameters

List of animals found in different zones, habitate and climate in which endangered species are found, steps of recovery including scientific methods or any other feature.

<div align="center">Or</div>

B- Prepare a model to compare plant cell and animal cell using common household items like grains and pulses etc.

SUB 5: <u>SOCIAL STUDY</u>

1- Make map of India (in chart paper)

2- Learn chapter –1 and 2 in Geography , Economics ,Civics and History

3- Learn and write States name with their Capital.