## DELHI PUBLIC SCHOOL

SAIL TOWNSHIP, RANCHI ANNUAL EXAMINATION (2019-20)
Class:-IX
Time- 3 Hrs.

## General Instructions:

1. The question paper has 35 questions in all.
2. Marks are indicated against each question.
3. Questions from serial number 1 to 20 are objective type questions. Each question carries $\mathbf{1}$ mark. Answer them as instructed.
4. Questions from serial number 21 to 28 are $\mathbf{3}$ marks questions. Answer of these questions should not exceed 80 words each.
5. Questions from serial number 29 to 34 are $\mathbf{5}$ marks questions. Answer of these questions should not exceed 120 words each.
6. Question number 35 is a map question of $\mathbf{6}$ marks with two parts - $\mathbf{3 5}$ (a) from History (2 marks) and 35 (b) from Geography (4 marks).

## Section - A Very Short Answer Questions

1. Match the following :
Country
The local name of Shifting Cultivation
(a) South-East Asia
(i) Lading
(b) Central America
(ii) Chitemene
(c) Africa
(iii) Milpa
(d) Sri Lanka
(iv) Chena
2. "Two Treatises of Government" was written by:
(a) Rousseau
(b) Montesquieu
(c) John Locke
(d) None of these
3. Study the picture and answer the question that follows:


Which of the following option is true with respect to the above picture?
(a) Drying tendu leaves
(b) Shifting cultivation
(c) Sowing
(d) Taking out weeds
4. Who was the ruler of Russia in 1914?
5. Which one of the following state is not crossed by tropic of cancer.
(a) Tripura
(b) Mizoram
(c) Manipur
(d) West Bengal
6. Complete the following table with correct information regarding Thorn Forests and Scrubs.

| Thorn Forest <br> and Scrubs | Annual Rainfall | Are Found | Main Plant Species |
| :--- | :--- | :--- | :--- |
|  | (A) - ? | Semi arid regions of <br> Rajasthan, Gujarat, <br> Haryana, Madhya <br> Pradesh, Uttar Pradesh | (B) - ? |

7. Why does Kerala have highest sex ratio?

## OR

What is the occupational structure of population in developed nation?
8. Correct the following statement and rewrite:

Democracy leads to corruption for it is based on political competition.
9. Which of the following option best signifies this cartoon?

(a) Parliamentarians want to know about the bill which is going to be presented in next session of parliament.
(b) Politicians want to know whether their name is in the list of the investigation agencies.
(c) Politicians want to know whether they would get a birth in Prime Minister's council of ministers.
(d) Politicians want to know whether they are in the list of the party candidates in next election.
10. Fill in the blanks:
$\qquad$ was tried for treason by the white South African government.

## OR

The $\qquad$ was the umbrella organisation that led the struggle against the policies of segregation.
11. How many seats Lok Dal won alone in 1987 Assembly election?
12. How many families live in Palampur?
13. Which capital would you consider the best?
(a) Land
(b) Labour
(c) Physical capital
(d) Human capital
14. Fill in the blanks:

Prime Minister Rozgar Yojana was started in $\qquad$
15. Which district of Rajasthan is reported to have starvation death's?
(a) Kalahandi
(b) Kashipur
(c) Baran
(d) Palamu
16. Fill in the blanks:

India adopted a new strategy in agriculture, which resulted in the $\qquad$ especially in the production of wheat and rice.

## OR

Indira Gandhi released a special stamp entitled $\qquad$ in July 1968.
17. Antyodaya Anna Yojana was launched in:
(a) 2000
(b) 2002
(c) 2004
(d) 2006
18. What percent of Fair Price shops are run by cooperatives in Tamil Nadu?
(a) $92 \%$
(b) $93 \%$
(c) $94 \%$
(d) $95 \%$
19. In the question given below, there are two statements marked as Assertion (A) and Reason (R). Read the statements and choose the correct option:
Assertion (A):The government declares the Minimum Support Price every year before the sowing season.

Reason (R):Minimum Support Price provide incentives to farmers for raising the production of these crops.
Options:
(a) Both A and R are true, R is the correct explanation of A .
(b) Both A and R are true, but R is not the correct explanation of A .
(c) A is correct, but R is wrong.
(d) A is wrong, but R is correct.
20. Raghu lives in a slum in Kanpur. He has a wife and two children. He works as an agricultural labour.He earns less than 1900 per month. However, with the help of a government scheme he manages to get 13 kg of foodgrains at the rate of Rs 2 per kg wheat and Rs 3 per kg rice.
Analyse the information given above and identify which one of the following scheme has assisted Raghu:
(a) BPL Ration Card
(b) APL Ration Card
(c) Antyodaya Card
(d) Food for Work

## Section - B Short Answer Questions

21. What do you know about Scientific Forestry?

OR
Explain how the lives of the villagers affected by the Forest Acts?
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22. What were the views of Liberals about the transformation of society in the $18^{\text {th }}$ century?
23. Read the sources given below and answer the questions that follow:

## Source A: Support for Socialism

Workers in England and Germany began forming associations to fight for better living and working conditions. They set up funds to help members in times of distress and demanded a reduction of working hours and the right to vote. In Germany, these associations worked closely with the Social Democratic Party (SPD) and helped it win parliamentary seats. By 1905, socialists and trade unionists formed a Labour Party in Britain and a Socialist Party in France.

## Source B: A turbulent Time: The 1905 Revolution

When four members of the Assembly of Russian workers, which had been formed in 1904,were dismissed at the Putilov Iron Works, there was a call for industrial action. Over the next few days over 110,000 workers in St. Petersburg went on strike demanding a reduction in the working day to eight hours, an increase in wages and improvement in working conditions. When the procession of workers led by Father Gapon reached the Winter Palace it was attacked by the police and the Cossacks. Over 100 workers were killed and about 300 wounded. The incident was known as Bloody Sunday.

## Source C: The February Revolution in Petrograd

Demonstrators returned in force to the streets of the left bank on the $26^{\text {th }}$. On the $27^{\text {th }}$, the Police Headquarters were ransacked. The streets thronged with people raising slogans about bread, wages, better hours and democracy. The government tried to control the situation and called out the cavalry once again. However, the cavalry refused to fire on the demonstrators.
23.1. Do you agree that before the socialists, workers' problems were not addressed by any party?
23.2. What is the significance of this incident?
23.3. Why did the demonstrators choose the left bank to demonstrate against the government?
24. Which are the most widespread forests of India? Mention any two characteristics of these forests.

## OR

Suggest three measures that have been taken by the government to put an end to the indiscriminate destruction of our flora and fauna.
25. Which three evils are tackled by Right against Exploitation?

What are the provisions of Cultural and Educational Rights?
27. Is it important to increase the area under irrigation? Why?
28. What are the various activities undertaken in the primary sector, secondary sector and tertiary sector?

## Section - C Long Answer Questions

29. In what ways did the Nazi state seek to establish total control over it's people?

OR
"The Treaty of Versailles was humiliating on the Germans."Give reasons to support your answer.
30. Which island group of India is located in south-west corner of it? Write any four features of these islands.
31. Read the extract and answer the questions that follows :

The inflow of the south-west monsoon into India brings about a total change in the weather. Early in the season, the windward side of the Western Ghats receives very heavy rainfall, more than 250 cm . The Deccan Plateau and parts of Madhya Pradesh also receive some amount of rain in spite of lying in the rain shadow area. The maximum rainfall of this season is received in the north eastern part of the country. Mawsynram in the southern ranges of the Khasi Hills receives the highest average rainfall in the world. Rainfall in the Ganga Valley decreases from the east to west. Rajasthan and parts of Gujrat get scanty rainfall.
31.1. Which branch of South West Monsoon accounts for rainfall along the windward side of Western Ghats ?
31.2. Why does the rainfall decrease from the east to the west in Northern India?
31.3. Write two characteristics of the monsoon rainfall in India.
32. What are the challenges to free and fair elections in India?
33. What powers rest with the Prime Minister of India?

## OR

State the powers of the President.
34. Discuss the major reasons for poverty in India.

## Map Skill Based Question

35. (a) Two places A and B have been marked on the given outline map of France. Identify them and write their correct names on the lines drawn near them.
(A) A port associated with slave trade.
(B) A place associated to French National Anthem.
(b) On the political outline map of India, locate and label any four of the following with suitable symbols :
(i) Bengaluru
(ii) Manipur
(iii) Wular Lake
(iv) Corbett National Park
(v) Bharatpur Bird Sanctuary
(vi) The state having lowest density of population.

# DELHI PUBLIC SCHOOL 

## SAIL TOWNSHIP, RANCHI <br> ANNUAL EXAMINATION (2019-20)

## Class:-IX <br> Time- 3 Hrs.

## Subject:- English <br> M.M.-80

## General Instructions:-

1. This paper is divided into 3 sections: $A, B$, and $C$. All the sections are compulsory.
2. Separate instructions are given with each section and question, wherever necessary. Read the instructions very carefully and follow them.
3. Do not exceed the prescribed word limit while answering the questions.
Section - A (Reading)
4. Read the passage given below and answer the questions that follow:
5. Children should be great bundles of energy- running around and getting into mischief and driving the parents to distraction. But instead they are becoming couch potatoes, a lazy group venturing outdoors only to get chips and sweets and spare batteries for their computer toy.
6. Studies show the younger generation is a lazy one. They get virtually no exercise, have poor diet and spend leisure time in front of computer games or television. The old adage "it wasn't like that in my day" is certainly true. Their grandparents would think nothing of walking several miles to school and would consider a piece of fruit an after school luxury.
7. But only a few decades later children are wooed with bags of chips, sweets and other junk food. And they don't want to shop for these things ; they get them as gifts.
8. In a recent research of Suffolk School, children aged nine to thirteen revealed almost half of the girls and one third of the boys were incapable of sustaining anything more taxing than walking for more than a few minutes.
9. The shocking figures have promoted the first ever conference on children's fitness in Britain. Exercise experts met last month at the Internal Convention for Children's Health Related Fitness in London to find ways to coax kids off the couch and into a more healthier lifestyle.
10. Two prime causes of this are the television and the car. Latest figures show that the average child spends upto 28 hours a week watching TV ,not to mention the time spent on computer games .But if children's lack of physical fitness is frightening, then their diets are an equal cause for concern. Once again modern day conveniences have a lot to answer for.
11. Shopping research shows that instead of eating nourishing foods ,. Kids nag their parents into buying them junk food. These habits have led them to one or more risk factors associated with heart disease.

