

## SECTION I: LANGUAGE STUDY

## Q.1(A1) Do as directed.

(8)
(1) Pick out the gerund from the following sentence.

There are two ways of avoiding fear.
(2) Make a meaningful sentence using the following phrase.
'shambled in'
(3) Write two compound words
(4) Punctuate the following sentence.
reckless with misery i made a plunge
(5)Identify the type of sentence.

Be very wary of the opinions that flatter your self esteem.
(6)Pick out the pronouns.

Here is your book, take it away.
(7) Add a question tag. Let's try again.
(8)Write down a homograph with the two different meanings.
(A2) Do as directed.
(1) Complete the following word chain of adjectives. Courageous, $\qquad$ brave, $\qquad$
(2) Change the voice.

Protection of World Cultural and Natural Heritage was adopted by UNESCO.
(3) Change the following sentence in indirect narration.
"Can I see you?" I asked, "Alone?"
(4)Pick out the modal auxiliaries and state their function.
(i) I thought he might do it.
(ii) I must get it done.
(B) Do as directed.
(4)
(1) Rewrite the sentence using the present perfect tense. People will not forget his greatness.
(2) Change the given sentence into positive and comparative degrees. Honesty is the best virtue.

## SECTION II: TEXTUAL PASSAGE <br> (READING SKILLS, VOCABUALARY AND GRAMMAR)

## Q.2. (A) Read the following passage and do the activities.

A.1.Choose the correct alternatives and rewrite the sentences:
( disagree, parties, experience, bias)
(i) Many matters, however, are less easily brought to the test of $\qquad$ .
(ii) You can make yourself aware of your own $\qquad$ _.
(iii) If you cannot travel, seek out people with whom you $\qquad$
(iv) Both $\qquad$ may be right, but they cannot both be wrong.
Aristotle could have avoided the mistake of thinking that women have fewer teeth than men, by the simple device of asking Mrs. Aristotle to keep her mouth open while he counted. He did not do so because he thought he knew. Thinking that you know when in fact you don't is a fatal mistake, to which we are all prone. I believe myself that hedgehogs eat black beetles, because I have been told that they do; but if I were writing a book on the habits of hedgehogs, I should not commit myself until I had seen one enjoying this unappetizing diet.
Aristotle, however, was less cautious....
Many matters, however, are less easily brought to the test of experience. If, like most of mankind, you have passionate convictions on many such matters, there are ways in which you can make yourself aware of your own bias. If an opinion contrary to your own makes you angry, that is a sign that you are subconsciously aware of having no good reason for thinking as you do. If someone maintains that two and two are five, or that Iceland is on the equator, you feel pity rather than anger, unless you know so little of arithmetic or geography that his opinion shakes your own contrary conviction. The most savage controversies are those about matters as to which there is no good evidence either way... so whenever you find yourself getting angry about a difference of opinion, be on your guard; you will probably find, on examination, that your belief is going beyond what the evidence warrants.

A good way of ridding yourself of certain kinds of dogmatism is to become aware of opinions held in social circles different from your own. When I was young, I lived much outside my own country in France, Germany, Italy and the United States. I found this very profitable in diminishing the intensity of insular prejudice. If you cannot travel, seek out people with whom you disagree, and read a newspaper belonging to a party that is not yours. If the people and the newspaper seem mad, perverse and wicked, remind yourself that you seem so to them. In this opinion both parties may be right, but they cannot both be wrong. This reflection should generate a certain caution.
A. 2 Write whether the following statements are true or false:
(i) Aristotle believed that hedgehogs eat black beetles.
(ii) Thinking that you know when in fact you don't is a fatal mistake.
(iii) The writer was more cautious than Aristotle.
(iv)The writer found travelling very profitable in diminishing the intensity of insular prejudice.
A.3. Find out the words from the passage which mean:
a. tasteless
b. prejudice
c. deadly
d. proof

A4. 1. He did not do so because he thought he knew.
(Frame a 'wh' question to get the underlined part as its answer)
2. Seek out people with whom you disagree.
(Rewrite as a Negative sentence)
A.5.What is your opinion on superstitions ?
Q.2. (B) Read the following passage and do he activities.
(10)
B.1. Answer in one word/phrase:
(1) Mention the two possessions given to the Dillingham.
(2) What was there between the windows of the room?
(3) Describe Della in two words.
(4)The king and the queen mentioned in the passage.

There was a pier-glass between the windows of the room. Perhaps you have seen a pier-glass in an $\$ 8$ flat. A very thin and very agile person may, by observing his reflection in a rapid sequence of longitudinal strips, obtain a fairly accurate conception of his looks. Della, being slender, had mastered the art.

Suddenly she whirled from the window and stood before the glass. Her eyes were shining brilliantly, but her face had lost its colour within twenty seconds. Rapidly she pulled down her hair and let it fall to its full length.

