



# DELHI PUBLIC SCHOOL

## SAIL TOWNSHIP, RANCHI

HALF YEARLY EXAMINATION (2022-23)

Class - X  
Time - 2 Hours

Subject - Artificial Intelligence  
Maximum Marks- 50

### General Instructions:

1. Please read the instructions carefully
2. This Question Paper is divided into 03 sections, viz., Section A, Section B and Section C.
3. Section A is of 10 marks and has 10 questions of MCQ type.
4. Section B is of 20 marks and has 10 questions of subjective type(Short Answer Type).
5. Section C is of 20 marks and has 5 questions of subjective type(Long Answer Type).
6. Marks allotted are mentioned against each section/question.
7. All questions must be attempted in the correct order.

### SECTION A

Choose a correct option to answer the questions given below (1 x 10 = 10 marks)

1	Where does the processing in an ANN occur? a. Output Layer b. Hidden Layer c. Input Layer d. Data Layer	1
2	Regression works with : a. Intermittent Data b. Continuous Data c. Step Function Data d. Partially Linear Data	1
3	Which of the following is not a visualization technique in AI project cycle? a. System Maps b. Sketchy Graphs c. Decision Tree d. None of these	1

4	<p>The factor(s) that may bring about negative changes in a person suffering from stress are .....</p> <ul style="list-style-type: none"> <li>a. Threat</li> <li>b. Peer Pressure</li> <li>c. Both a and b</li> <li>d. None of these</li> </ul>	1
5	<p>In _____, we provide the AI model for the correct answers ahead of time.</p> <ul style="list-style-type: none"> <li>a. Transfer learning</li> <li>b. Unsupervised learning</li> <li>c. Reinforced learning</li> <li>d. Supervised learning</li> </ul>	1
6	<p>What is the name of first computer virus?</p> <ul style="list-style-type: none"> <li>a. The Famous</li> <li>b. HARLIE</li> <li>c. PARAM</li> <li>d. Creeper</li> </ul>	1
7	<p>The advertisement of merchandise is an example of which of the following domains of AI?</p> <ul style="list-style-type: none"> <li>a. data science</li> <li>b. computer vision</li> <li>c. natural language processing</li> <li>d. All of the above</li> </ul>	1
8	<p>Nihar is learning AI domains. He is confused about which domain is related to data mining, machine learning and big data? Choose the perfect domain to make his confusion clear:</p> <ul style="list-style-type: none"> <li>a. Data Science</li> <li>b. Computer Vision</li> <li>c. Natural Language Processing</li> <li>d. Neural Network</li> </ul>	1
9	<p>Which block in the 4W CANVAS is needed to gather evidence to prove that the problem really exists?</p> <ul style="list-style-type: none"> <li>a. Why</li> <li>b. Where</li> <li>c. What</li> <li>d. Who</li> </ul>	1

10	Which of the following refers to the type of data you want to collect? a. Training Data b. Model c. Testing Data d. Data Features	1
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## SECTION B

**Answer the questions given below in your own words (about 60 Words).**

**(2 x 10 = 20 marks)**

11	What are the different stress management techniques?	2
12	Why do we need a maintenance schedule for computers? Can you prepare a checklist for maintaining both internal and external components .	2
13	What is BIOS?	2
14	Write short notes on any two given below: 1. computer Virus 2. Malware 3. Cookies.	2
15	Draw the graphical representation of Clustering AI model. Explain in brief.	2
16	How do you feel AI is already impacting your day to day life? Give examples.	2
17	What are issues and concerns related to AI?	2
18	What are the two different approaches for AI modelling? Define them.	2
19	Write the names of all the stages of AI project cycle.	2
20	In which stage of AI project cycle framework decisions tree is used? What is decision tree model/algorithm?	2

## SECTION C

Answer the questions given below in your own words (about 120 words).  
(4x 5 = 20 marks)

21	What is operating system? What are the functions of operating system? Give some examples of operating system.	4
22	Imagine you are running a call centre. You face a problem that your staff is not sitting in their seats and a lot of callers are kept waiting. How will you use CV, NLP and Data together to solve both the problems?	4
23	What is Artificial Neural Network? What are the features of an Artificial Neural Network?	4
24	Explain the following: a. Supervised Learning b. Unsupervised Learning	4
25	Create a 4Ws project canvas/template for the following: <b>Case Study:</b> MIIT Academy is an institute which provides Computer Training to Senior Professionals. The institute has limited seats and is high in demand among the Working Professionals. It's planning to conduct an Entrance Test at Pan India level. They have to ensure that unauthorised people don't enter the Exam Centre so that they have fair admission selection. For this they need a system in place that should check who all are entering the center, and the system should raise an alert if it finds any unauthorised people entering. The Institute has the hard copies of the photographs of all the professionals who have applied and also of all staff that would be present at the center.	4



# DELHI PUBLIC SCHOOL

## SAIL TOWNSHIP, RANCHI

### HALF YEARLY EXAMINATION (2022-23)

**Class - X**  
**Time - 3 Hours**

**Subject - English**  
**Maximum Marks- 80**

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General Instruction:

1. This paper is divided into three sections A, B and C. All the sections are compulsory.
  2. Separate instructions are given with each section and question whenever necessary . Read these instructions very carefully and follow them very faithfully.
  3. Do not exceed the prescribed word limit while answering the questions.
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### SECTION A- READING [20 Marks]

**I. Read the following passage carefully.**

1. Crash dieting may help you lose weight, in the short term, but, ultimately it can hinder weight loss in the long term, as most of the weight that you have lost with crash dieting will bounce back, meaning you will gain all the weight that you have lost and more. Crash dieting not only removes fat but also leans muscle and tissue. Contrary to the belief of many who start this diet, this form of dieting is neither healthy nor successful in achieving long term weight loss as it induces the slowing down of the body's basal metabolic rate- the body seeks to conserve every calorie and so weight loss becomes increasingly difficult. Basal metabolic rate is the amount of calories your body needs on a daily basis, to maintain its regular activities. This means your body will need fewer calories than it did previously, making weight gain likely once you stop dieting.
2. Most crash diets involve eating low- calorie foods for several weeks for several weeks or eating the same food or food groups for several weeks. Even if you're only trying the diet for a week or two, eating such a strict diet of the same foods can cause nutritional deficiencies. Eliminating one or more food groups will not provide you with adequate, long-term nutrition. Nutritional deficiencies such as this can have multiple immediate side effects such as haggard look, dark under eyes, dull skin, sloppy posture and lack of stamina.
3. This is also why exercise is recommended in any weight-loss plan to build muscle and maintain your metabolic rate. Again common mistakes that are observed with exercise are joining the gym only till the New Year, so that you can lose weight and once the party is over, the party for not exercising continues. On the other hand, we have some who make New Year resolutions and with the gym memberships which are so tempting during the New Year, take up annual memberships, which is not bad. What is bad is to break the resolution. It is good to take up an exercise, provided you do not break your resolution, and continue exercising year long. What is important that you should not be intemperate.

4. It's strongly recommended not to go on a crash diet, even if you are motivated to lose weight to fit into clothes a couple of sizes smaller. What is good is to become particular to lead a healthy lifestyle. This in the long run will help you achieve normal weight and help you be energetic and cheerful. Safe weight loss is considered to be no more than half a kilogram to one kilogram per week. No single food can be considered good or bad. A single meal does not make or break a healthy diet, as all foods can fit into a good diet when consumed in moderation.