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a) The present day children take no $\qquad$ and watch a lot of television.
i) Food
ii) interest
iii) exercise
b) Studies show that the younger generation is $\qquad$ one.
i) A lazy
ii) an active.
iii) none of these
c) The present day children are wooed with bags of chips sweets and other $\qquad$ .
i) Healthy food
ii) junk food.
iii) both of these
d) What have the present generation turned into ?
e) What has the recent research of Suffolk school revealed ?
f) What has the shocking figures of recent research made the exercise expert in London do?
g) Mention two main reasons for the unhealthy state of present generation?
h) Food habits of the present generation of children are risky for the health. How?

## 2. Read the following passage carefully :

1. After a long day out in the scorching sun at Nizamuddin railway station, having checked out every bit of garbage disposed off from trains, a group of ragpickers gathered for a chat in a rain-swept shelter. This was no regular gathering for them. It was a Mother's Day gathering.
2. Most children had never heard the word but grew emotional once they got to know what the day signified. Gifts for their mothers ranged from promises of not running away, to earning enough to assure their mothers of some comfort some day.
3. When it came to actual celebrations for the day, a group of boys at the centre run by Chetna, an NGO, near the station, surrounded Manjula Rai. Some even pulled her hair and the rowdy ones calmed down after a stern glance from her. For many boys and girls, this 47-year old social worker is a face recognized as a help at hand. For quite a few of them, Manjula is the 'mother who influences them. 4. When they settled down to talk, the children at Chetna, related their aspirations with thoughtful intent. Vikas Kumar, who felt shy to pronounce the word Mother's Day, said he was determined to secure some day, quality life for his mother, who was a domestic worker. His promise to his mother on Mother's Day was to take out his mother from a rented house and to give her a home with a better life, some day.
4. Vikas left school when he was just nine, but is now a motivator for other boys who have left ragpicking and who study through the Open School System. Today, Vikas, who is a Class VII student, is the pride of the Centre and Manjula has been a part of his journey all through. She has been convincing the parents of these children to understand their evolution from being a child labourer to a teenager who can acquire skills for a better life.

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6. Aslam for instance, who giggled as the boys tried to pronounce Mother's Day, knew the words
'Mom' and 'Dad' having watched T.V. serials and Hindi films. According to him : "l keep running away from home and fight with my Mom. But on Mother's Day, when I go back, I will not fight and stay with her." The traumatic life stories related by these children become a self-explanation for their aggressive behaviour and their suppressed feelings.
(A) Answer the following questions in about $30-40$ words :
(a) What was special about the gathering at the rain-swept shelter?
(b) What were the ragpickers' reactions to Mother's Day ?
(c) How did the children celebrate the day at the Chetna premises?
(d) Why is Vikas' case inspiring for the ragpickers ?
(B) Do as directed :
(a) When one is out in the scorching sun, it means the day is $\qquad$ .
(i) cool
(ii) rainy
(iii) very hot
(iv) very dry
(b) The ragpickers had understood about Mother's Day when Manjula told them what it $\qquad$ .
(i) signified
(ii) promised
(iii) gifted
(iv) created
(c) When one hankers for something better, it becomes $\qquad$
(i) an emotional moment
(ii) a dream moment
(iii) an aspiration
(iv) traumatic life story
(d) A term in the passage which means the same as 'compelling' $\qquad$ .
(i) convincing
(ii) scorching
(iii) understanding
(iv) pronouncing

## Section - B (Writing and Grammar)

a) In most Indian families, particularly in rural areas, the girl child is considered inferior to the male child. As a result of this bias, a daughter is considered a burden and she suffers discrimination in the matter of food, freedom, health and education. Write an article in 100-150 words showing how such an attitude is harmful and unjust. You are Satyen/Sunidhi. (Also give a suitable title.)

## OR

b) Recently you got a chance to attend a workshop on " Advantages and Disadvantages of technology in our lives ". Write a diary entry in 100 to 150 words recounting your experience about the same and how you feel that today's tech savvy environment has become a necessary evil. You cannot do without it , even if you think of doing without it and how it has created many problems for today's youth.

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4. a) Given below is the beginning of the story. Complete it in about 150 to 200 words. Give it a

Alok was travelling by train. Suddenly the train stopped and some strange looking men entered the compartment and.

## OR

b) Complete the following story in about 150 to 200 words with the help of the input given below.

Also give a suitable title.
Merchant riding home from fair..... always negative thinking......had earned lot of money......sudden rainfall......money got wet........ cursed God....... Attack by Robbers......got fired at..... but due to wet gunpowder it did not hit.........save life....... Thanked God for rain....... Realised whatever happens, happens for good.
5. Fill in the blanks (any four )with correct form of the verb given in bracket.
a) The jury $\qquad$ (was/were) divided in their opinion.
b) Five kilometers $\qquad$ (is/are) a long distance to walk.
c) Neither the Guru nor his disciples ___ (require/requires ) help.
d)The teachers along with the Principal $\qquad$ (has/have)agreed to the proposal.
e)One third of the project $\qquad$ ( need/needs) to be reviewed again.
6. Read the dialogue given below and then complete the passage that follows:

Electrician : when did your electricity go ?
Mohan : It is not working since yesterday.
Electrician : Sorry sir ,in this case I will have to check the fuse now.
Mohan : Please solve this problem.
The electrician asked Mohan a) $\qquad$ . Mohan replied that
b) $\qquad$ . The electrician apologetically said that c) $\qquad$ .
Mohan requested him d) $\qquad$ .
7. The following passage has not been edited. There is one error in each line. Write the incorrect word and correction against each line. Attempt any four.

Incorrect
Correct
a) spending time in your kids
b) bring immediate as well as long
c) term gain with the parents.
d) According to a research, children of a
e) involved parent were more efficient and get along better with their peers.

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8. Read the extract and answer the questions that follow:
(a) No,

The root is to be pulled out-
Out of the anchoring earth;
It is to be roped, tied,
And pulled out-snapped out
Or pulled out entirely,

## Questions:

i)What should we do to kill a tree entirely?
ii) What is the main anchor of the trees?
iii) Where does the strength of a tree lie?
iv)What should we do to its roots?

## OR

(b) Thanks a lot. You will soon stop being smart. I'll make you crawl. I want to know about few things, see.
(i) Who is the speaker of the above lines?
(ii) How was the speaker's mood ?
(iii) Why did he want to know a few things?
(iv) Gerrard is threatening the intruder that he will make him crawl. ( True/false)
9. Answer the following questions in about 30 to 40 words. (Attempt any 3 out of 4 from Beehive and any 2 out of 3 from Moments )
a) What message does the poem ' A slumber Did My Spirit Seal ' convey ?
b) Who were APJ Abdul Kalam's childhood friends? What did they do?
c) How did Olga help Lushkoff transform himself ?
d) What incidents during the Everest expedition show Santosh's concern for her team mates ?
e) Innisfree is described as a simple ,natural place, full of beauty and peace. How does the poet contrast it with where he actually was ?
f) Who was Berhman ? What was his masterpiece?
g) Why did Prashant oppose the government's proposal to set up institutions ?What did he suggest ?Why?
10. Answer any one of the following questions in 100 to 150 words.
a) "Animals also feel the pleasure of love and the pain of separation." Explain this statement by giving example from the chapter "The Bond of Love."

## OR

b) Compare and contrast the atmosphere in and around the Baudhnath shrine with that of the Pashupatinath temple.
11. Answer any one of the following questions in 100 to 150 words.
a) Write the character sketch of Iswaran.

## OR

b)Why did Bill Bryson call himself an Accidental Tourist ? Give reasons to support your answer?

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## DELHI PUBLIC SCHOOL

Subject:- Science<br>M.M.-80

## General Instructions:-

1. The question paper comprises three sections - A, B and C. Attempt all the sections.
2. All questions are compulsory.
3. Internal choice is given in each section.
4. All questions in Section A are one-mark questions comprising MCQ, VSA type and assertion-reason type questions. They are to be answered in one word or in one sentence.
5. All questions in Section B are three-mark, short-answer type questions. These are to be answered in about 50-60 words each.
6. All questions in Section $C$ are five-mark, long-answer type questions.

These are to be answered in about 80-90 words each.
7. This question paper consists of a total of 30 questions.