Now, there were two possessions of the James Dillingham Young in which they both took a mighty pride. One was Jim's gold watch that had been his father's and his grandfather's. The other was Della's hair. Had the queen of Sheba lived in the flat across the airshaft, Della would have let her hair hang out the window some day to dry just to depreciate Her Majesty's jewels and gifts. Had King Solomon been the janitor, with all his treasures piled up in the basement, Jim would have pulled out his watch every time he passed, just to see him pluck at his beard from envy.

So now Della's beautiful hair fell about her rippling and shining like a cascade of brown waters. It reached below her knee and made itself almost a garment for her. And then she did it up again nervously and quickly. Once she faltered for a minute and stood still while a tear or two splashed on the worn red carpet.
On went her old brown jacket; on went her old brown hat. With a whirl of skirts and with the brilliant sparkle still in her eyes, she fluttered out the door and down the stairs to the street
$B .2$ : Match the words in column ' $A$ ' with the words in column ' $B$ ' :

|  | Column 'A' |  | Column 'B' |
| :--- | :--- | :--- | :--- |
| 1 | Eyes | a | Brown |
| 2 | Jacket and hat | b | Piled up in basement |
| 3 | Solomon | c | Shining brilliantly |
| 4 | treasures | d | janitor |

B.3.Form nouns from the following:
(i) nervous
(ii) accurate
(iii) depreciate
(iv) shining
B.4. (i) It reached below her knees.
( add a question tag)
(ii) Whirling from the window, she stood before the glass.
(Rewrite as a compound sentence)
B. 5 Describe the couple's prized possessions in your own words.
Q.3.A. Read the following extract and do the activities.

Tansen, the singer, in great Akbar's Court Won great renown; through the Badshahi Fort His voice rang like the sound of silver bells And Akbar ravished heard. The story tells How the King praised him, gave him many a gem,

Called him chief jewel in his diadem.
One day the singer sang the Song of Fire, The Deepak Rag, and burning like a pyre His body burst into consuming flame.
To cure his burning heart a maiden came And sang Malhar, the song of water cold, Till health returned, and comfort as of old. - Mighty thy Teacher must be and divine, -

Great Akbar said; - magic indeed is thine, Learnt at his feet. - Then happy Tansen bowed And said, - Beyond the world's ignoble crowd,

Scorning its wealth, remote and far-away He dwells within a cave of Himalay. -- Could I but see him once, - desired the King, - Sit at his feet awhile, and listening Hear his celestial song, I would deny My state and walk in robes of poverty. Then said Tansen. - As you desire, Huzoor, Indeed 'twere better as a slave and poor To come; for he, lifted above the things
Of earth, disdains to sing to earthly kings. -
A. Who said the following to whom :
(i) Mighty thy Teacher must be and divine
(ii) He dwells within a cave of Himalay
(iii) Indeed 'twere better as a slave and poor
(iv) Could I but see him once
A.3. Name and explain the figure of speech in the following line.
'Scorning its wealth, remote and far-away'
Q.3.B. Read the following poem and write an appreciation of it with the help of the given points in paragraph format.
(10)

Somebody's Mother

The woman was old and ragged and gray,
And bent with the chill of a winter's day;
The streets were white with a recent snow,
And the woman's feet with age were slow.
At the crowded crossing she waited long,
Jostled aside by the careless throng
Of human beings who passed her by,
Unheeding the glance of her anxious eye.
Down the street with laughter and shout, Glad in the freedom of 'school let out', Came happy boys, like a flock of sheep, Hailing the snow piled white and deep;

Past the woman, so old and gray,
Hastened the children on their way.
None offered a helping hand to her,
So weak and timid, afraid to stir, Lest the carriage wheels or the horses' feet Should trample her down in the slippery street.

At last came out of the merry troop
The gayest boy of all the group;
He paused beside her and whispered low, 'I'll help you across, if you wish to go.' Her aged hand on his strong young arm

# She placed, and so without hurt or harm <br> He guided the trembling feet along, <br> Proud that his own were young and strong; Then back again to his friends he went, His young heart happy and well content. 'She's somebody's mother, boys, you know, For all she's aged, and poor and slow; <br> And someone, some time, may lend a hand To help my mother - you understand? If ever she's old and poor and gray, And her own dear boy so far away.' 'Somebody's mother' bowed low her head In her home that night, and the prayer she said Was: 'God be kind to that noble boy, Who is somebody's son and pride and joy. 

## - Mary Dow Brine

You can use the following points while appreciating the poem.
Title
Poet
Theme/Central idea
Rhyme scheme
Figures of speech
Special features(Type of the poem,imagery, implied meaning if any etc.)
Favourite line/lines
Why I like/don't like the poem

SECTION IV: NON TEXTUAL PASSAGE<br>(Reading Skill, Vocabulary, Grammar and Summary)

Q.4.(A) Read he following passage and do the activities.
(10)

A1 Fill up the boxes with two qualities of a good cartoonist:
1.

2.