**On the basis of your understanding , answer the questions that follow.**

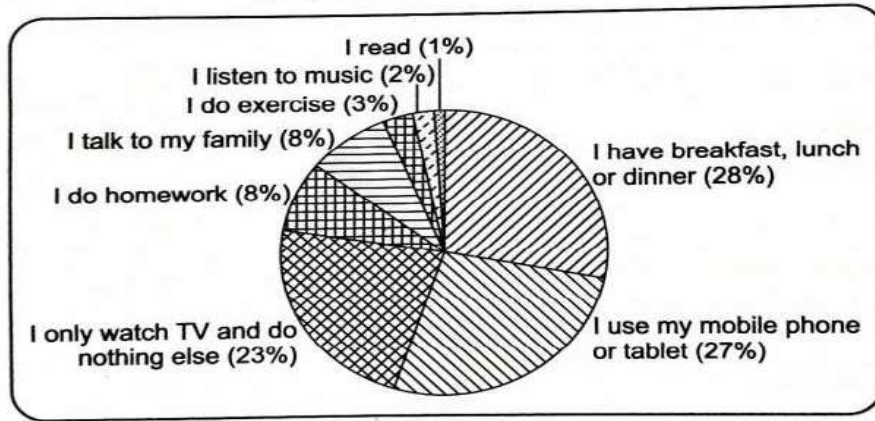
[1×10=10]

- a) What harm does crash dieting do? Mention any one reason.
- b) There is a basic flaw in diet plans which can cause nutritional deficiencies. What is it?
- c) Why is exercise important?
- d) What is the writer's view on gym membership?
- e) What are some side effects of nutritional deficiencies?
- f) Safe weight loss is considered to be \_\_\_\_\_.
- g) According to the passage, one should make a conscious effort to lead a healthy lifestyle instead of going to a crash diet. ( True/ False)
- h) The amount of calories, our body needs on a daily basis to maintain its regular activities is called \_\_\_\_\_.
- i) In para 3, the antonym of ' controlled' is \_\_\_\_\_
  - i. Adequate
  - ii. High
  - iii. Intemperate
  - iv. Equal
- j) In para 4, replace the word ' particular' with its synonym.
  - i. Lugubrious
  - ii. Fastidious
  - iii. Desperate
  - iv. Affluent

## II. Read the passage given below carefully.

1. We often think of TV watching as the activity where people are fully concentrating in the TV programs. We think that they are extremely enthusiastic about it. However, research has shown that there is a continuum of levels of attention while watching TV.
2. All teenagers are different. But many enjoy spending their free time doing things like shopping, going to parties, being with friends, gaming and using social media, texting, watching movies, reading and going to the beach and park.
3. Teenagers are also spending an increasing amount of their TV time in structured extracurricular activities like arts and sports. The given chart shows teenagers' answers to a survey for Northern Ireland Teen Time magazine, which asked them if they do anything else while they watch TV. It can be seen that over three-quarters of those surveyed do other things simultaneously.

### Other Activities while Watching TV



4. Over half said they either ate or checked their mobile phone or tablet while they were watching TV while, perhaps unsurprisingly, only a few teenagers said they read, did exercise or listened to music while watching TV. Eight per cent talked to their families and another 8% said they often did homework and watched TV at the same time.
5. It was found that multitasking occurred almost 40% of the time when people were seated in front of the television. Most multitasking occurred during TV programs—not during the interval between the TV programs. Of the time people spent multi-tasking, 27% was spent on a device, mostly a smartphone. However, only 10% of device-related multitasking was related to the content playing on TV. With our study, we contribute to the greater body of foundational knowledge around common multitasking behaviors that are conducted in front of the television.
6. These figures may reflect a general trend towards less formal family mealtimes and greater levels of multitasking. However, a significant number of teenagers still focus fully on the television when they are watching.

**On the basis of your understanding of the passage, answer the questions.**

[1X10=10]

- a) Which country has conducted this study?
- b) On which target group of population is the survey conducted?
- c) Which activity while watching TV has the largest share amongst all?
- d) What percentage of people check their mobile while watching TV?
- e) What are the total number of activities on which this survey is conducted?
- f) Which activity in the survey holds the lowest share?
- g) Which phrase in para 1 can be replaced by the phrase- 'lived and breathed'.
- h) Give one word for 'doing many tasks at the same time'. ( para 5)
- i) Teenagers are a group between the age group of \_\_\_\_
  - i. 10 to 19 years
  - ii. 13 to 19 years
  - iii. 13 to 21 years
  - iv. 11 to 20 years
- j) While watching TV, the other activities which Teens do are \_\_\_\_
  - i. Reading
  - ii. Listening music
  - iii. Doing exercise
  - iv. All of the above

## SECTION B- GRAMMAR AND WRITING( 20 Marks)

III. A.Fill in the blanks with the appropriate determiners.(Any THREE) [1X3=3]

Sahil: Will you get (a)\_\_\_\_\_ orange in the market?

Mother: If I get, I will buy (b) \_\_\_\_\_.

Sahil: Please take (c) \_\_\_\_\_ keys along with you.

Mother: You take rest, I will be back in (d)\_\_\_\_\_ hour.

B. The following passage has not been edited. There is an error related to modals in each line. Write the incorrect word and the correction in your answer sheet as given below. First one has been done for you. ( Any THREE ) [1X3=3]

	Error	Correction
Sohan may see the doctor immediately.	may	must
He shouldn't get well unless he visits a doctor.	a) ____	____
He will be suffering from viral fever or influenza.	b) ____	____
He can take proper medicine.	c) ____	____
It has to affect not only his health but studies also.	d) ____	____

C. Rewrite the sentences by correcting the forms of verbs. [1X4=4]

i) He is suffering from fever since Tuesday.

ii) She sang when I entered the hall.

iii) The patient died before the doctor arrived.

iv) At 11:00 a.m. tomorrow, I will deliver a lecture in the auditorium.

IV. A. Attempt any ONE of the following letters. [5X1=5]

( i ) You are Suresh/ Sudha, Secretary of the Student Council, Deepak Jyoti Public School, New Delhi. You are planning an excursion to Ranthambore National Park for students of classes IX and X. Write a letter to the Director, Tourism Department, Ranthambore National Park, enquiring about a package for 50 students which would include transportation, sightseeing, boarding and lodging for 5 nights. ( Word limit-100-120 words)

OR

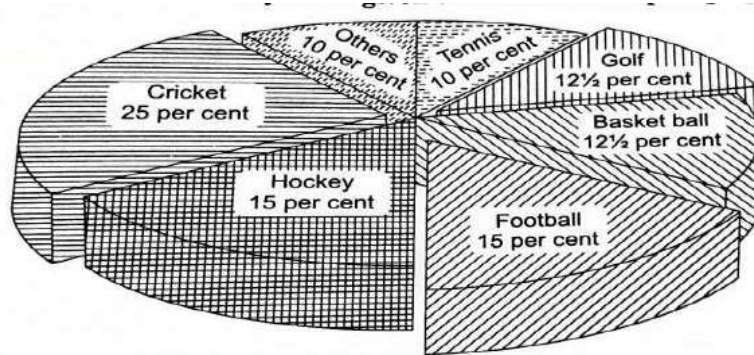
( ii ) You are Deepak/ Deepti, the Librarian of Gandhi Public School, Noida. You had placed an order for a few books for your school library. When the books were delivered , you found some were damaged and some were missing. Write a letter of complaint to the Sales Manager, Sunny Publishers Limited, Delhi asking for their immediate replacement. ( Word limit- 100-120 words )



IV. B. Attempt any ONE of the given Analytical Paragraphs.

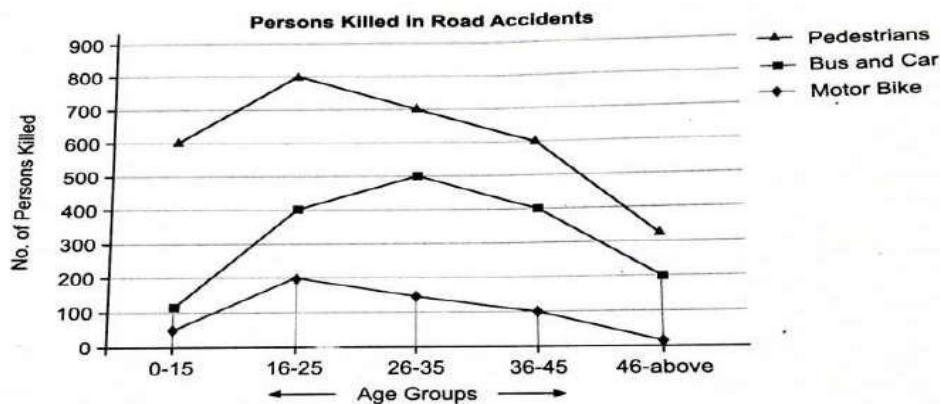
[5X1=5]

(i) The pie chart drawn below shows the expenditure of young population in India on various sports equipment during the year 2021. Analyse the given data and write a paragraph in 100-120 words.



OR

(ii) The line graph given below shows the number of people of different age groups getting killed in road accidents. Analyse the given data and write a paragraph in 100-120 words.



SECTION C- LITERATURE ( 40 Marks )

V. A. Read the extracts given below and answer any ONE of them.

[1X5= 5]

(i) Poor Kisa Gotami now went from house to house, and the people pitied her and said, " Here is mustard-seed; take it!" But when she asked, " Did a son or daughter, a father or mother, die in your family?" they answered her, " Alas! The living are few, but the dead are many. Do not remind us of our deepest grief." And there was no house but some beloved one had died in it."

- a. Which one of the following statements is not true?
1. Kisa Gotami did not easily accept the death of her son.
  2. Kisa Gotami begged Gautam Buddha for a cure for her child.
  3. Kisa Gotami went door to door requesting water for her child.
  4. Kisa Gotami was in extreme pain and sorrow.