## Section -A

1. Why does the temperature of a substance remains constant during the change of state ?
2. Which gas is called dry ice ? Why ?
3. Honey is dense sweet liquid which contains $20-40 \%$ sugar, small amount of minerals, vitamins, certain enzymes and pollen. It has medicinal value specially in problems related to digestion and live. The quality of honey depends upon the pasturage or flowers available to the bees for nectar and pollen collection. Since bee keeping needs low investments, farmers use it as an additional source of income. An Italian bee variety Apis mellifera has been introduced in India to increase honey production.
3.1 What is the composition of honey?
3.2 How is pasturage related to honey production?
3.3 Which bee variety has increased the honey production in India?
3.4 Mention any other advantage of bee keeping.
4. Syndrome is a group of symptoms, sign physical and physiological disturbances that are due to a common cause.
AIDS is also a complex of diseases and symptoms. It develops due to the failure of body to fight against even minor infections, such as cold. HIV that causes AIDS damages immune systems of the patient. As a result, even small cold leads to the development of pneumonia. A slight gut infection leads to severe diarrhoea and blood loss, skin rashes develop into ulcers. Thus it leads to a group of symptoms.
4.1 What is a syndrome?
4.2 Name the pathogen that causes AIDS
4.3 Is AIDS considered as a syndrome or a disease ?
4.4 Mention two modes of spread of this disease.
5. Match the following with correct response:

| Column A |  |  |  | Column B |
| :---: | :---: | :---: | :---: | :---: |
| 1. Velocity affects |  |  |  | A. Energy |
| 2. Maximum work done |  |  |  | B. $90^{\circ}$ |
| 3. Work done is zero |  |  |  | C. $\mathrm{O}^{\circ}$ |
| 4. Work done, when force act obliquely |  |  |  | D. FS $\operatorname{Cos} \theta$ |
| (a) 1-D | $2-\mathrm{A}$ | 3-C | 4-B |  |
| (b) $1-\mathrm{A}$ | $2-\mathrm{C}$ | 3 - B | 4 -D |  |
| (c) $1-\mathrm{A}$ | 2-D | $3-\mathrm{C}$ | 4-B |  |
| (d) $1-\mathrm{C}$ | 2-B | $3-\mathrm{D}$ | 4-A |  |

6. The heart does 1.5 J of work in each heartbeat. How many times per minute does it beat if its power is 2 watt?
(a) 80 times
(b) 60 times
(c) 8 tomes
(d) 10 times

## OR

A machine does 192 of work in 24 sec . What is the power of the machine?
(a) 18 W
(b) 4 W
(c) 0 W
(d) 8 W
7. Earthquake produces which kind of sound before the main shock wave begins:
(a) Ultrasound
(b) infrasound
(c) audible sound
(d) None of these
8. During summer, water kept in an earthen pot becomes cool because of the phenomenon of
(a) diffusion
(b)transpiration
(c) osmosis
(d) evaporation

## OR

Which condition out of the following will increase the evaporation of water?
(a) Increase in temperature of water
(b) less exposed surface area of water
(c) Decrease in temperature of water
(d) Adding common salt to water
9. Choose the correct statement of the following:
(a) Conversion of solid into vapours without passing through the liquid state is called vaporization.
(b) Conversion of vapours into solid without passing through the liquid state is called deposition.
(c) Conversion of vapours into solid without passing through the liquid state is called freezing.
(d) Conversion of solid into liquid is called sublimation.
10. The size of the colloidal particles is in the range of
(a) $1 \mathrm{~A}^{0}$ to $100 \mathrm{~A}^{0}$
(b) 1 nm to 100 nm
(c) $10^{-9} \mathrm{~m}$ to $10^{-6} \mathrm{~m}$
(d) $10^{-9} \mathrm{~cm}$ to $10^{-7} \mathrm{~cm}$
11. Which of the following is not a compound ?
(a) Sulphur dioxide
(b) Chalk
(c) Lead
(d) Sulphuric acid
12. The mass of one atom of carbon - 12 is
(a) 1 g
(b) $1.99 \times 10^{-23} \mathrm{~g}$
(c) $1 / 12 \mathrm{~g}$
(d) $1.99 \times 10^{23} g$

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OR
Which of the following contains maximum number of molecules? (atomic mass of $\mathrm{C}=12 \mathrm{u}, \mathrm{O}=16 \mathrm{u}, \mathrm{N}=14 \mathrm{u}, \mathrm{H}=1 \mathrm{U}$ )
(a) $1 \mathrm{~g} \mathrm{CO}_{2}$
(b) $1 \mathrm{~g} \mathrm{~N} \mathrm{~N}_{2}$
(c) $1 \mathrm{~g} \mathrm{H}_{2}$
(d) $1 \mathrm{~g} \mathrm{CH}_{4}$

Directions:-The following questions No. 13. And 14 consist of two statements Assertion (A) and Reason ( R ).Answer these questions selecting the appropriate option given below :
( a ) Both A and R are true and R is the correct explanation of A
( $b$ ) Both $A$ and $R$ are true but $R$ is not the correct explanation of $A$
(c) A is true but $R$ is false
(d) A is false but $R$ is true
(e) Both A and R are false
13. Assertion: (A) The valency of aluminium is 3 and oxygen is 2 .

Reason: ( R ) The chemical formula of aluminium oxide is $\mathrm{Al}_{3} \mathrm{O}_{2}$
14. Assertion: - During a thunderstorm, one observes lightning first and then hears the thunder though both occur simultaneously.
Reason: Light travels faster than sound.

## Section - B

15. Calculate the mass of sodium sulphate required to prepare its $20 \%$ ( mass percent) solution in 100 g of water.
16. (a) What are isobars ? Give examples .
(b) Atomic number of an element $Y$ is 17
(i) Write its electronic configuration .
(ii) What is the number of valence electrons in Y ?
( iii ) How many electrons are needed to complete the octet of Y ?
(iv) Is it a metal or non- metal ?

## OR

State the major drawback in Rutherfords model of an atom. Mention two features of Bohrs model which helped in compensation of this drawback .
17. (a) How is carbon dioxide fixed ?
(b) How are the nitrogen molecules present in air converted into nitrates and nitrites.
18. a) How are simple tissues different from complex tissues?
b) What happens to the plants if their tips are removed?

## OR

a) How are cork cells formed ? Mention one function of cork.
b) Which substance is present in the adipocytes? How does it help the living organism.
19. Give a scientific reason for the following.
a) Mitochondria can make their proteins.
b) Inner membrane of mitochondria is deeply folded.
c) Gametes have half the member of chromosomes than that present in the gamete mother cells.
20. Whales and fishes are not grouped together. Explain why? (Give three points).
21. a) Draw labelled diagrams of three types of muscle fibers
b) How is movement caused in tissue
22. Derive the following equations of motion (graphically):
(a) $v=u+a t$
(b) $s=u t+\frac{1}{2} a t^{2}$
(c) $v^{2}-u^{2}=2 \mathrm{as}$
23. (a) State the second law of motion. Describe the mathematical formulation of second law of motion.
(b) A force acts on a body of mass 5 kg and changes its velocity form $8 \mathrm{~m} / \mathrm{s}$ to $12 \mathrm{~m} / \mathrm{s}$ in 4 sec , then find the magnitude of force.

## OR

(i) State and prove the law of conservation of linear momentum.
(ii) From a rifle of mass 4 kg , a bullet of mass 50 g is fired with an initial velocity of $35 \mathrm{~m} / \mathrm{s}$. Calculate the initial velocity of the rifle.
24. (a) Write the statement of Newton's law of Gravitation. Derive the formula of acceleration due to gravity at the surface of the earth.
(b) Two immiscible liquids of densities and 2 are put in a container. The height of each liquid is $h$. A solid cylinder of length $l$ and density $d$ is put in this container, the cylinder floats with its vertical axis and length $0.5 l$ in the denser liquid.

Estimate the value of d.

## Section-C

25. (a) State six postulates of Dalton's atomic theory. $[3+2=5]$
(b) How many grams of sodium will have the same number of atoms as 6 grams of magnesium.
(Atomic mass of $\mathrm{Na}=23 \mathrm{u}, \mathrm{Mg}=24 \mathrm{u}$ )

## OR

(a) Define polyatomic ions. Give an example .
(b) State the law of constant proportions.
(c) Calcium chloride when dissolved in water dissociates into ions according to the following equation

$$
\mathrm{CaCl}_{2}(\mathrm{aq})---------\rightarrow \mathrm{Ca}^{2+}+2 \mathrm{Cl}^{-}(\mathrm{aq})
$$

Calculate the number of ions obtained from $\mathrm{CaCl}_{2}$ when 222 g of it is dissolved in water.
(atomic mass of $\mathrm{Ca}=40 \mathrm{u}, \mathrm{Cl}=35.5 \mathrm{u}$ )
26. (a) Give reasons :
(i) Isotopes of an element are chemically similar .
(ii) An atom is electrically neutral .
(iii ) Noble gases show least reactivity .
(iv ) Ions are more stable than atoms .

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\text { Pg- } 4 \text { of } 5
$$

(b) The element Boron occurs in nature as two isotopes having atomic masses 10 u and 11 u . What are the percentage abundances of these isotopes in a sample of boron having average atomic mass of 10.8 u .
27. (i) Name two air - borne diseases. How does the disease causing microbes spread through air?
(ii) How is symptom based treatment different from microbe based treatment (Three points)
28. Name the five classes of vertebrates and compare them on the basis of
a) Habitat
b) Covering of skin
c) Respiratory organs
d) Chambers of heart

## OR

[5]

State the reasons for each of the following
a) Echidna and platypus lay eggs, but are considered as mammals.
b) Crocodiles have four chambered heart but are still reptiles.
c) Forelimbs of birds are modified.
d) Prawns are placed in Phylum Arthropoda.
29. (a) State and prove the law of conservation of energy.
(b) A battery lights a bulb. Describe the energy changes involved in the process.
(c) Establish the relation $\mathrm{b} / \mathrm{w}$ kinetic energy and linear momentum.
(d) Calculate the electricity bill amount for a month of April, if 4 bulbs of 40 watt each for 5 hour, 4 tube lights of 60 watt each for 5 hour , a washing machine of 400 watt for 3 hour are used per day. The cost per unit is Rs. 8 .
30. (a) Draw a labelled diagram of reflection of sound and discuss the function of its parts and their working.
(b) A person produced a sound with a siren near a cliff and heard echoes after 6 second. Find the distance of the siren from the cliff, if velocity of sound waves produced is $330 \mathrm{~ms}^{-1}$ ?
(c) How cracks or flaws can be detected in a metal forgins? Explain.