What writers struggle to express through numerous newspaper columns, the cartoon manages in a pointed oneliner. Little wonder then, that the first thing most of us like to see when we pickup a newspaper is the cartoon. Simple though it may seem, making a cartoon is an art that requires a combination of hard work, training and a good sense of humour. Cartoonists say that the cartoons that make us laugh the most are in fact the cartoons that are hardest to make. Even celebrated cartoonist like R.K.Laxman admits that making a cartoon is not a piece of cake. Laxman says he has to wait for over six hours, which includes spending a lot of time scanning newspapers and television channels before any idea strikes him.

So how does one become a cartoonist? Which of us has the talent to make it? How can we master the rib-tickling strokes and the witty one-liners? How can we make people smile or laugh? There are few colleges or schools for cartoonists. Most cartoonists come from art colleges, while some learn the craft on their own. Most established cartoonists are of the view that no institute can teach you to make a cartoon. "You can pick up the craft, you may learn to sketch and draw in institutes, but no one can teach anyone how to make a good cartoon," says Uday Shanker, a cartoonist with Navbharat Times. While basics, like drawing and sketching can be learnt in an art college, and are important skills, these alone, do not make a good cartoonist. Because it's a question of one's creativity and sense of humour; two qualities one simply may not have. The advice established cartoonists give is that just because you can sketch, don't take it for granted that you will become a cartoonist.
A2. Write from the passage:.

1. Names of two cartoonists.
2. Two forms of art an aspiring cartoonist can learn in an institute.

A3. Pick out and write two collocations from the passage.
A4. 1.There are few colleges or schools for cartoonists.
( Pick out the determiner)
2. Most established cartoonists are of the view that no institute can teach you to make a cartoon.
( Pick out the clauses and state the type)

A5. Which is your favourite cartoon character? Why?
Q.5. (A) Letter Writing : Attempt any one of the following activities.

Read the following information and write a letter as per the guidelines.
Teach India is looking for the candidates with an urge to teach the underprivileged. Interested candidates kindly send the application to the following address.

Post Box no. - 1122,
Marine drive,
Mumbai - 400002.

A1. Write a letter to the following address applying for the post of an educator.
OR
A2. Write a letter to your friend, who is passionate about teaching, informing him about the above vacancy .
Q.5.B. Dialogue writing or Interview Questions: Attempt any one of the following activities.

B1.Prepare a dialogue between your father and you discussing about terrorism .

B2. Prepare ten interview questions to be asked to a famous Indian Wing Commander.You may ask questions on his childhood, education, beginning of his journey, proud moment of his life, support, role model,future plans, message for the aspiring commanders etc.
Q.6.A. Information Transfer. Attempt any one of the following activities.

## A1. Non-Verbal to Verbal:

Observe the following table carefully and write two short paragraphs.

| Dos | Don'ts |
| :--- | :--- |
| 1. Warm up before yoga asanas | 1. Avoid bouncing in stretches. |
| 2. Try to eat light food |  <br> garlic. |
| 3. Use a mat or blanket to do your <br> postures on. | 3. Don't do yoga in a dirty place or <br> under direct sunlight. |
| 4. Perform asanas with a clean body. | 4. Don't take shower or drink water <br> for 30 minutes after doing yoga. |
| 5. A short walk alone is beneficial after <br> asanas. | 5. Don't do strenuous exercises after <br> yoga. |

OR
A2. Verbal to Non-Verbal:
Read the following paragraph and transfer the information in the form of a pie diagram:

## Types of Pets

A study of pets kept by people in the area shows that maximum people keep dogs as pets. An equal number of people that is $10 \%$ each, keep cats and parrots. Very few people prefer to keep fish and love birds, that is $5 \%$ people keep fish and an equal number keep love birds. The study shows that maximum people keep dogs as pets.
Q6.B. Views/Counterviews (Or) Drafting a speech. Attempt any one of the following activities
B1. Present a view and counterview on the following topic.
'Being Ambitious is Good'

## OR

## B2. Drafting a speech:

Prepare a speech on the topic 'Benefits of Sports', to be delivered by you during your class assembly

## SECTION VI: CREATIVE WRITING

Q. 7) Expansion or News Report. Attempt any one of the following activities.

A1. Expand any of the following ideas into two paragraphs.

1) Miracles Grow out of difficulties.
2) The Importance of Cleanliness.

A2. Prepare a report on 'Visit to an Orphanage' which was arranged by your school recently.
(B) Story or Narrating an Experience. Attempt any one of the following activities.

B1. Writing a Story:

Develop a story in about 80-100 words with the help of the following ending. Suggest a suitable title and moral for the same.