- b. Why did Gautam Buddha send Kisa Gotami to collect mustard seeds?
- c. Kisa Gotami asked the people if \_\_\_\_\_.
- d. What was the deepest grief of most of the families?
- e. Which word in the given extract is the synonym of the word 'compassionated'?

OR

(ii) And as the light came on, Fowler had his first authentic thrill of the day. For halfway across the room, a small automatic pistol in his hand, stood a man. Ausable blinked a few times.

- a. Who was Fowler?
- b. Fowler knew that there would be a stranger. ( True/ False)
- c. Who was the 'man' mentioned here?
- d. The opposite of the word 'automatic' is \_\_\_\_\_.
- e. Which word in the extract means the same as 'genuine'?
  - 1. Thrill
  - 2. Automatic
  - 3. Authentic
  - 4. Blink

**V.B. Read the following extracts and answer any ONE of them.**

[1×5=5]

(i) Or if some time when roaming round,

A noble beast greets you,

With black stripes on a yellow ground,

Just notice if he eats you.

This simple rule may help you to learn

The Bengal Tiger to discern.

- a. The 'noble beast' refers to \_\_\_\_\_.
- b. What is the rhyme scheme of this stanza?
- c. What rule should the reader learn?
- d. The poet describes the noble beast as having \_\_\_\_\_.
- e. The meaning of the word 'discern' is-
  - 1. Leap
  - 2. Touch gently
  - 3. Surprise
  - 4. Identify

OR

(ii) I would not intrude on him;

A dime, another ball, is worthless. Now

He senses first responsibility

In a world of possessions.

- a. Why does the poet decide not to intrude on the boy?
- b. The meaning of the word 'dime' is \_\_\_\_\_.
- c. Pick out the word from the stanza which is the antonym of 'withdraw'.
- d. According to the poet, what does the boy learn from this experience?
- e. What does the phrase 'the world of possession' used in the poem convey?
  1. It stands for responsibility
  2. It stands for lust
  3. It stands for materialistic world
  4. None of the above

**VI.A. Answer the following questions in about 40-50 words. ( Attempt any FOUR )** [3X4=12]

- a. How did Mandela learn the meaning of courage? What was courage according to him?
- b. What is the central idea of 'The Ball Poem'?
- c. Describe some incidents which show that Mijbil was a playful otter?
- d. How has the author narrated the role of bakers in his childhood?
- e. 'Coorg is the heaven for the nature-lovers' - prove this statement by giving some examples from the text.

**VI.B. Answer the following questions in about 40-50 words. ( Attempt any TWO )** [3X2=6]

- a. What made Tricky inactive and lethargic? Write briefly.
- b. How does Ausable's presence of mind saved the situation? Explain.
- c. What are the qualities that are required in the making of a scientist?

**VI. C. Answer any ONE out of the two questions in 100-120 words.** [6X1=6]

- a. 'From the Diary of Anne Frank' story throws light on multi-faceted teacher-student relationship, class atmosphere and discipline very nicely. Do you agree with this statement? Justify your point.

OR

- b. "He who has overcome all sorrow will become free from sorrow, and be blessed." Elucidate the statement with reference to the story 'The Sermon at Benares'.

**VI. D. Answer any ONE out of the two questions in 100-120 words.** [6X1=6]

- a. Give a character-sketch of the thief, Hari Singh. Highlight the gradual changes that came in him.

OR

- b. Horace Danby represents such people who adopt the wrong ways to fulfil their wishes. What values would you like such people to imbibe to refrain themselves from doing such things?





**DELHI PUBLIC SCHOOL**  
**SAIL TOWNSHIP, RANCHI**  
**HALF YEARLY EXAMINATION (2022-23)**

**Class - X**  
**Time - 3 Hours**

**Subject - French**  
**Maximum Marks- 80**

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**Section A ( COMPRÉHENSION ÉCRITE ) Marks-10**

Lisez les textes suivants et répondez aux questions qui suivent :

**LES MOTS ET LES CHOSES**

Il y était une fois un petit garçon qui s'appelait Henri et qui n'aimait pas les mots. Les mots, disait-il, ça ne sert qu'à apprendre l'orthographe ! » Et bien entendu, il détestait l'orthographe.

Quand son papa ou sa maman essayaient de lui expliquer que notre tête est pleine de mots parce que le monde est plein de choses, et qu'il faut un mot pour chaque chose, Henri se fâchait tout rouge en criant:

<< Moi, j'appelle les choses par leur nom ! >>

Ses parents ne voulaient pas le contrarier, mais son papa finit par lui demander:

«Comment sais-tu leur nom?

-Elles me le disent à l'oreille. -Tu sais bien que les choses ne parlent pas.

-Oh! dit Henri, il n'y a qu'aux grandes personnes qu'elles ne parlent pas. >>

Le père n'a pas insisté, mais Henri s'est mis à réfléchir et s'est dit tout à coup :

<<Puisque les choses ne parlent pas, elles ne peuvent pas dire comment elles s'appellent, alors qui les a appelées comme ça ? >>

1. Répondez: [2]

- a. Pourquoi Henri se fâchait-il ?
- b. Comment trouvez-vous Henri ? Intelligent ou stupide ? Pourquoi ?

2. Dites vrai ou faux. [2]

- a. Selon Henri, les mots ne servent pas à apprendre l'orthographe.
- b. Ses parents veulent qu'il apprenne l'orthographe.
- c. Les choses parlent à Henri.
- d. Les parents aiment contrarier Henri.

3. Trouvez dans le texte : [2]
- l'équivalent de «< penser >>.
  - deux parties du corps.
  - l'équivalent de «< seulement >>.
  - l'équivalent de «< soudain >>.

4. Complétez avec les mots du texte. [2]
- Il. ....quelque chose pour ouvrir la porte fermée. (sert/ faut/ est)
  - Patrick ne pouvait jamais..... son père. (apprendre/ expliquer/ contrarier)
  - Le père.....parce qu'Henri ne l'écoutait pas. (n'aimait pas/ se fachait/ appelle)
  4. L'étudiant a.....la question. (entendu/ dit/ insisté)

5. Donnez : [2]
- le contraire de «< aimer >>. (ne pas aimer/ détester/ contrarier)
  - la forme verbale de « le nom ». (parler/ nommer/ nommerer)
  - le contraire de « petites ». (pleines/ choses/ grandes)
  - la forme nominale de « finir », (le finis/ le fin/ la finiche)

### Section B ( ÉCRITE ) Marks-20

- Écrivez une lettre à votre ami(e) français(e) en racontant une fable. ( 80 mots) [10]
- Écrivez un message à votre ami (e) pour inviter à votre anniversaire. (35-40 mots) [5]
- Mettez le dialogue dans le bon ordre. [5]

#### Allons au cinéma

- Oui, pourquoi ?
- Quel film va-t-on voir ?
- On peut se donner rendez-vous devant le cinéma PVR.
- Es-tu libre demain ?
- Pour aller voir un film.
- Je ne sais pas mais on peut voir demain.
- Pas de problèmes. À demain à 4 h devant le cinéma PVR.
- D'accord, je viendrai avec mon amie.
- Oui. À demain.

OU

4. Complétez avec les mots donnés. [5]
- (monde/ faisait/ quité/ bonne/ promenade)

Hier matin, j'ai.....la maison de.....heure. Il .....très beau et j'ai décidé de

faire une.....dans le parc. Il y avait déjà beaucoup de.....

## Section C ( GRAMMAIRE ) Marks-30

1. Réécrivez les phrases suivantes au futur antérieur. [5]
  - a. Tu travailleras pour une bonne cause.
  - b. Nous organiserons une fête dans notre collège.
  - c. Moi, je ne finirai pas mon travail à midi.
  - d. Nous nous sentirons mieux.
  - e. Laurent vendra ses billets pour le cinéma.
  
2. Mettez les phrases suivantes à la forme convenable de l'impératif. [5]
  - a. ....à faire face à vos difficultés avec courage ! (apprendre)
  - b. .... madame que vous devez partir à 6 h! (savoir)
  - c. .... peur mes enfants! (ne pas avoir)
  - d. .... les mains. Elles sont sales! (se laver)
  - e. ....nos soucis personnels ! (oublier)
  
3. Remplacez les noms en caractères gras par des pronoms personnels directs et indirects. [5]
  - a. Ils demandent la réponse à leurs parents.
  - b. Nicolas va apporter les fleurs à sa mère.
  - c. Je me brosse les dents deux fois par jour.
  - d. Il pose ces questions à tous ses amis.
  - e. Ne demandez-vous pas l'adresse à votre ami ?
  