## OR

(i) Define the following terms:
(a) Wavelength
(b) Amplitude
(c) Frequency
(ii) Why sound board is fitted on the back of the stage in a big Hall?
(iii) A stone is dropped from the top of tower 500 m high into a pond of water at the base of the tower. When is the splash head at the top?
Given $\mathrm{g}=10 \mathrm{~m} / \mathrm{s}^{2}$ and speed of sound $=340 \mathrm{~m} / \mathrm{s}$.

$$
\text { Pg- } 5 \text { of } 5
$$

# दिल्ली पब्लिक स्कूल, राँची वार्षिक परीक्षा (2019-20) 

कक्षा- नौ<br>समय- 3 घंटे

विषय-हिन्दी
पूर्णांक-80

सामान्य निर्देश:-
i) इस प्रश्न-पत्र में चार खंड हैं- क, ख, ग, और घ।
ii) चारों खंडों के प्रश्नों के उत्तर देना अनिवार्य हैं।
iii) यथासंभव प्रत्येक खंड के उत्तर यथाक्रम दें।

## 'खण्ड - क'

प्रश्न 1. निम्नलिखित गद्यांश को ध्यानपूर्वक पढ़कर पूछे गए प्रश्नों के उत्तर लिखें-
सहिष्णुता एक आवश्यक शील है, जिसे सहनशीलता की संज्ञा दी गई है। यह एक ऐसा गुण है, जिसके लिए अभ्यास करना पड़ता है। वंशानुक्रम से सहिष्णुता उत्तराधिकार में मिल सकती है, लेकिन वातावरण और परिवेश की प्रतिकूलता में इसको सिंचित न किया गया तो इसके अंकुर सूख जाते हैं। सहिष्णुता परिवेश से प्रारंभ होती है। ऐसा बहुत कुछ होता है, जो परिवार से अनुकूल नहीं मिलता। तब अपनी इच्छाओं और मन को मारकर गुजर - बसर करनी पड़ती है। निर्धनता जैसे परिवेश में सहिष्णुता कठिन परीक्षाएं लेती है और इसका अंत जल्दी नहीं होता। विद्यार्थी को अपने लिए पुस्तकें जुटानी पड़ सकती है और मांगकर लाई गई पुस्तकें वापस सही सलामत न लौटाने की सजा, एक दो दिनों तक बिना पारिश्रमिक लिए खेतों में मजदूरी करने की लाचारी भी झेलनी पड़ती है। रात्रि में ही पढ़ने के लिए समय निकालना पड़ता है।

समाज के अपने नियम है, अपनी परंपराएँ हैं और सहिष्णुता न सहें तो क्या करें? संत ज्ञानेश्वर को अपने पिता की गलती का प्रायश्चित करना पड़ा। किसी ने उसको भीख तक न दी। भला इसमें ज्ञानेश्वर का क्या अपराध था कि उनके पिता संन्यास त्यागकर गृहस्थ बन गए थे, लेकिन ज्ञानेश्वर ने अपनी सहिष्णुता से पूरे समाज की अवमानना सही और 'ज्ञानेश्वरों' का 'गीतामृत' प्रतिदान में दिया। उन्होंने सहिष्णुता की सीढ़ी में सफलता पाई।

क) सहिष्णुता के अंकुर कब सूखने लगते हैं?
ख) सहिष्णुता की सबसे कठिन परीक्षा क्या होती है?
ग) समाज ने संत ज्ञानेश्वर की अवमानना क्यों की?
घ) गद्यांश का एक उचित शीर्षक लिखें और उसके चुनाव का कारण भी बताएँ।
ड) संत ज्ञानेश्वर ने पूरे समाज की अवमानना सहकर समाज को क्या दिया?

## Pg-1 of 4

प्रश्न 2. निम्नलिखित काव्यांश को ध्यानपूर्वक पढ़कर दिए गए प्रश्नों के उत्तर लिखिए-
उठो वीर मजदूर किसानों, आज जमीं को प्यार चाहिए।
बढ़ो कर्म पर ले उमंग, अब धरती को मनुहार चाहिए।।
मेहनत करने की ठानी तो
हर तूफाँ हट जाएगा
बनकर फिर तकदीर देश की
स्वर्णिम दिन आ जाएगा
भारत माँ की आन-बान हो
मातृभूमि की शान तुम्हीं हो
हो भविष्य भारत विशाल के
मातृभूमि की जान तुम्हीं हो
महल त्याग, श्रृंगार त्याग कर
श्रम का दान करो तन-मन से
बंजर धरती तोड़-तोड़ कर
कर आज आबाद लगन से
शपथ आज जो मातृभूमि की
श्रम से पग न डिगाना है
देश हमारा एक बाग है
इसको खूब सजाना है
खून पसीना एक करेंगे
अधिक अन्न उपजाएंगे हम
यही हमारा लक्ष्य रहा
अब पग पीछे न हटाएंगे
फिर देखो भारत भविष्य
कितना सुंदर बन जाएगा
अमन और सुख-चैन पताका
जन-जन में लहराएगा
भारत मां के उत्थान हेतु, अब धरती को श्रृंगार चाहिए।
उठो वीर मजदूर किसानों, आज जमीं को प्यार चाहिए।
क) देश के स्वर्णिम दिन कैसे आएंगे?
ख) काव्यांश में कवि ने मातृभूमि की आन, बान और शान किसे कहा गया है और क्यों? [2]
ग) हम सभी देश रुपी बाग को किस तरह सजाएंगे?
(खण्ड - ख)

प्रश्न 3. निर्देशानुसार उत्तर दीजिए :-
क) वर्ण-विच्छेद करें-
कृतघ्नता, अभिव्यक्ति
ख) उचित स्थान पर अनुस्वार का प्रयोग करें :अहकार, सध्या

$$
\begin{equation*}
\mathrm{Pg}-2 \text { of } 4 \tag{1}
\end{equation*}
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ग) उचित स्थान पर अनुनासिक का प्रयोग करें :सवारना, आख
घ) उचित स्थान पर नुक्ता का प्रयोग करें :तूफान, मजदूर
प्रश्न 4. क) संधि-विच्छेद कीजिए :-
चिकित्सालय, अनूदित
ख) संधि कीजिए :-
सत्य + आनंद, सत् + गति
प्रश्न 5. निम्नलिखित शब्दों में प्रयुक्त उपसर्ग, प्रत्यय और मूल शब्द को अलग-अलग कीजिए।अभिनंदन, कुख्यात, बिकाऊ, स्मरणीय
प्रश्न 6. निम्नलिखित वाक्यों में विराम चिन्ह लगाकर पुनः लिखिए :-
क) कठिन परिश्रम करो परीक्षा निकट है
ख) अरे तुम यहाँ कैसे
ग) मोहन मैं तुम्हारे साथ चलूंगा
(खण्ड - 'ग')
प्रश्न 7. निम्नलिखित प्रश्नों के उत्तर लिखें :-
क) आनेवाला समय किस प्रकार के धर्म को टिकने नहीं देगा? 'धर्म की आड़' पाठ के आधार पर लिखें।

ख) लेखक बूढ़ी र्त्री के रोने का कारण क्यों नहीं जान पाया?
ग) लोपसांग ने तंबू का रास्ता कैसे साफ किया?
प्रश्न 8. 'देश और दुनिया को मुग्ध करके शुक्रतारे की तरह ही अचानक अस्त हो गए।' 'शुक्रतारे के समान' पाठ के आधार पर इस पंक्ति की व्याख्या कीजिए।

प्रश्न 9. निम्नलिखित प्रश्नों के उत्तर लिखें :-
क) 'आदमीनामा' कविता पढ़कर आपके मन में मनुष्य के प्रति क्या धारणा बनती है?
ख) 'एक पत्र छाँह भी मांग मत' पंक्ति का भाव स्पष्ट करें।
ग) 'खुशबू रचते हैं हाथ' कविता में बहुबचन का प्रयोग क्यों किया गया है?
प्रश्न 10. 'एक फूल की चाह' कविता का प्रतिपाद्य लिखें।
प्रश्न 11. क) यह धर्मयात्रा है। चलकर पूरी करुंगा। गांधीजी के इस कथन का तात्पर्य क्या है? ख)हामिद खां ने खाने का पैसा लेने से इंकार क्यों कर दिया।

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\mathrm{Pg}-3 \text { of } 4
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प्रश्न 12 निम्नलिखित में से किसी एक विषय पर दिए गए संकेत बिन्दुओं के आधार पर
100-120 शब्दों का अनुच्छेद लिखें -
अ) युवा वर्ग में भटकाव

- युवा वर्ग के सामाजिक-सांस्कृतिक मूल्यों मे गिरावट
- युवा वर्ग में निराशा
- युवा वर्ग ही देश के भावी कर्णधार

ब) प्रतियोगिता से लाभ

- प्रतियोगिता का अर्थ
- प्रतियोगिता का जीवन में महत्त्व
- लक्ष्य प्राप्ति का साधन

स) प्रकृति की रक्षा, मानव की सुरक्षा

- मनुष्य प्रकृति का अंग
- प्रकृति से खिलवाड़
- प्रकृति की रक्षा मानव जाति का कर्तव्य