This is how the misunderstanding between two friends got cleared.
OR

## B2. Narrating an experience:

Narrate an experience in about 80-100 words with the help of the following beginning. Suggest a suitable title and moral for it.
It was a usual morning and I was on the way to my school. I saw a man searching for his

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$\qquad$
$\qquad$ Roll No: $\qquad$

## Q1) A. Tick in front of the correct option: -

1. On which of the following are slow movements in the earth's interior dependent?
Landforms $\quad \square$ Velocity $\quad \square$ Direction $\square$
2. Which of the following works of glaciers lead to formation of cirques? Transportation Depositional $\qquad$ Erosional $\qquad$
3. Which of the following cities grew rapidly as a large number of textile mills were started? Pune $\quad \square \quad \begin{aligned} & \text { Nagpur } \square \\ & \text { In India, } \quad \square\end{aligned} \quad$ Mumbai $\square$
receives rains in the month of November.
4. In India, $\qquad$
Mumbai Chennai $\square$

Delhi

B. Match the correct pairs.

Column ' A '

1. WTO

Column 'B'
2. Wind
3. GMT
4. Technological development and mechanisation.
a Mushroom rocks
b. Greenwich Mean Time
c. Geneva
d. Lack of planning
e. Urbanisation

QII) Answer in one sentence each: -

1. Define solifluction.
2. What are the objectives of tourism?
3. By what time the GMT and IST differ?
4. Which is the driest part of India?

## QIII.A) Distinguish between :-

1. Slow internal movements and sudden internal movements.
B) Which method will you use for the following information:-
2. Temperature distribution in Maharashtra state.
3. Taluka wise wheat production in the district.
C) Classify the trade taking place between following regions:-
(1).Maharashtra and Punjab (2) India and Japan (3) Lasalgaon and Pune (4) China and Canada

| Internal trade | External trade |
| :--- | :--- |
|  |  |
|  |  |

1. Make a list of places having hot springs.
2. Name two forts.
3. Name two caves.
B) Mark the following in an outline map of India.
4. Punjab-Haryana Plain
5. Eastern Himalayas
6. Western Ghats.
C) Draw a neat labelled diagram of the following. (any one)
7. International Date Line.
8. Show the epicenter, focus, primary, secondary and surface waves of an earthquake.

QV) Give geographical reasons for the following (any two)

1. Deposition of materials occurs at the places where the effect of sea waves is less.
2. Water transport in the famous Dal lake in Shrinagar is not possible during winters.
3. Tropical cyclones occur rarely in Brazil.

QVI) Answer in brief: (any two)
1 Explain in detail convectional rain.
2. Write the significance and use of IDL..
3. Differentiate between the physiography of Brazil and India.

| Shakur Educational Trust's (Regd.) |  |
| :---: | :---: |
| THAKUR VIDYA MANDIR HIGH SCHOOL \& JR. COLLEGE |  |
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| Marks: 60 | Date: $23 / 03 / 2019$ |

## HISTORY

## Q1. A. Fill in the blanks in the given statements.

1. Railway locomotives are manufactured at $\qquad$ (Salem, Chittaranjan, Kanpur)
2. $\qquad$ made use of women power in the Bhoodan Movement. (Mahatma Gandhi, Jayprakash Narayan, Vinoba Bhave)
3. _is the major centre in the production of bicycles. (Ludhiana, Mumbai, Cochin)
4. Dr. Babasaheb Ambedkar brought about a change in our traditional mindset through the medium of the $\qquad$ . (books, newspapers, Indian Constitution)
Q1. B. Identify the wrong pair, correct it and rewrite.
a. 1. Rajiv Gandhi - Declared Emergency
5. Dr. Verghese Kurien- White Revolution
6. Shri. Narsimha Rao- Economic Reforms
7. Dr. M.S. Swaminathan- Green Revolution
b. 1. Dr. N. Gopinath- Open heart surgery
8. Ramchandra Sharma- A skilled craftsman
9. Dr. Subhash Mukhopadhyaya- Test Tube Baby
10. Dr. Mohan Rao- Polio
c. 1. Prithvi - Surface to Surface ballistic missile
11. Agni - Surface to under water ballistic missile
12. Akash - Surface to air attacking missile
13. Nag- Anti- tank missile.
d. 1. J. P. Naik- Contributed to the work of Kothari Commission
14. R. M. Dave- Minimum level of learning
15. P. Parthasarthy- Open University
16. Eknath Chitnis- Distant education

Q2. A. Complete the concept map. (any 2)

1. Timeline of progress in the medical field.

2. 


3.


## Q2. B. Write Short Notes/ Explain the concept. (any 2)

1. Aluimony.
2. Need of Entertainment. (2 points)
3. Mega Cluster.
4. Immunization campaign was taken up.
5. The Womwn's Liberation Movement began in Maharashtra. (2 points).
6. India decided to conduct nuclear tests.
7. Bharuds composed by Sant Eknath are popular in Maharashtra.

Q3. B. Answer the following in brief. (any 2)

1. The tourism industry has developed in India .
2. Write about Oil and Natural Gas Commission. (3 points)
3. Write about Kothari Commission. (3 points)

## Q4. Read the passage and answer the questions based on it

Communalism means having narrow or excessive pride of one's own religion. The seeds of communalism were sown by the British. Fanaticism is the root cause of communalism. It results in mutual suspicion and distrust among the followers of different religions. The outlook of people becomes prejudiced.