4. Trouvez les questions. [5]
  - a.Ce manteau est en laine.
  - b.Nous téléphonons à nos amis.
  - c.Ils en ont acheté deux kilos.
  - d.Elle étudie sérieusement.
  - e.Elle a acheté des fleurs pour sa mère.
  
5. Mettez au plus-que-parfait ou au passé composé/imparfait selon le sens. [5]
  - a. Ils..... (manger) un délicieux gâteau que leur maman.....(préparer).
  - b. Maman .....(ne pas être) contente car Aurélie.....(sortir) sans permission.
  - c. Dès que Emilie.....(finir) son devoir, elle..... (pouvoir) regarder la télé
  - d. Quand il..... (sonner) à la porte, vous..... déjà. ....(partir).
  - e. Aussitôt que ma mère.....(faire) le ménage, elle.....(prendre) toujours une tasse de thé.
  
6. Répondez négativement aux questions suivantes. [5]
  - a. Quelque chose vous a surpris dans la rue ce matin?
  - b. Attendiez-vous quelqu'un ?
  - c. Quelqu'un est venu me voir ?
  - d. Y a-t-il des œufs dans le frigo?
  - e. Tu peux faire quelque chose pour moi ?

## Section D ( CULTURE ET CIVILISATION ) Marks-20

1. Répondez aux questions. [10]

- a. Donne-t-on un pourboire dans son pays ?
- b. Que trouve-t-on à la boulangerie ?
- c. Que prenez -vous pour votre petit déjeuner ?
- d. Qu'achète-t-on à la poissonnerie ?
- e. Aimez -vous le fromage ?

2. Dites vrai ou faux. [5]

- a. Renoir était un musicien français.
- b. Le musée d'Orsay est plus petit que le musée du Louvre.
- c. Le Louvre est installé sur la rive gauche de la Seine.
- d. Van Gogh était un peintre français.
- e. On ne doit pas trop parler.

3. Reliez les phrases. [5]

A

B

- |                   |                                      |
|-------------------|--------------------------------------|
| 1. Baccalauréat   | (a) baby sitting ou laver la voiture |
| 2. Brevet         | (b) université                       |
| 3. Sorbonne       | (c) collègue                         |
| 4. Petits emplois | (d) technologie                      |
| 5. IUT            | (e) lycée                            |
-





**DELHI PUBLIC SCHOOL**  
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**HALF YEARLY EXAMINATION (2022-23)**

**Class - X**  
**Time - 1 Hour**

**Subject - General Knowledge**  
**Maximum Marks-50**

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**HISTORY**

[5×2=10 Marks]

1. Which two industries were the dynamic industries of England during its earliest phase of Industrialisation?
2. What views did Giuseppe Mazzini have about Italy?
3. Name the two Italian-speaking provinces of the Habsburg Empire.
4. How was Mazzini described by Metternich?
5. Who led the movement to unify the regions of Italy and when?

**GEOGRAPHY**

[1×10=10 Marks]

**I. MCQ [1X5=5]**

6. The combination of agriculture and pastoral farming is called
  - a. Mixed farming
  - b. Joint farming
  - c. Intensive farming
  - d. Cooperative farming
7. Jute is a
  - a. Rabi crop
  - b. Kharif crop
  - c. Zaid crop
  - d. Winter crop
8. According to the census 2011, nearly..... of total Indian population is dependent on the agriculture
  - a. 55%
  - b. 45%
  - c. 35%
  - d. 65%
9. Most abundantly found power resource in India is
  - a. Coal
  - b. Petroleum
  - c. Thermal power
  - d. Hydroelectric power

10. To what Jawaharlal Nehru referred to as 'Temple of Modern India'

- a. Dams
- b. Bridges
- c. Bullock carts
- d. Power stations

**II. Name the following [1x5=5]**

- 11. Name the oldest Multi-Purpose Project in India.
- 12. Name the longest Multi-Purpose Project in India.
- 13. Name the river on which Bhakra-Nangal Multi-purpose Project is made.
- 14. Name any one Genetically Modified crop allowed in India
- 15. Name the first Organic state of India.

**INDIAN POLITY**

[1×5=5 Marks]

- 16. Who has the power to pardon a death sentence in India?
- 17. By which type of vote, Vice President of India is elected?
- 18. Who was the first Prime Minister to loose confidence motion of the House?
- 19. What is the maximum number of members in the Rajya Sabha?
- 20. What is the number of Anglo-Indian members in the Lok Sabha?

**CURRENT AFFAIRS**

[1×5=5 Marks]

- 21. What is the rank of India at Commonwealth Games 2022?
- 22. Which country recently signed a MOU with India on biodiversity conservation ?
- 23. Which company has partnered with technology giants such as Meta, Google, Microsoft and Intel to roll out 5G services?
- 24. For which film Jane Campion won the best director awards at 94th Oscar ?
- 25. Which eminent author is being attacked by knife while he went for a program at New York.

**INDIAN ECONOMY**

[1×5= 5 Marks]

- 26. What is the full form of MSME?
- 27. Under which category of Central Public Sector Enterprises (CPSEs) does BHEL come?
- 28. What does IIP stand for?
- 29. Name the mission launched in 2020 to evacuate stranded Indians across the world.
- 30. What does WPI stand for?

**PHYSICS**

[1×5=5 Marks]

- 31. What is the speed of light in water ?
  - a.  $2.25 \times 10^8$  m/s
  - b.  $3 \times 10^8$  m/s
  - c.  $2 \times 10^8$  m/s
  - d.  $2.04 \times 3 \times 10^8$  m/s

32. If the plane mirror is rotated by  $\theta$ , keeping the incident rays fixed, the reflected rays is rotated by
- $2\theta$
  - $\frac{\theta}{2}$
  - $3\theta$
  - $8\theta$
33. What are the primary colours?
- Blue, Red, Green
  - Yellow, Red, Green
  - Yellow, Blue, Green
  - Yellow, Red, Blue
34. Work done in bringing a unit positive charge from infinity to that point is called---
- Electric potential
  - Electric capacity
  - Electric field
  - Electric intensity
35. S.I. unit of electric capacity is -----
- Farad (F)
  - Watts (W)
  - Joule (J)
  - Volt (V)

## CHEMISTRY

[1×5=5 Marks]

36. What is loss of electron known as ?
37. What is Gain of electron known as?
38. A solution whose Ph does not alter greatly after the addition of small amount of acid or base is called-----
39. Excess of copper causes which disease in human beings-----
40. What is used to prepare fire proof and waterproof clothes?

## BIOLOGY

[1×5=5 Marks]

### I. Name the following

41. Study of internal structure of organism.
42. Plants which have both male and female flower.
43. The plant hormone which helps in the healing of plant cells

### II. FIB -

44. ----- light is most effective for photosynthesis
45. During photosynthesis, oxygen is obtained from-----



# DELHI PUBLIC SCHOOL

SAIL TOWNSHIP, RANCHI

HALF YEARLY EXAMINATION (2022-23)

Class - X  
Time - 3 Hours

Subject - German  
Maximum Marks-80

	<b>General Instructions</b> <ol style="list-style-type: none"><li>1. This paper has four sections i.e., Reading, Writing, Grammar and Textbook.</li><li>2. The marks for each section are defined with individual questions.</li><li>3. Attempt question of one group at one place.</li><li>4. Write complete sentence for fill in the blanks type question.</li><li>5. Read the instructions carefully and attempt only the required number of questions where internal choices are given.</li></ol>	
	<b>Section A- LESEN (Reading)</b> <b>(20 marks)</b>	
I.	<b>Lies die folgenden Texte. Löse die Aufgaben zu den Texten</b>  Liebe Susanne,  grüß dich! Wie geht es dir? Ich mache zurzeit am Bodensee Urlaub mit meiner Familie in Deutschland. Hier ist es alles so schön. Wir wohnen in einem tollen Hotel. Es heißt „Delfin“. Es ist teuer, aber die Zimmer sind groß und schön. Das Wetter ist herrlich. Der Strand ist super. Wir, d.h. mein Vater, meine Mutter, meine Schwestern und ich, schwimmen und tauchen jeden Tag. Vati liest viel. Mutti und ich gehen auch manchmal spazieren. Ich habe meine Kamera hier und mache viele Fotos. Meine Schwestern, Ira und Anna spielen gern Basketball. Wir haben hier keinen Computer und wir sehen auch nie fern. Kein Internet, kein Fernsehen: das finde ich besonders toll. Am Abend kochen wir meistens. Das macht viel Spaß. Ich koche immer meine Spaghetti, Bolognese. Du weißt ja meine Spezialität. Mutti kocht manchmal Fisch. Das ist auch lecker. Viele Restaurants gibt es hier auch. Ab und zu essen wir auch im Restaurant. Ich spiele oft mit Ira und Anna Karten. Wie geht es bei dir zu Hause? Musst du viel lernen? Wann hast du Ferien? Wohin gehst du in den Urlaub? Ich warte auf deine Antwort. Viele schöne Grüße aus Deutschland! Bis bald!  Julian	