प्रश्न 13. जीवन में स्वच्छता का महत्त्व बताते हुए अपने छोटे भाई को पत्र लिखें।
अथवा
परीक्षा में असफल होने वाले मित्र को पुनः अध्ययन के लिए प्रेरित करते हुए पत्र लिखें।
प्रश्न 14. बढ़ते प्रदूषण से परेशान दो मित्रों के बीच होने वाले संवाद को 50 शब्दों में लिखें।
अथवा
'इंटरनेट के सदुपयोग' विषय पर पिता और पुत्र के बीच संवाद को 50 शब्दों में लिखें।
प्रश्न 15. एक साईकिल कंपनी के लिए 25-50 शब्दों में एक विज्ञापन तैयार करें।
प्रश्न 16. दिए गए चित्र को ध्यान से देखकर चित्र के संबंध में अपने विचारों को लिखें।


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\text { Pg - } 4 \text { of } 4
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कक्षा- नवमी
समय- 3 घंटे

विषय-संस्कृतम्
पूर्णांक-80

| खण्ड - क | अपठितांश - अवबोधनम् | 10 अंक |
| :--- | :--- | :--- |
| खण्ड - ख | रचनात्मक कार्यम् | 15 अंक |
| खण्ड - ग | अनुप्रयुक्त व्याकरणम् | 25 अंक |
| खण्ड - घ | पठित - व्याकरणम् | 30 अंक |

1. गद्यांशं पठित्वा प्रश्नानाम् उत्तराणि लिखत -

एकः व्यापारी व्यापारार्थं उष्ट्रेण गच्छतिस्म। यदा स मरूभूमिं प्राप्तः, तदा सः मार्गभ्रष्टः अभवत्। सः इतस्ततः अभ्रमत परन्तु मार्गं न अलभत्। दश दिनानि व्यतीतानि। आहारः समाप्तः जातः।जलमपि समाप्तम्। उष्ट्रस्य अपि दीनदशा अभवत्। व्याकुलः भूत्वा सः दैवं प्रार्थितवान् - भगवन्। मह्यम् आहारः दीयताम्, जलं दीयताम्, परन्तु कोऽपि परिणामः न जातः। अन्ते उष्ट्र: अपि विकलः भूत्वा भूमौ पतितः। व्यापारिणः मुखात् प्रार्थना निःसृता-भगवन्। एतस्य सत्वस्य रक्षां कुरू। अस्य क: दोष:? मत्कृते एषः प्राणान् त्यजति तदैव व्यापारिणा दूरे गर्त्ते जलं दृष्टम्। व्यापारी जलम्, आनयति, प्रथमम् उष्ट्राय ददाति, ततः स्वयं पिबति। समीपे खर्जूरफलानि अपि आसन्। तदैव देववाणी अभवत् - यः परहितं चिन्तयति तस्य एव देवाः सहायतां कुर्वन्ति।
I. एकपदेन उत्तरत
(i) यः परहितं चिन्तयति, के तस्य सहायतां कुर्वन्ति?
(ii) मरूभूमौ कस्य दीनदशा अभवत्?
(iii) दूरे गर्त्ते किं दृष्टम्?
(iv) व्यापारी कुत्र मार्गभ्रष्टः अभवत्?
II. पूर्णवाक्येन उत्तरत
(i) व्याकुलः व्यापारी ईश्वरं प्रति कां प्रार्थनां करोति?
(ii) उष्ट्रस्य मरूभूमौ दीनदशा किमर्थं जाता?
III. निर्देशानुसारम् उत्तरत -
(i) 'अलभत्' इति क्रियापदस्य कर्तृपदम् किम?
(ii) प्रारम्भे इति पदस्य किं विलोमपदम् अत्र प्रयुक्तम्?
(iii) 'अस्य क: दोष:' अत्र 'अस्य' इति सर्वनामपदं कस्मै प्रयुक्त्म्?
(iv) अस्य अनुच्छेदस्य कृते उपयुक्तं शीर्षक लिखत।

> खण्ड: ‘ख’ (रचनात्मक— कार्यक्रम)

पितरं प्रति अधोलिखितं पत्रं मजूषाप्रदत्तषब्दैः पूरयित्वा पुनः लिखत

कावेरी छात्रावासतः
राजकीय विद्यालयः
$\operatorname{Pg}-1$ of 7

माननीयाः पितृवर्या:
(ii).

प्रणमामि ।
भवतः पत्रं प्राप्तम्। मम (iii)............ परीक्षा समाप्ता। परीक्षापत्राणि अतिशोभनानि जातानि। यावत् परीक्षा परिणामः न आगच्छति तावत् अगामि मासस्य प्रथम सप्ताहे (iv).......... विद्यालयस्य अध्यापिकाः अर्मान् शैक्षिकभ्रमणाय (v) ............. नेष्यन्ति। अहम् अपि ताभिः (vi)................ गन्तुम् इच्छामि। एतदर्थम् मया कक्षाध्यापिकायै (vii).... रूप्यकाणि दातव्यामि सन्ति। अतः यदि अनुमतिः (viii).............. तर्हि अहमपि गच्छेयम्। ज्ञानवर्धनाय एतत् अतिरिच्य अन्यत् अवसरं न पष्यामि। अतः कृपया उपर्युक्तं राषिं प्रेषयित्वा माम् अनुगृहीतां कुर्वन्तु

सर्वेश्यः मम (ix)............. निवेदनीयाः।
भवतां प्रिया (x).......
सुकन्या
प्रणामाः, सह, कोलकातातः, स्यात्, पञ्चाशत्, भुवनेश्वरम् द्वितीयसत्रीया, मम, पुत्री, सादरम्

3 प्रदत्तं चित्रं दृष्ट्वा मजूषायां प्रदत्तशब्दानां सहायतया पञ्च वाक्यानि संस्कृतेन लिखत


मजूषा
बालः, पश्यतः, दोलायाम्, वृक्षः, पादपाः, पत्राणि, हरितः खगाः, पश्यन्ति, पुष्पे

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## अथवा

'जलप्रदूषणम्' इति विषयम् अधिकृत्य पच्वाक्यनि संस्कृतेन लिखत मजूषा
अवकरं, नदीषु, कार्यशालाभ्यः, दूषितम् क्षिपन्ति नलिकामार्गेण, जायन्ते, वस्त्राणि, रोगा:
रूग्णाः क्षालयन्ति, भवन्ति, मलम्, पूजा सामग्री
4. संस्कृत भाषायाम् अनुवादं कुरूत
$(1 \times 5=5)$
(i) सैनिक देश की रक्षा करेगें।
(ii) छात्रों को ध्यान से पढ़ना चाहिए।
(iii) शिक्षक ने छात्र से प्रश्न पूछा।
(iv) उसने मुझे फल दिया।
(v) मेरा भाई जयपुर में रहता है।

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\text { खण्ड — ग (अनुप्रयुक्त व्याकरणम्) } 25 \text { अंकाः }
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5. अधोलिखितेषु वाक्येषु रेखांकित पदानि समुचितं सन्धिं विच्छेदं वा कुरूत
(i) परोपकारः पुण्याय भवति।
(ii) भू+उर्जा अतिविषाला अकल्पनीया च।
(iii) श्लोकस्य अन्वयः करणीयः।
(iv) गुरौ+ आगते छात्राः तूष्पीम् अभवन्।
6. प्रदत्तविकल्पेभ्यः समुचितैः पदैः रिक्त स्थानानि पूरयित्वा वाक्यानि पुनः लिखत
(i) रजक: $\qquad$ वस्त्राणि क्षालयति।
(क) नदीम्, (ख) नद्याः (ग) नद्याम् (घ) नद्या
(ii) $\qquad$ आज्ञाकारी पुत्रः क: भविष्यति ?
(क) पितृस्य, (ख) पितरम् (ग) पिता (घ) पितु:
(iii) भारतस्य $\qquad$ महिमां को न जानति ?
(क) संस्कृतेः, (ख) संस्कृतिम् (ग) संस्कृतिः (घ) संस्कृतौ
(iv) $\qquad$ मार्गे अनेकानि वसयानानि सन्ति।
(क) तत् (ख) तस्मिन् (ग) तस्याम् (घ) ते
7. प्रदत्त विकल्पेभ्यः समुचितैः धातुरूपैः रिक्त स्थानानि पूरयित्वा वाक्यानि पुनः लिखत
(i) पितरौ बालान् जन्तूशालां $\qquad$ ।
$\begin{array}{llll}\text { (क) नयेत् } & \text { (ख) नयेताम् } & \text { (ग) नयेः } & \text { (घ) नयत }\end{array}$
(ii) श्वः वयम् चलचित्रं $\qquad$ .
(क) अपश्यम् (ख) अपश्याम् (ग) द्रक्ष्याम: (घ) पश्याम:
(iii) सर्वे निरामया: $\qquad$ .
(क) सन्तु (ख) स्यात् (ग) अस्तु (घ) अस्ति
(iv) ये परिश्रम कुर्वन्ति ते सफलता $\qquad$
(क) लफ्येत
(ख) लप्स्यन्ते
(ग) लप्स्ये
(घ) लप्स्यते
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8 प्रदत्त विकल्पेम्यः उचित- उपपदविभक्तियुक्तैः पदैः रिक्त स्थानानि पूरयिावा वाक्यानि पुनः लिखत
(i) $\qquad$ निकषा आम्रवृक्षाः सन्ति।
(क) वाटिकाम्
(ख) वाटिकाया:
(ग) वाटिकया
(घ) वाटिकायाम्
(ii) इयं गंगानदी। अलम्
(क) अवकरक्षेपणम्
(ख) अवकरक्षेपणेन
(ग) अवकरक्षेपणात्
(घ) अवकरक्षेयणाय
(iii) पिता $\qquad$ स्निहयति।
(क) सुतया
(ख) सुतायाः
(ग) सुतायाम्
(घ) सुताम्
(iv) अधः क्रीडनकम् अस्ति।
(क) काष्ठफलकस्य
(ख) काष्ठफलकेन
(ग) काष्ठफलकाय
(घ) काष्ठफलके
9. रेखांकितपदानां प्रकृति प्रत्ययोः संयोजनं विभाजनं वा कृत्वा प्रदत्त विकल्पेय्यः समुचितं उत्तरं चित्वा वाक्यानि पुनः लिखत
(i) वयं भोगान् भुज्+तुमुन् न समर्थाः।
(क) भोजितुम्
(ख) भुजतुम्
(ग) भोक्तुम
(ii) वाठम् उपेत्य जयतु आर्यः।
(क) उप+इ+ल्यप् (ख) उपेत्+ ल्यप् (ग) उप+इ+क्त्वा
(iii) याच्शानचु मिक्षुकेम्यः भोजनं यच्छ।
(क) याचमानेन
(ख) याचमानम्
(ग) याचमानेम्यः
(iv) उद्याने क्रीड़+शतृ बालिकाः प्रसीदन्ति।
$\begin{array}{ll}\text { (क) क्रीडन्ती (ख) क्रीडन् } & \text { (ग) क्रीडन्त्य: }\end{array}$
अद्योलिखितेषु वाक्येषु प्रदत्त- अंकानां स्थाने समुचितैः संस्कृत संख्या वाचक शब्दरूपैः रिक्त स्थानानि पूरयित्वा वाक्यानि पुनः लिखत
(i) नासिकायाम्
(2) छिद्रे स्तः।
(ii) $\qquad$ (79) अश्वाः धावन्ति।
(iii)
(4) खगेषु परम्परं मैत्री आसीत्।