1. What is communalism ?
2. By whom were the seeds of communalism sown ?
3. In your opinion what is the root cause of communalism ?

Q5. Answer the following in detail. (any 2)

1. Dr. A.P.J Abdul Kalam- The 'Missile Man' of India. (4 points)
2. Write about the contribution of Dadasaheb Phalke in film industry. (4 points).
3. Which programmes were included in the Operation Blackboard (4 points).

POLITICAL SCIENCE

## Q6. Fill in the blanks:

1. $\qquad$ is observed on an international level. (Earth day, Flag Day, State Day)
2. The number of members in the Economic and Social Council of UN is $\qquad$ . $45,54,55)$
3. The Chief of the Navy is known as $\qquad$ (Marshall, Admiral, General)
4. National Conference is a party in
$\qquad$ . (Maharashtra, Jammu \& Kashmir, Delhi)
Q7. Explain with reasons if the statements are true or false. (any 2)
5. World became unipolar due to cold war.
6. The Political Parties act as a link between government and people.
7. There are no issues of disputes between India and Pakistan.

Q8. A. Explain the concept. (any 2)

1. Interdependence.
2. World Peace. (2 points)
3. Human Rights.

Q8. B.Complete the following concept maps. (any 2)
1.
2.


1. What are the problems faced by refugees after reaching a safe place ?
2. What are the major characteristics of Political Parties?
3. Objectives of United Nations ?


## Q 1 (A) Solve any four of the following sub-questions:

1. If $U=\{1,2,3,4,5,6,7\}$ and $B=\{1,3,5,7\}$ then find $B$ '
2. Write the decimal form of $\frac{17}{125}$.
3. Transform the ratio given into percentage: $3: 50$
4. The values of the variable which satisfy the equation are called the --- of the equation.
5. Find the class mark of the class 35-40.
(B) Solve any two of the following sub-questions:
6. If $n(A)=7, n(B)=13, n(A \cap B)=4$, then $n(A \cup B)=$ ?
7. Divide and write the answer the simplest form: $\sqrt{310} \div \sqrt{5}$
8. Find the median of the observations; 59,75,68,70,74,75,80

## Q 2 (A) Choose the correct alternative:

1. What is the ratio 1 mm to 1 cm ?
(a) 1:100
(b)10:1
(c) $1: 10$
(d) 100:1
2. Ajay is younger than Vijay by 5 years. What is Ajay's age?
(a) 20
(b) 15
(c) 10
(d) 5
3. A person has earned his income during the financial year 2017-18. Then his assessment year is ---
(a)2016-17 (b)2018-19
(c)2017-18
(d) 2015-16.
4. What is the value of $c$ in the quadratic equation $2 y=10-y^{2}$.
(a) 2
(b) 10
(c) -10
(d) 1
(B) Solve any two of the following sub-questions.
(1) Simplify: $8 \sqrt{5}+\sqrt{20}-\sqrt{125}$
(2) If $\frac{a}{b}=\frac{2}{3}$ then find the value of $\frac{4 a+3 b}{3 b}$.
(3) If $\mathrm{p}(\mathrm{x})=2 \mathrm{x}^{2}-\mathrm{x}^{3}+\mathrm{x}+2$, then find $\mathrm{p}(0)$.

Q3 (A) Complete any two of the following activities:

1) If $\mathrm{U}=\{1,3,5,8,9,10,11,12,13,15\}, \mathrm{A}=\{1,11,13\}, \mathrm{B}=\{8,5,10,11,15\}$

Then $A \cap B=\{\ldots \ldots \ldots \ldots$,
$A \cup B=\{\ldots \ldots \ldots \ldots$,
$A^{\prime}=\{\ldots \ldots \ldots \ldots .$.
$B^{\prime}=\{\ldots \ldots \ldots \ldots$,
2) Complete the following table

| Classes (Age) | Tally marks | Frequency (f) |
| :--- | :--- | :---: |
| $12-13$ | HEI | $\square$ |
| $13-14$ | HE HH IIII | $\square$ |
| $14-15$ | ---- | $\square$ |
| $15-16$ | IIII | $\square$ |
|  |  | $\mathrm{N}=\sum \mathrm{f}=35$ |

3) Factorise the following: $x^{2}-4 x-5$

$$
\begin{aligned}
& x^{2}-4 x-5=x^{2}-5 x+\ldots-5 \\
& =x(\ldots)+1(\ldots) \\
& =(\ldots)(\ldots)
\end{aligned}
$$

(B) Solve any two of the following:
(1) Simplify the following: $4 \sqrt{12}-\sqrt{75}-7 \sqrt{48}$
(2) The ratio of two numbers is $31: 23$ and their sum is 216 . Find the numbers.
(3) Solve: $2 x+y=5 ; 3 x-y=5$.