	<p><b>A. Beantworte die folgenden Fragen.</b></p> <ol style="list-style-type: none"> <li>1. An wen schreibt Julian die Postkarte?</li> <li>2. Ist das Wetter angenehm?</li> <li>3. Was findet Julian besonders toll?</li> <li>4. Wer liest viel?</li> <li>5. Hat Julian seine Kamera dabei?</li> <li>6. Mit wem spielt Julian oft Karten?</li> </ol> <p><b>B. Bilde Sätze mit den folgenden Wörtern.</b></p> <p>a. lecker b. lesen c. Urlaub d. Fußball</p> <p><b>C. Schreib die Artikel.</b></p> <p>a. Kamera b. Computer c. Fotos d. Ferien</p>	<p>1x6=6</p> <p>.5x4=2</p> <p>.5x4=2</p>						
<p>II.</p>	<p><b>Fußballstar</b></p> <p>Es gibt Tage, da habe ich einfach keine Lust, in die Schule zu gehen. Dann versuche ich, meiner Mutter zu erzählen, dass ich Fieber habe und ganz krank bin. Aber das funktioniert nicht. Meine Mutter weiß genau, dass ich nur die Hausaufgaben vergessen habe. Da wird sie ganz sauer und verbietet mir, in mein Fußballtraining zu gehen. Es macht mir nämlich viel mehr Spaß, ins Fußballtraining zu gehen als Hausaufgaben zu machen. Und dann, wenn ich im Fußballtraining war, hatte ich oft keine Zeit mehr, etwas für die Schule zu tun. Und deswegen erlaubt mir meine Mutter nicht, ins Training zu gehen. Es ist schon traurig. Denn eigentlich habe ich vor, ein großer Fußballspieler zu werden. Ich habe wirklich kein Interesse, besonders klug zu werden, Lehrer oder sonst was zu werden. Ich stelle mir meine Arbeit später einmal so vor, in einem tollen Fußballclub zu spielen und berühmt zu werden. Und ich hoffe, dann auch viel Geld zu verdienen. Und wenn es dann soweit ist, freue ich mich, es allein zu zeigen- Man muss eigentlich gar nicht in die Schule gehen!</p> <p style="text-align: right;">- Stefan, 13</p> <p><b>A. Was passt zusammen?</b></p> <table border="0"> <tr> <td>i) Manchmal hat Stefan keine Lust,</td> <td>a) wird ihre Mutter sehr wütend.</td> </tr> <tr> <td>ii) Wenn Stefan die Hausaufgaben vergisst,</td> <td>b) in einem tollen Fußballclub zu spielen.</td> </tr> <tr> <td>iii) Stefan freut sich darauf,</td> <td>c) in die Schule zu gehen.</td> </tr> </table> <p><b>B. Beantworte die Fragen.</b></p> <ol style="list-style-type: none"> <li>a) Was erzählt Stefan seiner Mutter, wenn er nicht in die Schule gehen will?</li> <li>b) Was findet Stefan besser? Hausaufgaben oder Fußball?</li> <li>c) Was möchte Stefan werden?</li> </ol>	i) Manchmal hat Stefan keine Lust,	a) wird ihre Mutter sehr wütend.	ii) Wenn Stefan die Hausaufgaben vergisst,	b) in einem tollen Fußballclub zu spielen.	iii) Stefan freut sich darauf,	c) in die Schule zu gehen.	<p>1x3=3</p> <p>1x4=4</p>
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ii) Wenn Stefan die Hausaufgaben vergisst,	b) in einem tollen Fußballclub zu spielen.							
iii) Stefan freut sich darauf,	c) in die Schule zu gehen.							

	<p>d) Wann wird die Situation manchmal traurig?</p> <p><b>C. Bilde Sätze.</b></p> <p>a) dass b) krank c) verdienen</p>	1x3=3
<p><b>Section B - SCHREIBEN (Writing)</b> <b>(10 marks)</b></p>		
III.	<p><b>E-Mail schreiben:</b></p> <p>Dein Freund Hans will dich im August besuchen, aber du musst im August mit der Klasse eine Reise nach Stuttgart machen. Du hast am 20.09. Geburtstag. Schreib eine E - mail an Hans. Bitte ihn, im September zu kommen. Schreib eine E - mail in 30 - 40 Wörter</p>	5
IV.	<p><b>E-Mail schreiben:</b></p> <p>Deine deutsche Freundin Silke hat dich in ihrer letzten Mail über deine Schule gefragt. Schreib</p> <p>Ihr eine E-Mail und erzähl von deiner Schule. Schreib etwas zu den folgenden Punkten:</p> <ul style="list-style-type: none"> <li>• Welche Schule besuchst du? Wie lange dauert die Schule?</li> <li>• Wann und wie viele Pausen hast du in der Schule?</li> <li>• hat die Schule eine Kantine? Was kann man da kaufen?</li> <li>• Wie findest du das Essen in der Schulkantine?</li> </ul>	5
<p><b>Section C - GRAMMAR (Applied Grammar)</b> <b>(30 marks)</b></p>		
V.	<p><b>Setze die Konnektoren ein.</b></p> <p>1. _____ ich genug Geld habe, will ich mir kein neues Auto kaufen. 2. Herr Saha hat mir gesagt, _____ er spät zu Party kommt. 3. Ich fliege im Herbst nach Berlin, _____ ich genug Geld habe. 4. Wir möchten wissen, _____ wir Bald einen Test haben. 5. Ich denke, _____ die Lehrerin uns helfen wird.</p>	1x5=5
VI.	<p><b>Ergänze die Präpositionen.</b></p> <p>1. Wo liegt die Post? - Da, gleich _____ die Ecke. [um/in/an] 2. Entschuldigung! Wie komme ich am besten _____ Post? [zum/zur/auf] 3. Gehen wir jetzt nach Hause oder _____ Lena? [um/in/zu]</p>	1x6=6

	<p>4. Gehst du gern _____ Kino? [ins/ans/zum]</p> <p>5. Hallo Daniel Du siehst ja toll aus! Warst du _____ Frisör? [am/beim/mit]</p> <p>6. Wann kommst du heute _____ Hause zurück? [von/nach/zu]</p>											
VII.	<p><b>Verbinden die zwei Sätze.</b></p> <p>1. Peter fragt. Hast du genug Geld?</p> <p>2. Ich weiß nicht. Es gibt Probleme bei der Arbeit.</p> <p>3. Ich möchte wissen. Wie oft bist du zu Partys gegangen?</p> <p>4. Es ist unsicher. Die Kinder gehen heute mit.</p>	1x4=4										
VIII.	<p><b>Was passt zusammen?</b></p> <table border="1"> <tr> <td>1. Frau Stein zog nach Barcelona um.</td> <td>a. obwohl er für eine Prüfung lernen muss.</td> </tr> <tr> <td>2. Mia hatte hohes Fieber,</td> <td>b. ob seine Frau das Auto genommen hat.</td> </tr> <tr> <td>3. Mein Bruder weiß nicht,</td> <td>c. nachdem sie Spanisch gelernt hatte.</td> </tr> <tr> <td>4. Karl will ausgehen,</td> <td>d. als sie von dem Unterricht gekommen ist.</td> </tr> <tr> <td></td> <td></td> </tr> </table>	1. Frau Stein zog nach Barcelona um.	a. obwohl er für eine Prüfung lernen muss.	2. Mia hatte hohes Fieber,	b. ob seine Frau das Auto genommen hat.	3. Mein Bruder weiß nicht,	c. nachdem sie Spanisch gelernt hatte.	4. Karl will ausgehen,	d. als sie von dem Unterricht gekommen ist.			1x4=4
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IX.	<p><b>Ergänze die passenden Adjektive in den richtigen Formen.</b></p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>schwierig - alt - gern - hässlich - kurz - viel – laut-gut</p> </div> <p>1. Mein Handy ist _____ als Kevins Handy. Ich habe es ein Jahr und er hat es fünf Monate.</p> <p>2. Die neue Lampe gefällt mir überhaupt nicht. Sie ist _____ als die alte Lampe.</p> <p>3. Ich bin nicht gut in Mathematik. Ich finde Mathe _____ als Deutsch</p> <p>4. Im Winter sind die Tage in Deutschland _____ als die Nächte.</p> <p>5. Ich sehe gern Fußball im Fernsehen. Mein Bruder sieht Fußball aber noch _____ als ich.</p> <p>6. Mein Bruder spielt gut Tennis, aber meine Schwester spielt noch _____ als er.</p> <p>7. In der A-Klasse sind 35 Schüler es und ist _____ als in der B-Klasse. Dort sind nur 22 Schüler.</p> <p>8. Kannst du heute einkaufen gehen? Du hast _____ Zeit als ich.</p>	1x8=8										