अद्योलिखितेषु पदेषु उपसर्गपदं चित्वा लिखत
(i) अनुकरोति
(ii) उन्नयति
(iii) परितुष्यति (vi) संस्करोति

खण्ड: घ (पठित अवबोधनम) 30 अंका:
12 प्रकृतिः सर्वेषां प्राणिनां रक्षणाय यतते इयं सर्वान् पुष्पति विविधैः प्रकारैः तर्पयति च सुखसाधनैः। पृथ्वी, जलं, तेजो वायुः आकाशः च अस्याः प्रमुखानि तत्वानि। तान्येव मिलित्वा पृथक्तया वाsस्माकं पर्यावरणं रचयन्ति आत्रियते परितः समन्तात् लोकोऽनेनेति पर्यावरणम् यथाऽजात शिशुः मातृगर्मे सुरक्षितः तिष्ठति तथैव मानवः पर्यावरणकुक्षौ। परिष्कृतं प्रदूषणरहितं च पर्यावरणमर्मभ्यं सांसारिकं जीवनसुखं, सद्विचारं, सत्यसंकल्प मांगलिक सामग्रीं च प्रददाति। प्रकृतिकोपै:, आतंकितो जनः किं कर्तुं प्रभवित, जलप्लावनैः, अग्निभयैः भूकम्पैः वात्याचक्रः उल्कापातादिभिश्च सन्तप्तस्य मानवस्य क्व मंगलम्

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(I) एकपदेन उत्तरत -
(i) सर्वेषां प्राणिनां रक्षणाय का यतते ?
(ii) पृथ्वी, जलं, वायुः आकाशः च कस्याः प्रमुखानि तत्वानि ?
(II) पूर्णवाक्येन उत्तरत
$(1 \times 2=2)$
(i) मानवः पर्यावरण कुक्षौ केन प्रकोरण सुरक्षितः तिष्ठति ?
(ii) प्रकृतिकोपैः जनः कथम् आतंकितः भवति ?
(III) यथानिर्देशम् उन्तरत
(i) इयं सर्वान् पुष्पाति अत्र 'इयं' पदं कस्यै प्रयुक्तम्?
(ii) 'शुद्धम्' इति पदस्य पर्याय पदं गद्यांशे किम् प्रयुक्तम् ?
(iii) 'प्रददाति' इति क्रियापदस्य कर्तृपदम् किम् ?
(iv) 'कुविचारम्' इति पदस्य विलोमपदं गद्यांशे किम् ?
13. अधोलिखितं श्लोकं पठित्वा प्रदत्त प्रश्नान् उत्तरत

निवर्तय मतिं नीचां परदारा भिमर्शनात्।
न तत्समाचरेद्धीरो यत्परोSस्य विगहर्येत्।।
(I) एकपदेन उत्तरत
(i) रावणः कस्याः अभिमर्शनात् निवर्तयतु ?
(ii) जटायुः रावणस्य मतिं कीदृशीं वदति ?
(II) पूर्णवाक्येन उत्तरत
(i) जटायुः रावणं किम् अवबोधयति ?
(ii) धीरः किं न समाचरेत् ?
(III) निर्देशानुसारम् उत्तरत
(i) 'यत्परोऽस्य विगर्हयेत्' अस्मिन् वाक्ये क्रियापदं किम् ?
(ii) 'स्त्री' इत्यर्थे अत्र किं पदं प्रयुक्त्म् ?
(iii) मतिं नीचां' अनयोः पदयोः विशेष्यपदं किम् ?
(iv) श्रेष्ठाम्' इति पदस्य किं विलोमपदम् अत्र प्रयुक्तम् ?
14. अद्योलिखितं नाट्यांशं पठित्वा प्रदत्त प्रश्नान् उत्तरतः-

पुरूष:- भोस्तपस्विन्। कथं मामुपरूणत्सि। प्रयत्नेन
किं न सिद्धं भवति ? कावश्यकता शिलानाम ?
सिकताभिरेव सेतुं करिष्यामि स्व सकंल्पदृढतया।
तपोदत्तः-आश्यर्चम्। सिकता भिरेव सेतुं करिष्यसि ?
सिकता जल प्रवाहे स्थास्यन्ति किम् ? भवता
चिन्तिनं न वा ?
पुरूषः (सोत्प्रासम्) चिन्तितं चिन्तितं। सम्यक् चिन्तितम्।
नाहं सोपानमार्गेरट्टमधिरोदुम् विश्वसिमि।
समुत्प्लुत्यैव गन्तुं शक्षोऽस्मि।

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तपोदत्तः (सव्यङ्गम्) साधु साधु। आजनेयमप्यतिक्रामसि।
पुरूषः- (सविमर्शम्)
कोऽत्र सन्देहः? किञ्च
विना लिप्यक्षरज्ञानं तपाभिरेव केवलम्।
यदि विद्या वशे स्युस्ते सेतुरेष तथा मम।।
I. एकपदेन उत्तरत
$(1 / 2 \times 2=1)$
(i) सर्वं कार्य केन सिद्धं भवति ?
(ii) सिकता कुत्र न स्थास्यति ?

II पूर्णवाक्येन उत्तरत
$(1 \times 2=2)$
(i) पुरूषः कर्मिन् न विश्वसिति ?
(ii) तपोदत्तः कथं विद्यां वशीकर्तुं प्रयतते ?

14 निर्देशानुसारम् उत्तरत
$(1 / 2 \times 4=2$
(i ) 'करिष्यति' इति क्रियापदस्य कर्तृपदम् किम् ?
(ii) 'हनुमन्तम्' इति पदस्य कृते अत्र किं पदं प्रयुक्तम् ?
(iii) 'सेतुरेष:' अत्र विशेषण पदं किम् ?
(iv) 'सफलम्' इत्यर्थे किं पदं प्रयुक्तम् ?
15. रेखांकित पदानि आधृत्य प्रश्ननिर्माणं कुरूत
(i) ग्रामे निर्धना स्त्री अवसत्।
(ii) सः कल्पतरवे न्यवेदयत्।
(iii) वित्ततः क्षीणः अक्षीणः भवति।
(iv) स: ज्ञातिजनैः गर्हितः अभवत्।
16. अद्योलिखितस्य श्लोकद्वयस्य अन्वयं उचितैः पदैः पूरयत
(क) गुणेष्वेव हि कर्तव्यः प्रयत्नः पुरूषैः सदा।
गुणयुक्तो दरिद्रोऽपि नेश्वरैरगुणेः समः।।
अन्वनः पुरूषैः सदा (i) ...............एव हि (ii) $\qquad$ कर्तवय:
दरिद्र: अपि (iii) $\qquad$ ईश्वरै: गुणैः (iv) $\qquad$ न भवति
(ख) न रूष्यन्ति मया क्षिप्ता हसन्तश्च क्षिपन्ति माम्।
दिष्ट्या गोग्रहणं स्वन्तं पितरौ येन दर्शिताः।।
अन्वनः क्षिप्ताः न (v) $\qquad$ मया (vi) $\qquad$
च माम् क्षिपन्ति। गोग्रहणं (vii) $\qquad$
स्वन्तं येन (viii) दर्शिताः।

## मजूषा

हसन्तः गुणयुक्तः, रूष्यन्ति, गुणेषु, पितरः प्रयत्न दृष्ट्या, सम:

श्लोकद्वयस्य मजूषायाः समुचित पदानि चित्वा भावार्थं पूरयत
(क) प्रियवाक्य प्रदानेन सर्वे तुष्यन्ति जन्तवः।
तस्मात् तदेव वक्तव्य वचने का दरिद्रता।
आचार्यः चाणक्यो वदति यत् अस्मिन् (i) $\qquad$ सर्वे देहधारिणः प्रियं (ii) $\qquad$ श्रुत्वा एव प्रसीदन्ति। अतः सर्वेः जनैः प्रयत्नेन सदैव तदेव प्रियं (iii) $\qquad$ वक्तव्यम। यतः वचनकथने काsपि दरिद्रता न आगच्छति अथवा कापि
(iv) $\qquad$ न भवति।
(ख) यत्र कुत्रापि गता भवेयुर्हंसा महीमण्डलमण्डनाय। हानिस्तु तेषां हि सरोवराणां येषां मरालैः सह विप्रयोगः।।