Q (4) Solve any three of the following sub-questions:
(1) Factorize the following polynomial:

$$
(x-5)^{2}-(5 x-25)-24
$$

(2) Rationalize the denominator: $\frac{1}{3 \sqrt{5}+2 \sqrt{2}}$
(3) Solve using Formula: $5 m^{2}-4 m-2=0$.
(4) The calculated mean of 50 observations was 80 . It was later discovered that observation 19 was recorded by mistake as 91 . What was the correct mean?

Q (5) Solve any one of the following sub-questions:
(1) The mean salary of 20 workers is Rs 10,250 . If the salary of office superintendent is added, the mean will increase by Rs 750 .Find the salary of the office superintendent
(2) Nikhil spent $5 \%$ of his monthly income on his childrens education, invested $14 \%$ in shares, deposited $3 \%$ in a bank and used $40 \%$ for his daily expenses. He was left with a balance of Rs 19,000 . What was his income that month?

Q (6) Solve any one of the following sub-questions:
(1) When $2 x^{2}-a x+7$ and $a x^{2}+7 x+12$ are divided by $(x-3)$ and $(x+1)$ respectively the remainder is same. Find a.
(2) A Farmer bought a cow and a calf together for Rs 14000. After some time, he sold the cow at a profit of $20 \%$ and the calf at a profit of $13 \%$. On the whole he got a profit of $17 \%$. Find the cost price of the cow and the calf.

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QIA) Solve any four out of five-

1. Find $d(A, B)$, if co-ordinates of $A$ and $B$ are 0 and -3 respectively.
2. State corresponding angle test.
3. In rhombus $P Q R S$, if $P Q=7.5 \mathrm{~cm}$ then find $Q R$.
4. Find distance between the points $T(-3,6)$ and $R(9,-10)$.

5 . Find the surface area of a sphere of radius 7 cm .

QIB) Solve any two out of three-

1. Co-ordinate of point $P$ on a number line is -7 . Find the co-ordinate of the points on the number line which are at a distance of 8 units from point $P$.
2. In the figure line $q\|\|\|$ line $r$, line $p$ is their transversal and if $a=80^{\circ}$, find the value of $f$.
3. In $\triangle A B C$, side $A B=$ side $A C$ and $m \angle A C B=50^{\circ}$. Find $\angle B A C$.


QIIA) Choose the correct alternative from the answers of the questions given below.

1. If opposite angles of a rhombus are $(2 x)^{0}$ and $(3 x-40)^{0}$ then value of $x$ is $\qquad$ ...
A) $100^{\circ}$
B) $80^{\circ}$
C) $40^{\circ}$
D) $160^{\circ}$
2. Radius of a sector of a circle is 3.5 cm and length of its arc is 2.2 cm . Find the area of sector.
A) 3.85 sq cm
B) 7.7 sq cm
C) 38.5 sq cm
D) 0.77 sq cm
3. Find the distance of point $P(3,4)$ from the origin.
A) 3
B) 4
C) 5
D) None of these
4. Find the value of $\sin 30^{\circ}+\cos 60^{\circ}$.
A) 3
B) 2
C) 1
D) 0

QIIB) Solve any two out of three-

1. Ray PQ and Ray PR are perpendicular to each other. Points $B$ and $A$ are in the interior and exterior of $\angle Q P R$ respectively. Ray PB and Ray PA are perpendicular to each other. Draw a figure showing all these rays and write a pair of complementary angles.
2. In figure, $S$ is any point on side $Q R$ of $\triangle P Q R$.

Prove that $P Q+Q R+P R>2 P S$.
3. Draw a circle of radius 3.6 cm . Take any point $A$ on it and construct tangent at A.


QIIIA) Carry on any two activities of the following-

1. In the figure bisector of $\angle B A C$ intersects side $B C$ at point $D$.

Prove that $A B>B D$.
Proof: $\angle B A D \cong$ $\qquad$ (Ray AD bisects $\angle B A C$ )
$\angle A D B$ is an exterior angle of $\triangle A D C$.

$>\angle C A D$ (By exterior angle theorem)
In $\triangle A B D$,

2. Find the value of $5 \sin 30^{\circ}+3 \tan 45^{\circ}$.

Solution: $5 \sin 30^{\circ}+3 \tan 45^{\circ}$

3. Find the volume of a cone if the radius of its base is 1.5 cm and its perpendicular height is 7 cm . Solution: Volume of cone=


QIIIB) Solve any two out of three-

1. Construct $\triangle L M N$ such that $L M=7.2 \mathrm{~cm}, \angle \mathrm{M}=105^{\circ}, \mathrm{MN}=6.4 \mathrm{~cm}$ and construct its circumcircle.
2. Draw the graph of equation $x+y=2$.
3. If $\sin \theta=3 / 5$ then find $\cos \theta$.