X.	<p><b>Ergänze die Präteritum:</b></p> <p>a. Als ich 3 Jahre alt war, _____ Ich schon klavier spielen . (können)</p> <p>b. Am ersten schultag _____ Ich schon streit mit meinen Klassenkameraden. (haben)</p> <p>c. Als kind _____ Hans Ingenieur werden . (will)</p> <p>d. Erick _____ nach Spanien _____(umziehen)</p> <p>e. Im Sommer _____ wir in Berlin . (fahren)</p> <p>f. Der Director _____ von Zu Hause (kommen)</p>	1.5x6=3
<p><b>Section D - (Textbook)</b> <b>(20 marks)</b></p>		
XI.	<p><b>Handy gestohlen - Jugendlicher macht sich mit App auf die Suche</b></p> <p>Letzten Freitag war Simon M. mit ein paar Freunden im West Bad in München-Pasing. Eigentlich sollte immer einer von ihnen auf Geld und Handys aufpassen. Aber dann gingen sie alle zusammen schwimmen. Eine halbe Stunde später kamen sie zu ihren Sachen zurück und Simons Handy fehlte. „Gelegenheit macht Diebe“, wie man sagt. „Ich habe mein Handy gleich angerufen, aber nichts gehört“, erzählte Simon. Das Handy war ausgeschaltet. Also gingen die Jugendlichen zur Polizei und machten eine Anzeige. Dann fuhren sie nach Hause. Doch Simon ist ein richtiger Computer-Fan. Er hat auf seinem Smartphone eine App installiert, die ein Signal sendet, auch wenn jemand eine andere SIM-Karte einlegt. Er setzte sich zu Hause an seinen Computer und wartete. Und wirklich schaltete der Dieb irgendwann das Handy ein. Das war am Samstagabend. Er legte seine eigene SIM-Karte ein und ging mit Simons Smartphone ins Netz. So konnte Simon sich von seinem Computer auf das gestohlene Handy einloggen. Die Handykamera machte ein Foto und Simon sah, dass der Dieb Bayern-München-Bettwäsche hat.</p> <p><b>A. Richtig oder falsch:</b></p> <p>a. Simon hat auf seinem Handy eine App installiert, die die Polizei informiert, wenn jemand eine andere SIM-Karte einlegt.</p> <p>b. Simon hat sein Handy sofort angerufen, aber es war ausgeschaltet.</p> <p>c. Am Samstag hat der Dieb Simons Handy eingeschaltet.</p> <p>d. Mit der App war es möglich, ein Foto mit dem Handy zu machen.</p> <p>e. Im Schwimmbad hat ein Dieb Simons Handy gestohlen.</p> <p><b>B. Welche Verb passt nicht:</b></p> <p>1. <b>Geld:</b> sparen, installieren, ausgeben</p> <p>2. <b>die Polizei:</b> aufpassen, informieren, anrufen</p> <p>3. <b>das Portemonnaie:</b> verlieren, stehlen, ausschalten</p>	<p>1x5=5</p> <p>1x5=5</p>



	<p>4. <b>das Handy:</b> einlegen, einschalten, ausschalten</p> <p>5. <b>den Dieb:</b> finden, stehlen, suchen</p>	
XII.	<p><b>Lies den Text und Antwort die Fragen:</b></p> <p>Lehrer, Schüler und Eltern probieren in vielen Schulen in Köln Alternativen zum bisherigen Kantinenangebot und geben Noten von 1 bis 6 für Aussehen, Geschmack und Qualität der neuen Gerichte. Auf die Frage, wo es denn besser schmeckt, zu Hause oder in der Kantine, sieht Testesser Robin Hörmann in der Gesamtschule Rodenkirchen erst kurz zu seiner Mutter Sandra. Sie ist auch Testesserin und vom neuen Schulessen positiv überrascht. „Genauso gut wie zu Hause“, sagt Robin dann, und seine Mutter lacht: „Er hat total recht!“</p> <p>Jeder glaubt, dass Kinder und Jugendliche Pommes und Pizza lieben, also eher die fetten, nicht sehr gesunden Gerichte. Aber das stimmt nicht. Auf den Fragebögen der Testesser sieht man, dass gesunde Gerichte wie Karotten oder Kartoffelsuppe den Schülern ebenso gut schmecken wie Pommes oder Nudeln mit Soße. Nur frisch müssen die Zutaten sein, gut gekocht und schön serviert!</p> <p>„Unser Essen soll immer besser werden“, sagt auch Rosemarie Gassner von der Gutenbergschule. „Da helfen uns die ehrlichen Antworten unserer Testesser sehr. Und für gutes Essen zahlen die meisten Eltern gern ein bisschen mehr nach dem Motto: „Lieber gut als nur günstig.“</p> <p><b>A. Antwort die folgenden Fragen:</b></p> <ol style="list-style-type: none"> <li>Welche Gerichte sind bei den Kindern und Jugendlichen beliebt?</li> <li>Wo wird das Testessen gemacht?</li> <li>Was machen die Testesser?</li> <li>Warum machen die Schüler Testessen?</li> <li>Wie können die Testesser dabei helfen?</li> </ol> <p><b>B. Richtig oder falsch:</b></p> <ol style="list-style-type: none"> <li>Kinder mögen keine Pommes und Pizza.</li> <li>Kartoffelsuppe und Karotten Essen die Kinder und Jugendlichen nur ungern.</li> <li>Frische zutaten spielen eine große Rolle im Geschmack der Gerichte.</li> <li>Die Eltern sind bereit, für gutes Essen mehr Geld auszugeben.</li> <li>Sandra sagt das Robin ist total recht.</li> </ol>	<p>1x5=5</p> <p>1x5=5</p>



# DELHI PUBLIC SCHOOL

## SAIL TOWNSHIP, RANCHI

### HALF YEARLY EXAMINATION (2022-23)

Class - X  
Time - 3 Hours

Subject - Hindi  
Maximum Marks- 80

- सामान्य निर्देश :- (i) इस प्रश्न पत्र में दो खंड हैं - खंड 'अ' और 'ब'।  
(ii) दोनों खंडों के प्रश्नों के उत्तर क्रमानुसार अपने शब्दों में लिखें।

#### खंड - 'अ'

प्रश्न 1. (क) निम्नलिखित गद्यांश को ध्यानपूर्वक पढ़कर पूछे गए प्रश्नों के उत्तर लिखें :- (5X1=5)

पुस्तकें व्यक्ति की सबसे उत्तम मित्र होती हैं। जब हम कभी अकेलापन का अनुभव करते हैं, तो वे तुरंत हमारे मन बहलाने के लिए प्रस्तुत रहती हैं। अन्य मित्र भले ही धोखा दे जाएँ, वे कभी धोखा नहीं देतीं। वे हमें आनंद-लोक की सैर कराती हैं, उत्तम ज्ञान देती हैं, हमारे दृष्टिकोण को विस्तृत करती हैं, हमारी निराशा और हताशा को हर लेती हैं। वे कभी कोई ऐसी माँग नहीं करतीं, जिसमें धन अथवा समय बर्बाद होता हो। व्यक्ति अपनी रुचि, आवश्यकता तथा विषय के अनुसार उन्हें चुन सकता है। एक बार हमारे पास आ जाने के बाद वे हमें छोड़कर अन्यत्र नहीं जातीं। वे कभी शिकायत भी नहीं करती, न ही ताने और उलाहने देती हैं। वे हमें ऐसे संसार में ले जाती हैं, जहाँ सारे भाव हैं, रस हैं, आनंद हैं। ये कभी पीड़ा जगाती हैं, तो कभी घाव का मरहम बन जाती हैं। कभी हँसाती हैं, तो कभी रुलाती हैं। कभी भाव विभोर कर देती हैं, तो कभी चिंतन की एक नई दिशा दिखा जाती हैं। सचमुच, अद्भुत है इनका साथ और संसार।

- (i) कौन कभी धोखा नहीं देतीं?  
(ii) पुस्तकें क्या हर लेती हैं?  
(iii) पुस्तकें किस तरह की माँग नहीं करतीं?  
(iv) व्यक्ति अपनी रुचि, आवश्यकता तथा विषय के अनुसार किन्हें चुन सकता है?  
(v) प्रस्तुत गद्यांश का एक उचित शीर्षक लिखें।

(ख) निम्नलिखित गद्यांश को ध्यानपूर्वक पढ़कर पूछे गए प्रश्नों के उत्तर लिखें :- (5X1=5)