हंसा अर्थात् श्रेष्ठा:(v) $\qquad$ यत्र कुत्रापि स्थानेषु गच्छेयु: तेषां (vi) $\qquad$ .तेषां स्थानानां मण्डनं भवति परन्तु (vii) .................तु तेषां सरोवराणां स्थानाना वा भवति यैः सह तेषां हंसानां सज्जनानां वा (viii) $\qquad$ भवति। अतः सदैव सौभाग्यार्थ सज्ज्नानां संगति कुर्यात्।

मजूषा
हानिः, वचनं, विप्रयोग: संसारे, जनाः वाक्यं, गमनेन, दरिद्रता
17. अद्योलिखितवाक्यानि घटनाक्रमानुसारं पुनर्लिखत
$(1 / 2 \times 8=4)$
(क) गृहम् आगत्य यदा सा माजूषाम् उद्घाटयति तदा तर्मिन् एकं कृष्ण सर्पम् अपश्यत्।
(ख) हे नीचकाक। अहम आगता अस्मि, मह्यम् तण्डूलानां मूल्यं यच्छ।
(ग) तदनन्तरं सा लोभम् अत्यजत्।
(घ)तस्मिन् एवं ग्रामे एका लुब्धा वृद्धा अपि अवसत्।
(ड) गर्विता बालिका अवदत्- अहं स्वर्णमयेन सोपानेन एव आगमिष्यामि।
(च) लुब्धया कन्यया लोभस्य फलं प्राप्तम्।
(छ) तस्याः अपि एका ईर्ष्यालुः कन्या आसीत्
(ज) सूर्यातपे सापि तण्डुलान् निक्षिप्य स्वसुतां तेषां रक्षार्थ नियुक्तवती।
अधोलिखितानां पदानां पर्यायपदैः सह मेलनं कुरूत
( $1 / 2 \times 6=3$ )
(i) आर्षः सलज्जम्
(ii) शुच: उद्घाटितम्
(iii) तर्षिता असन्तुष्टा
(iv) सवैलक्ष्यम् कृषयः
(v) परिष्कृतम् शुद्धम्
(vi) उन्मीलितम् शोकंकुरू

# DELHI PUBLIC SCHOOL <br> SAIL TOWNSHIP, RANCHI <br> ANNUAL EXAMINATION (2019-2020) 

Class:-IX

Time- 3 Hrs.

Subject:- French<br>M.M.-80

## SECTION A - COMPREHENSION ECRITE <br> [10] <br> LES REPAS FRANCAIS

Les repas principaux the francais sont le petit dejuner et le diner. On prend le petit dejuner a 7 heures ou 8 heures du matin. On prend du pain ou des tartines avec de la confiture ou du beurre et on boit du the.les jeunes(18-24 ans) mangent des fruits et des cereales et boivant du lait et du jus de fruits.on dejeune a une heures ou deux heures de l'apres- midi. La plupart des travailleurs dejeunent au restaurant ou a la cantine l'entreprise. Les repas a la cantine sont meilleurs marches que ceux au restaurant. On prend le repas complet avec de la salade. Presque tout les francais dinent a 8 heures du soir. Le soir, les francais mangent plus legeremet qu'a midi. Au menu il mange de la soupe $t$ du fromage. Les adultes boivent souvent du vin aux repas.

1. Repondez aux questions suivants:
a) Qu'est-ce que les francais mangent le soir?
b) Qu'est-ce que les francais prennent le matin?
2. Dites vrai ou faux:
a) Le soir on prend le repas complet.
b) Le repas a la cantine n'est pas cher.
c) Les jeunes mangent des fruits et boivant du lait le matin $\qquad$
d) Le soir, les francais mangent plus legerement qu'a midi. $\qquad$
3. Trouvez dans le texte:
a) Le contraire de <donner>
b) Le contraire de < toujours>
c) Le contraire de < moin>
d) Le contraire de < soir>
4. Cochez la bonne reponse.
a) A 8 heures du matin on prend $\qquad$
(i) Le diner
(ii) Le gouter
(iii) Le petit dejuner
b) <Francais> c'est quoi?
(i) Un restaurant
(ii) Une nationalite
(iii) Une heure

SECTION B - EXPRESSION ECRITE

1. Ecrivez une lettre a votre ami en decrivant une fete indienne.
2. Vous arrivez en retard chez vous. Ecrivez un message et informant votre mere.
3. Ecrivez une recette indienne/francais de votre choix.
4. Completez avec les adjectifs demonstratives(ce/cet/cette/ces)
a) $\qquad$ professeur est nouveau.
b) $\qquad$ etudiant est chilien.
c) Nous habitons a cote de $\qquad$ gare.
d) Preferez- vous $\qquad$ restaurant?
e) Il achete $\qquad$ livre.
f) Tu regarde $\qquad$ robe.
5. Mettez les verbs aux temps cxonvenables:
a) Si ronald $\qquad$ (voyager) a paris, il pourra visiter le louvre.
b) Si tu n" as pas de stylo, $\qquad$ (prendre) ca.
c) Si elle avait de l'argent, elle $\qquad$ (faire) le tour du monde.
d) Si je $\qquad$ ( recevoir) ta lettre, je te repondrai tout de suite.
e) Situ m' $\qquad$ (appeler), je viendrai chez toi.
6. Completez le texte au passé compose.

L'apres-midi, nous ___ (monter) a la basilique notre- dame de fouriere et nous ___ ( apprendre) l'histoire de la soie dans la maiso de canuts. Le soir nous (prendre) des tickets pour le theatre, je n' $\qquad$ rien $\qquad$ (comprendre) car le texte etaits en ancient francais. Nous $\qquad$ (retourner) a l'hotel, nous (etre) fatigue de notre langue journee. Le lendemain, nous $\qquad$ (rentrer), mon mari $\qquad$ (conduire) tout le voyage. Nous $\qquad$ ( pouvoir) retrouver nos enfant qui $\qquad$ (vivre) seuls tout le week-end, en plus ils $\qquad$ (faire) tout le ménage dans la maison et ma fille $\qquad$ (aller) a son cours de tennis. C' $\qquad$ (etre) un bon week-end meme si je $\qquad$ ( avoir) mal aux pieds.
4. Mettez les phrases au negative ( ni____ni/ ne $\qquad$ jamis/ ne ___ pas encore/ne $\qquad$ pas/ ne $\qquad$ plus)
a) Il ya encore du beurre sur la table.
b) Ils connaissent mes parents.
c) J'ai déjà pris mon petit dejuner.
d) Nous prenons souvent des escargots.
e) J'ai un livre et un roman.
5. Completez avec plus que/ aussi que/moins que.
a) Christophe est (+) $\qquad$ age $\qquad$ son frère alain.
b) Ces filles sont (+) $\qquad$ belles $\qquad$ leurs soeurs.
c) Alain est (-) $\qquad$ independent $\qquad$ son grand-frere.
d) Ils sont (=) $\qquad$ gentils $\qquad$ les autres.
e) Il est (+) $\qquad$ mechant $\qquad$ son ami.
6. Mettez les verbs au passé recent.
a) Elle revise ce qu'elle $\qquad$ apprendre)
b) Ells $\qquad$ ( se promener), il ya cinq minutes.
c) Elle $\qquad$ (se lever) le matin a l'eau froide.
d) Vous $\qquad$ (finir) le repas.
e) Il $\qquad$ (prendre) du lait chaud.
7. Remplacez les mots soulignes par le/la/l'/les.
a) Il soir, on recoit les amis.
b) On passé le weekend a la champagne?
c) Nous Faison les courses avant de partir.
d) Je conduis la voiture.
e) La femme invite sa voisine au dejeuner.

SECTION D - CULTURE ET CIVILISATION

1. Repondez:
a) Quelle est la monnaie unique europeene en france.
b) Qu'achete-t-on a la cremerie?
c) Que peut-on acheter a la papeterie?
d) Nommez quelques legumes et fruits.
e) Nommez des dessert francais.
f) Quelle est votre dessert favori?
g) Quells sont les repas francais?
h) Nommez quelques fetes francaises.
i) Nommez quel ques fetes indiennes.
j) Quelle est ta fete prefere? Pourquoi?
2. Dites vrai ou faux.
a) La monnaie unique europeene de la france est roupies. $\qquad$
b) La recette de couscous est un plat nord- African.
c) La Suisse et la belgique sont les pays francophones. $\qquad$ -
d) Celine dion est une chanteuse francophone.
e) Le francais est la langue officielle a Pondicherry. $\qquad$
3. Repondez cette question:
a) Nommez les parfums francais.
b) Quell vetement portez- vous a l'ecole?
c) A quelle heure prenez vous le diner?
d) Est-ce que tu aide ta mere en cuisinant.
e) As-tu indien?
4. Repondez cette question:
(a) Que prefere vous comme boisson?
b) Quell vetement portez- vous a l'ecole?
c) A quelle heure prenez vous le diner?
d) Est-ce que tu aide ta mere en cuisinant.
e) Que prefere vous comme boisson?

$$
\text { Pg- } 3 \text { of } 3
$$

# DELHI PUBLIC SCHOOL <br> SAIL TOWNSHIP, RANCHI <br> ANNUAL EXAMINATION (2019-2020) 

Class:-IX
Time- 3 Hrs.