## QIV) Solve any three out of four-

1. The perimeter of a triangle is 14.4 cm and the ratio of lengths of its sides is 2:3:4 .Construct triangle .
2. In the figure, $\square A B C D$ is a trapezium. $A B\|\|\| D C$. Points $P$ and $Q$ are midpoints of seg $A D$ and seg $B C$ respectively. Prove that $P Q=1 / 2(A B+D C)$.
3. Prove that: The chords of a circle equidistant from the centre of a circle are congruent.
4. Verify that points $P(-2,2), Q(2,2)$ and $R(2,7)$ are vertices of a
 right angled triangle

## QV) Solve any one out of two-

1. In figure, seg PT is the bisector of $\angle \mathrm{QPR}$. A line through $R$ intersects Ray QP at point S. Seg PT|| I\| \| Seg SR. Prove that PS=PR.

2. In the figure $A$ is the centre of the circle. $\angle P A R=30$, $A P=7.5 \mathrm{~cm}$, find area of segment PQR. ( $\Pi=3.14$ )


QVI) Solve any one out of two-

1. In $\square A B C D$, points $P, Q, R, S$ are the midpoints of side $A B, B C, C D$ and $A D$ respectively.

Prove that $\square P Q R S$ is a parallelogram.
2. A bucket is frustum shaped. Its height is 28 cm . Radii of circular faces are 12 cm and 15 cm . Find the capacity of the bucket in litres. ( $\Pi=22 / 7$ )

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| III Term Exam 2018- 2019 |  |
| Subject: Science \& Technology II |  |
| Name: $\quad$ STD: IX $\quad$ Roll No: |  |
| Marks: 40 | Dates: $25 / 03 / 2019$ |

Q1 A . Solve the following questions:

1. State whether True / False: Pteridophytes possess conducting tissue system.
2. Match the pair

| A | B |
| :---: | :---: |
| 1. Lycopene | a. Microbial restrictor |
| 2. Nycin | b. To impart sweetness |
|  | c. Pigment |

3. Find the odd one out: Amputed limb, Cotton bandages, Plastic carrybag, Syringe.
4. Hormones of pancreas
5. Fill in the blank and rewrite the statement
$\qquad$ is used in refracting optical telescope and $\qquad$ is used in reflecting optical telescope.

Q1 B. Rewrite the following sentences using proper alternatives:

1. $\qquad$ tissue is responsible for increasing girth of stem.
(a) Lateral meristem
(b) Apical meristem
(c) Intercalary meristem
(d) Epidermis
2. The network of blood capillaries in Bowman's capsule is called a $\qquad$ .
(a) Synapse
(b) Endocrine
(c) glomerulus
(d) raphides
3. All chromosomes are arranged parallel to equatorial plane of cell in $\qquad$ phase of mitosis.
(a) Prophase
(b) Metaphase
(c) Anaphase
(d) Telophase
4. Chemically, vinegar is $\qquad$ —.
(a) $6 \%$ Acetic acid
(b) $4 \%$ Acetic acid
(c) $7 \%$ Acetic acid
(d) $2 \%$ Acetic acid
5. $\qquad$ is Dicotyledons.
(a) Maize
(b) Mustard
(c) Wheat
(d) Coconut

Q2. Answer the following: (Any 5)

1. Observe the picture

(a) What is the main difference between what we see in the two pictures?
(b) What should we do to permanently maintain the condition seen in picture B ?
2. A person is suffering from a hereditary disease wherein glutamic acid of haemoglobin is replaced with valine in its molecular structure. Due to this, blood vessels are obstructed and have damaged circulatory system, brain, lungs, kidneys etc. Identify the disease and suggest remedy for the same.
3. Give examples of microorganisms involved in following microbial processes -
(a)Cleaning oil spills of rivers and oceans
(b)Regaining fertility of soil polluted by acid rain
4. Flow of nutrients through an ecosystem is cyclic. Give scientific reason.
5. Complete the table -

| Plant Hormones | Function |
| :--- | :--- |
| 1. Auxin |  |
| 2. Gibberellins |  |
| 3. Cytokinins |  |
| 4. Abscisic acid |  |

6. Correct the diagram given below -


## Amino acids <br> $\uparrow$ <br> Fats

7. What is the impact of biotechnology on agricultural management?

Q3. Answer the following: (Any 5)
(15)

1. Study the figure and answer the following questions:

(a) What type of telescope is shown in the figure?
(b) Name the type of rays received by this telescope?
(c) Explain the working of this telescope.
2. Complete the tree diagram related to plant tissues -

3. Draw a well labeled diagram of Nephron.
4. Write a short note on Meteorology.
5. Differentiate between Aerobic and Anaerobic Respiration.
6. Write characteristics of Division Thallophyta.
7. Complete the paragraph -
( abiotic, apex consumers, decomposers, carbohydrate, biotic, herbivores, plants, consumers)
Plants convert carbon dioxide into $\qquad$ by photosynthesis. Similarly, they produce carbon compounds like proteins and fats. Herbivores feed upon $\qquad$ and carnivores feed upon $\qquad$ . In this way, $\qquad$ carbon is transported from plants to herbivores, from herbivores to carnivores and from carnivores to $\qquad$ Eventually, after death, all types of $\qquad$ are decomposed by bacteria and fungi.
8. Define Chromosome. Explain its types.
9. Explain Mendel's dihybrid ratio with the help of any one cross.