संस्कृतियों के निर्माण में एक सीमा तक देश और जाति का योगदान रहता है। संस्कृति के मूल उपादान तो प्रायः सभी सुसंस्कृत और सभ्य देशों में एक सीमा तक देश और जाति का योगदान रहता है। संस्कृति के मूल उपादान तो प्रायः सभी सुसंस्कृत और सभ्य देशों में एक सीमा तक समान रहते हैं, किंतु बाह्य उपादानों में अंतर अवश्य आता है। राष्ट्रीय या जातीय संस्कृति का सबसे बड़ा योगदान यही है कि वह हमें अपने राष्ट्र की परंपरा से संपृक्त बनाती है। अपनी रीति - नीति की संपदा से विच्छिन्न नहीं होने देती। आज के युग में राष्ट्रीय एवं जातीय संस्कृतियों के मिलन के अवसर अति सुलभ हो गए हैं। संस्कृतियों का पारस्परिक संघर्ष भी शुरू हो गया है। कुछ ऐसे विदेशी प्रभाव हमारे देश पर पड़ रहे हैं, जिनके आतंक ने हमें स्वयं अपनी संस्कृति के प्रति शंकालु बना दिया है। हमारी आस्था डिगने लगी है, यह हमारी वैचारिक दुर्बलता का फल है। अपनी संस्कृति को छोड़ विदेशी संस्कृति के विवेकहीन अनुकरण से हमारे राष्ट्रीय गौरव को जो ठेस पहुँच रही है, वह किसी राष्ट्रप्रेमी जागरूक शक्ति से छिपी नहीं है। भारतीय संस्कृति में त्याग और ग्रहण की अद्भुत क्षमता रहती है। अतः आज के वैज्ञानिक युग में हम किसी भी विदेशी संस्कृति के जीवंत तत्वों को ग्रहण करने में पीछे नहीं रहना चाहेंगे, किंतु अपनी सांस्कृतिक निधि की उपेक्षा करके नहीं। यह परावलंबन राष्ट्र की गरिमा के अनुरूप नहीं है। यह स्मरण रखना चाहिए कि सूर्य की आलोक प्रदायिनी किरणों से पौधे को चाहे जितनी जीवनी शक्ति मिले, किंतु अपनी जमीन और अपनी जड़ों के बिना कोई पौधा जीवित नहीं रह सकता। अविवेकी अनुकरण, अज्ञान का ही पर्याय है।

- (i) संस्कृतियों के निर्माण में एक सीमा तक किसका योगदान रहता है?  
(ii) भारतीय संस्कृति में किसकी अद्भुत क्षमता रही है?  
(iii) अविवेकी अनुकरण क्या है?  
(iv) आज के युग में राष्ट्रीय एवं जातीय संस्कृतियों के मिलन के अवसर कैसे हो गए हैं?  
(v) राष्ट्रीय या जातीय संस्कृति का सबसे बड़ा योगदान क्या है?

प्रश्न 2. निम्नलिखित वाक्यों में रेखांकित पदबंधों के भेद का सही नाम लिखिए :- (किन्हीं चार का उत्तर लिखें।)

(4X1=4)

- (i) दिन-रात परिश्रम करने वाले छात्र ही परीक्षा में सफल होते हैं।  
(क) सर्वनाम पदबंध (ख) संज्ञा पदबंध (ग) अव्यय पदबंध (घ) क्रिया पदबंध
- (ii) शेर की तरह गरजने वाले आप चुप क्यों हैं?  
(क) संज्ञा पदबंध (ख) क्रिया पदबंध (ग) विशेषण पदबंध (घ) सर्वनाम पदबंध
- (iii) पार्क में एक सुंदर बच्चा खेल रहा है।  
(क) संज्ञा पदबंध (ख) क्रिया-विशेषण पदबंध (ग) क्रिया पदबंध (घ) सर्वनाम पदबंध
- (iv) कारखाने में काम करने वाला मज़दूर अपने घर चला गया।  
(क) संज्ञा पदबंध (ख) विशेषण पदबंध (ग) सर्वनाम पदबंध (घ) क्रिया पदबंध
- (v) दो किलो ताजे और मीठे कश्मीरी सेब ले आओ।  
(क) संज्ञा पदबंध (ख) क्रिया-विशेषण पदबंध (ग) विशेषण पदबंध (घ) अव्यय पदबंध

प्रश्न 3. निम्नलिखित प्रश्नों के सही उत्तर दिए गए विकल्पों से चुनकर लिखें :- (रचना के आधार पर वाक्य भेद पहचाने)  
(किन्हीं चार का उत्तर लिखें।)

(4X1=4)

- (i) जब-जब वह यहाँ आता है, तब-तब पढ़ाई के बारे में चर्चा करता है। रचना के आधार पर वाक्य-भेद  
छाँटिए -  
(क) सरल वाक्य (ख) संयुक्त वाक्य (ग) मिश्र वाक्य (घ) विधानवाचक वाक्य
- (ii) सुरेश ने परीक्षा पास की और उसे नौकरी मिल गई।  
(क) सरल वाक्य (ख) मिश्रित वाक्य (ग) प्रश्नवाचक वाक्य (घ) संयुक्त वाक्य
- (iii) जब अविनाश बाबू ने झंडा गाड़ा, तब पुलिस ने उनको पकड़ लिया।  
(क) प्रश्नवाचक वाक्य (ख) मिश्र वाक्य (ग) संयुक्त वाक्य (घ) सरल वाक्य
- (iv) कृपया सभी यहाँ आकर सुनें।  
(क) मिश्रित वाक्य (ख) संयुक्त वाक्य (ग) विधानवाचक वाक्य (घ) सरल वाक्य
- (v) निम्नलिखित वाक्यों में से सरल वाक्य छाँटिए -  
(क) हमने गीता पाठ सुना और आनंद को पाया।  
(ख) हमने गीता पाठ सुनते ही आनंद पाया।  
(ग) जब हमने गीता पाठ सुना, तब हमें आनंद मिला।  
(घ) जैसे ही हमने गीता पाठ सुना, वैसे ही हमें आनंद मिला।

प्रश्न 4. निम्नलिखित समस्त पदों में उत्तर का सही विकल्प चुनकर लिखिए :- (किन्हीं चार का उत्तर लिखें।)

(4X1=4)

(i) हाथोंहाथ (सामासिक पद का विग्रह है)

(क) हाथ से हाथ तक (ख) हाथ ही हाथ में (ग) हाथ और हाथ (घ) हाथ या हाथ

(ii) घुड़दौड़ (सामासिक पद का विग्रह है)

(क) घोड़ों की दौड़ (ख) घोड़ों में दौड़ (ग) घोड़ें और दौड़ (घ) दौड़ के लिए घोड़े

(iii) मुरलीधर

(क) द्विगु समास (ख) बहुव्रीहि समास (ग) तत्पुरुष समास (घ) द्वंद्व समास

(iv) शताब्दी

(क) द्वंद्व समास (ख) द्विगु समास (ग) तत्पुरुष समास (घ) अव्ययीभाव समास

(v) किस समास में दोनों पद प्रधान होते हैं?

(क) तत्पुरुष समास (ख) द्वंद्व समास (ग) कर्मधारय समास (घ) बहुव्रीहि समास

प्रश्न 5. निम्नलिखित वाक्यों में रिक्त स्थानों की पूर्ति उचित मुहावरे से कीजिए :- (किन्हीं चार का उत्तर लिखें।)

(4X1=4)

(i) ताजमहल की भव्यता को देखकर सभी पर्यटक ----- दबा लेते हैं।

(ii) पुलिस की सतर्कता के कारण इस बस्ती में चोरों की -----।

(iii) जब से उसे बैंक की नौकरी मिली है, तब से उसके पैर -----।

(iv) पुत्र के तीसरी बार कक्षा में फेल हो जाने की खबर सुनकर माता-पिता के -----।

(v) अंग्रेजों ने भारतीय जनता पर अनगिनत -----।

प्रश्न 6. पठित पद्यांश को ध्यानपूर्वक पढ़कर पूछे गए प्रश्नों के सही उत्तर विकल्पों में से चुनकर लिखें :- (5X1=5)

हरि आप हरो जन री भीर।

द्रौपदी री लाज राखी, आप बढ़ायो चीर।

भगत कारण रूप नरहरि, धर्यो आप सररीर।

बूढ़तो गजराज राख्यो, काटी कुण्जर पीर।

छासी मीराँ लाल गिरधर, हरो म्हारी भीर।।

(i) लोगों के कष्ट कौन दूर करता है?

(क) कृष्ण (ख) गजराज (ग) द्रौपदी (घ) मीराबाई

(ii) पानी में कौन डूबता जा रहा था?