Subject:- Mathematics
M.M.-80

## General Instructions:-

1. All questions are compulsory.
2. The question paper consists of 40 questions divided into four sections $A, B, C$ and $D$.
3. Section A comprises of 20 questions of one mark each. Section B comprises of 6 questions of two marks each. Section C comprises of 8 questions of three marks each. Section D comprises of 6 questions of four marks each.
4. There is no overall choice. However, an internal choices have been provided in two questions of one mark each. Two questions of two marks each, three questions of three marks each and three questions of four marks each. You have to attempt only one of the alternatives in all such questions.
5. Use of calculator is strictly prohibited.

## SECTION - A

1. If $x^{-2}=64$, then $x^{\frac{1}{3}}+x^{0}$ is equal to
a. 2
b. 3
c. $\frac{3}{2}$
d. $\frac{2}{3}$
2. If $a-b=8$ and $a b=-12$, then $a^{3}-b^{3}$ is equal to
a. -244
b. -240
c. -224
d. none of these
3. The square and an equilateral triangle have equal perimeters. If the diagonals of the square is $12 \sqrt{2} \mathrm{~cm}$, then area of the triangle is
a. $24 \sqrt{2} \mathrm{~cm}^{2}$
b. $24 \sqrt{3} \mathrm{~cm}^{2}$
c. $64 \sqrt{3} \mathrm{~cm}^{2}$
d. None of these
4. If an angle is $16^{0}$ more than its complement, then the angle is
a. $43^{0}$
b. $63^{0}$
c. $53^{0}$
d. None of these
5. In which quadrant or axis $(-1,0)$ lies
a. $X$ axis
b. $Y$ axis
c. $1^{\text {st }}$ Quadrantd. None of these
6. The probability of sure event is
a. 0
b. 1
c. $>1$
d. $<1$
7. In $\triangle P Q R$, if $\angle P=100^{\circ}$, PM bisects $\angle P$ and $P M \perp Q R$, then $\angle Q$ is
a. $30^{0}$
b. $50^{0}$
c. $40^{0}$
d. None of these
8. If the radius of a cylinder is doubled and height is halved, then curved surface area will be
a. halved
b. doubled
c. same
d. 4 times
9. In a quadrilateral $\mathrm{ABCD}, \angle A+\angle C$ is 2 times $\angle B+\angle D$. If $\angle A=140^{\circ}$ and $\angle D=60^{\circ}$, then $\angle B$ is equal to
a. $60^{0}$
b. $80^{0}$
c. $120^{0}$
d. none of these
10. In $\triangle A B C$, D is the midpoint of AB and P is any point on BC . If $C Q \| P D$ meets AB in Q , then $\operatorname{ar}(\triangle B P Q)$ is.
a. $\frac{1}{2} \operatorname{ar}(\triangle A B C)$
b. $\frac{1}{4} \operatorname{ar}(\triangle A B C)$
c. $\frac{1}{6} \operatorname{ar}(\triangle A B C)$
d. None of these

Direction : (Question 11-15) fill in the blanks
11. A point common to three or more lines is known as $\qquad$ .
12. If the arithmetic mean of $7,5,13, x$ and 9 is 10 then $x$ is $\qquad$ .
13. If $(k-2, k+1)$ is a solution of the equation $2 x+3 y=4$ then $k$ is $\qquad$ .
14. The area of the triangle formed by the point $O(0,0), A(3,0)$ and $B(0,6)$ is (in sq unit) $\qquad$ -.
15. The mean of upper limit and lower limit of a class interval is known as $\qquad$ .

## OR

In inclusive method, the upper limit of a class is $\qquad$ in that class.
Direction: Question 16 to 20 (Answer the following)
16. The angles $\angle A: \angle B: \angle C$ of a triangle ABC are in the ratio 1:2:3. Find the largest side of the triangle .
17. Find the area of the figure obtained by joining the midpoints of the adjacent sides of a rectangle of sides 8 cm and 6 cm .
18. The length of rectangular field is thrice its breadth. If perimeter of rectangle is 80 cm . Find its breadth.
19. Two coins are tossed simultaneously. Find the probability of getting atmost one head.
20. Two circles of radii 4 cm and 3 cm intersect at two points and the distance between their centres is 5 cm . Find the length of the common chord.

## OR

In the given figure if $\angle \mathrm{ABM}=40^{\circ}$ then find $\angle \mathrm{MNB}$, where O is the centre of the circle.


## SECTION - B

21. If $x+\frac{1}{x}=7$, find $x^{3}+\frac{1}{x^{3}}$

## OR

If $a+b=10, a^{2}+b^{2}=58$, find the value of $a^{3}+b^{3}$
22. One card is drawn from a well shuffled deck of 52 cards. Find the probability of drawing.
i ' 2 ' of spades
ii. ' 10 ' of black suit
23. In the given figure ' $C$ ' is the midpoint of the segment $A B$. $P$ and $Q$ are midpoints of the segments $A C$ and $B C$ respectively. Prove that: $A P=B Q=\frac{1}{4} A B$
State the Euclid axiom used.

24. In $\triangle A B C, A D$ is the median through A and E is the midpoint of AD . BE produced meets AC in F . Prove that : $-\quad \mathrm{AF}=\frac{1}{3} \mathrm{AC}$

## OR

$D, E$ and $F$ are midpoint of sides $B C, C A$ and $A B$ respectively in an equilateral triangle $A B C$.
Prove that DEF is also an equilateral triangle. (with the help of ruler and compass)
25. Construct $105^{\circ}$ and bisect it.
26. Plot the points $A(0,4) B(-3,0), C(0,-4), D(3,0)$ and find the area of the figure obtained.

## SECTION - C

27. If $x=\frac{\sqrt{p+2 q}+\sqrt{p-2 q}}{\sqrt{p+2 q}-\sqrt{p-2 q}}$ and $q \neq 0$, then find $q x^{2}-p x+q$

OR
If $x=\frac{\sqrt{5}-\sqrt{2}}{\sqrt{5}+\sqrt{2}}$ and $y=\frac{\sqrt{5}+\sqrt{2}}{\sqrt{5}-\sqrt{2}}$ the find the value of $x^{2}+x y+y^{2}$
28. Factorise $a^{3}+b^{3}+c^{3}-3 a b c$
29. Prove that the angle formed by the bisector of interior $\angle A$ and the bisector of an extrerior $\angle B$ of a triangle ABC is half of $\angle C$.
30. Prove that the perimeter of a triangle is greater than the sum of its three medians.

## OR

ABC is a triangle in which $\angle B=2 \angle C$. D is a point on BC such that AD bisects $\angle B A C$ and $A B=C D$ prove that $\angle B A C=72^{\circ}$
31. In the figure $A B C$ and $B D E$ are two equilateral triangles such that $D$ is the midpoint of $B C$. If $A E$ intersects BC at F show that
i. $\operatorname{ar}(\triangle B D E)=\frac{1}{4} \operatorname{ar}(\triangle A B C)$
ii. $\operatorname{ar}(\triangle B D E)=\frac{1}{2} \operatorname{ar}(\triangle B A E)$
iii. $\operatorname{ar}(\triangle F E D)=\frac{1}{8} \operatorname{ar}(\triangle A F C)$


OR
In a quadrilateral $A B C D$, diagonals $A C$ and $B D$ intersect each other at ' $O$ ' such that $O B=O D$ if $A B=C D$, then show that
i. $\operatorname{ar}(D O C)=\operatorname{ar}(A O B)$
ii. $\operatorname{ar}(D C B)=\operatorname{ar}(A C B)$
iii. $D A \| C B$
32. Draw the graph of equation $3 x+y=6$, also find the points when the line intersects X -axis and Y -axis.
33. If mean of the following data is 50 . Find ' $b$ ' and frequency of 30 and 70

| X | 10 | 30 | 50 | 70 | 90 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| f | 17 | $5 \mathrm{~b}+3$ | 32 | $7 \mathrm{~b}-11$ | 19 |

34. Let, P be any point on the circumcircle of $\triangle A B C$ and perpendiculars $\mathrm{PL}, \mathrm{PM}$ and PN are drawn on the lines through line segments $\mathrm{BC}, \mathrm{CA}$ and AB respectively. Show that the points $\mathrm{L}, \mathrm{M}$ and N are collinear.

## SECTION - D

35. An inverted cone of vertical height 12 cm and radius of base 9 cm contains water to a depth of 4 cm . Find the area of the interior surface of the cone not in contact with water (nearest to 2 decimal place)

OR
A solid toy is in the form of right circular cylinder with hemispherical shape at one end and a cone at the other end. Their common diameter is 4.2 cm and the height of the cylindrical and conical portions are 12 cm and 7 cm respectively. Find the volume of the solid toy. (Correct to 2 decimal place)
36. Construct a triangle PQR in which $\mathrm{QR}=6 \mathrm{~cm}, \angle Q=60^{\circ}$ and $P R-P Q=2 \mathrm{~cm}$. Write its steps.
37. State and prove midpoint theorem.
38. Draw a histogram and frequency polygon from the following data

| Marks | $10-15$ | $15-20$ | $20-25$ | $25-30$ | $30-40$ | $40-60$ | $60-90$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| No. of <br> students | 7 | 9 | 8 | 5 | 12 | 12 | 24 |

39. XY is a line parallel to side BC of triangle ABC . If $B E \| A C$ and $C F \| A B$ meet XY at E and F respectively show that $\operatorname{ar}(\mathrm{ABE})=\operatorname{ar}(\mathrm{ACF})$
40. From a point in the interior of an equilateral triangle, perpendiculars are drawn on the three sides. The lengths of the perpendicular are $14 \mathrm{~cm}, 10 \mathrm{~cm}$ and 6 cm find the area of the triangle.

## OR

A kite in the shape of a square with a diagonal 32 cm and an isosceles triangle of base 8 cm and sides 6 cm each is to be made of three different shades as shown in figure. How much paper of each shade has been used in it.