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| Marks: 40 | DTD: IX |

Q1A. Attempt the following sub question:

1. Fill in the blank and rewrite the completed statements:

The SI unit of deceleration is $\qquad$
2. Find the odd one out and rewrite it:
$\mathrm{CH}_{4}, \mathrm{C}_{2} \mathrm{H}_{6}, \mathrm{C}_{3} \mathrm{H}_{8}, \mathrm{C}_{3} \mathrm{H}_{6}$
3. Considering the relationship in the first pair, complete the second pair and rewrite:
$\mathrm{Na}^{+}$: Monoatomic ion :: $\mathrm{NH}_{4}^{+}$: $\qquad$
4. Write one difference between Resistors of an electric circuit in figure (A) and (B)

(A)
(B)
5. State whether the statement is True or False:

A medium is necessary for propagation of sound waves.

Q1B. Multiple choice questions:

1. $1 \mathrm{kWh}=$ $\qquad$ joules.
(a) $3.6 \times 10^{3}$
(b) $3.6 \times 10^{6}$
(c) $6.3 \times 10^{6}$
(d) $6.3 \times 10^{3}$
2. An ionic compound NaCl is formed by $\qquad$
(a) $\mathrm{Na}^{+}$and $\mathrm{Cl}^{-}$
(b) $\mathrm{Na}^{+}$and $\mathrm{Cl}^{+}$
(c) $\mathrm{Na}^{-}$and $\mathrm{Cl}^{-}$
(d) $\mathrm{Na}^{-}$and $\mathrm{Cl}^{+}$
3. The normal hearing range for humans is $\qquad$
(a) 0 Hz to 20 Hz
(b) $>20,000 \mathrm{~Hz}$
(c) 20 Hz to $20,000 \mathrm{~Hz}$
(d) None of these
4. The chemical name of baking soda is $\qquad$
(a) Sodium Chloride
(b) Sodium bicarbonate
(c) Calcium Oxychloride (d)
d) Sodium Carbonate
5. The functional group present in alcohol is $\qquad$
(a) -OH
(b) -COOH
(c) -NH
(d) -CO

## Q2. Answer the following question (Any 5)

1. What is acceleration? State its units and types.
2. A ball of mass 0.8 kg is dragged in the upward direction on an inclined plane. Calculate the total potential energy gained by this ball given that the height of the wedge is 0.2 metre.
3. Complete the incomplete table of the images formed by concave mirrors:

| Position of the <br> Object | Position of the image | Nature of image | Size of the image |
| :--- | :--- | :--- | :--- |
| Between focus and <br> centre of curvature |  |  |  |
| Between pole and <br> focus |  |  |  |

4. Study the below given picture and answer the question -

(a) Name the phenomenon shown in the above picture.
(b) Define the phenomenon.
(c) What are the types of rays emitted from the substance kept in Lead block?
(d) Write any one of its use in Medical Science.
5. Draw the electron dot structure of (a) Methanol
(b) Ethene
6. We regularly use artificial colours on Holi and Rang Panchami. It contains high proportion of chemicals posing health problems. Suggest ecofriendly celebration of the festival citing the harmful hazards caused by chemicals.
7. Identify the hydrocarbons -

(A)

(B)

## Q3. Answer the following questions (Any 5)

(15)

1. Complete the paragraph with the given alternatives:
(Insulator, resistivity, lower, directional, random, higher, conductor, resistance)

There are a large number of free electrons in $\qquad$ They are constantly in $\qquad$ motion. When a potential difference is applied between its two ends, electrons start moving from the end at $\qquad$ potential to the end at
$\qquad$ potential. This $\qquad$ of the electrons causes flow of current. Moving electrons strike the atoms and ions which lie along their path. Such collisions cause hindrance to the flow of electrons and oppose the current known as
$\qquad$ _.
2. Give two examples of each - (a) Basic radicals (b) Bivalent acidic radicals (c) Metals with variable valency.
3. Define acids and bases as per Arrhenius theory. Give two examples of each.
4. Draw a neat labelled diagram to illustrate convergence and divergence of light rays by a concave mirror.
5. What factors affect velocity of sound in a gaseous medium?
6. Complete the given figure and explain it -

7. The ability of Bats to fly in the dark depends on their ears and not eyes. Explain the statement.

Q4. Attempt the following sub question : (Any 1)

1. Explain what you see in the picture.

2. Write the properties and uses of the following method.