(क) द्रौपदी (ख) मीराबाई (ग) प्रह्लाद (घ) गजराज

(iii) गिरधर की दासी कौन है?

(क) नरहरि (ख) द्रौपदी (ग) मीराबाई (घ) प्रह्लाद

(iv) श्रीकृष्ण ने द्रौपदी की लाज कैसे बचाई थी?

(क) खाना खिलाकर (ख) चीर (वस्त्र) बढ़ाकर (ग) नौकरी देकर (घ) घर दिलवाकर

- (v) श्रीकृष्ण ने नरसिंह का रूप धारण क्यों किया?  
 (क) द्रौपदी की लाज बचाने के लिए (ख) गजराज को डूबने से बचाने के लिए  
 (ग) मीराबाई का बाग लगाने के लिए (घ) भक्त प्रह्लाद की रक्षा करने के लिए

प्रश्न 7. निम्नलिखित प्रश्नों के सही उत्तर दिए गए विकल्पों में से चुनकर लिखें :-

(2X1=2)

- (i) मीराबाई कैसी साड़ी पहनकर श्रीकृष्ण के दर्शन पाना चाहती हैं?  
 (क) नीली (ख) पीली (ग) केसरिया (घ) हरी
- (ii) कबीर दास स्वयं को क्या कहते हैं?  
 (क) सुखिया (ख) दास (ग) स्वामी (घ) दुखिया

प्रश्न 8. निम्नलिखित गद्यांश को ध्यानपूर्वक पढ़कर पूछे गए प्रश्नों के सही उत्तर विकल्पों में से चुनकर लिखें :-

(5X1=5)

कई सालों से बड़े-बड़े बिल्डर समंदर को पीछे धकेल कर उसकी जमीन हथिया रहे थे। बेचारा समंदर लगातार सिमटता जा रहा था। पहले उसने अपनी फैली हुई टाँगे समेटीं, थोड़ा सिमटकर बैठ गया। फिर जगह कम पड़ी तो उकड़ूँ बैठ गया। फिर खड़ा हो गया ——— जब खड़े रहने की जगह कम पड़ी तो उसे गुस्सा आता है। परंतु आता है तो रोकना मुश्किल हो जाता है, और यही हुआ, उसने एक रात अपनी लहरों पर दौड़ते हुए तीन जहाजों को उठाकर बच्चों की गेंद की तरह तीन दिशाओं में फेंक दिया। एक वर्ली के समंदर के किनारे पर आकर गिरा, दूसरा बांद्रा में कार्टर रोड के सामने आँधे मुँह और तीसरा गेट-वे-ऑफ इंडिया पर टूट फूट कर सैलानियों का नजारा बना बावजूद कोशिश, वे फिर से चलने फिरने के काबिल नहीं हो सके।

- (i) समुद्र को गुस्सा आने का क्या कारण था?  
 (क) ज्यादा जहाज चलने लगे थे।  
 (ख) जलीय जीव जंतु कम होने लगे थे।  
 (ग) समुद्र को ढकेलकर बिल्डर वहाँ मकान बनाने लगे थे।  
 (घ) समुद्र के महत्त्व को सब नकार रहे थे।

- (ii) समुद्र ने अपना क्रोध किस प्रकार व्यक्त किया?  
 (क) अपनी लहरों पर दौड़ते तीन जहाजों को तीन दिशाओं में फेंक दिया।  
 (ख) अपनी लहरों पर दौड़ते चार जहाजों को चार दिशाओं में फेंक दिया।  
 (ग) अपनी लहरों पर दौड़ते दो जहाजों को तीन दिशाओं में फेंक दिया।  
 (घ) अपनी लहरों पर दौड़ते तीन जहाजों को दो दिशाओं में फेंक दिया।

(iii) 'पहले उसने अपनी फैली हुई टाँगे समेटीं, थोड़ा सिमटकर बैठ गया।'— इनका सही संयुक्त वाक्य है।

- (क) अपनी फैली हुई टाँगे समेटकर वह सिमटकर बैठ गया।  
 (ख) पहले उसने अपनी फैली हुई टाँगे समेटीं और सिमटकर बैठ गया।  
 (ग) जब उसने अपनी फैली हुई टाँगे समेटीं, तब वह थोड़ा सिमटकर बैठ गया।  
 (घ) उपर्युक्त सभी सही हैं।

(iv) गद्यांश के लेखक हैं —

- (क) निदा फैजल (ख) निदा फहजल (ग) निदा फाजली (घ) निदा फारूखी

(v) 'सैलानी' शब्द का सही अर्थ चुनिए —

- (क) सैर करना (ख) सैलाब (ग) सालन (घ) पर्यटक

प्रश्न 9. दिए गए प्रश्नों के सही उत्तर विकल्पों में से चुनकर लिखिए :-

(2X1=2)

(i) शैतान और शाहेरूम का अहंकार करने से क्या हाल हुआ?

(क) दोनों ने खूब धन कमाया।

(ख) दोनों को स्वर्ग में स्थान मिला।

(ग) दोनों का समाज में बहुत आदर था।

(घ) दोनों का नामों निशान मिट गया।

(ii) युवती (वामीरो) किस प्रकार का गीत गा रही थी।

(क) शृंगार

(ख) करुण

(ग) भयावह

(घ) वात्सल्य

### खंड - 'ब'

प्रश्न 10. निम्नलिखित प्रश्नों के उत्तर लिखें :- (किन्हीं दो प्रश्नों के)

(3X2=6)

(क) सुभाष बाबू के जुलूस में स्त्री समाज की क्या भूमिका थी?

(ख) छोटे भाई ने बड़े भाई साहब के नरम व्यवहार का क्या लाभ उठाया?

(ग) रूढ़ियाँ जब बंधन बन बोझ लगने लगे तो उनका टूट जाना ही क्यों अच्छा है? पाठ के आधार पर तर्क सहित उत्तर लिखें।

प्रश्न 11. निम्नलिखित प्रश्नों के (किन्हीं दो) उत्तर लिखें :-

(3X2=6)

(क) बर्षत प्रदेश में पावस' के आधार पर 'है टूट पड़ा भू पर अंबर' पंक्ति का भाव स्पष्ट कीजिए।

(ख) 'अहंकार का भाव भक्ति मार्ग की सबसे बड़ी बाधा है।' कबीर की साखी के आधार पर सिद्ध कीजिए।

(ग) कंपनी बाग में रखी तोप क्या सीख देती है? कविता के आधार पर बताइए।

प्रश्न 12. निम्नलिखित प्रश्नों के (किन्हीं दो) उत्तर लिखें :-

(3X2=6)

(क) हरिहर काका गूंगेपन का शिकार क्यों हो गए थे?

(ख) अनपढ़ होते हुए भी हरिहर काका दुनिया की बेहतर समझ कैसे रखते थे?

(ग) हरिहर काका के प्रति लेखक की आसक्ति के क्या कारण थे?

प्रश्न 13. दिए गए संकेत बिन्दुओं के आधार पर निम्नलिखित में से किसी एक विषय पर 100-150 शब्दों का अनुच्छेद लिखें :-

(5)

(क) विज्ञापन और हमारा जीवन  
संकेत बिंदु -

- विज्ञापन का उद्देश्य
- प्रकार
- सामाजिक दायित्व

(ख) जल ही जीवन है  
संकेत बिंदु -

- पानी का अंधाधुंध दोहन
- पीने के पानी का अभाव
- जल-संरक्षण आवश्यक

(ग) समय - नियोजन  
संकेत बिंदु -

- समय धन के समान
- समय विभाजन आवश्यक
- समय विभाजन से सफलता निश्चित

प्रश्न 14. अपने क्षेत्र में सार्वजनिक पुस्तकालय एवं वाचनालय खोलने की प्रार्थना करते हुए शिक्षा विभाग के सचिव को पत्र लिखें।

(5)

अथवा

पेयजल की समस्या की ओर सरकार का ध्यान दिलाने के लिए किसी समाचार पत्र के संपादक के नाम पत्र लिखें।

प्रश्न 15. भारतीय विकास परिषद् की ओर से स्कूल में आयोजित 'अंतर्विद्यालयी विज्ञान प्रश्नोत्तरी प्रतियोगिता' के लिए लगभग 50 शब्दों में सूचना लिखिए। (4)

अथवा

हास्य कवि सम्मेलन हेतु अध्यक्ष की ओर से कादंबरी अपार्टमेंट के निवासियों के लिए लगभग 50 शब्दों में सूचना लिखें।

प्रश्न 16. पेट के समस्त रोगों में लाभकारी 'उदर सखा चूर्ण' के लिए 50 शब्दों में एक विज्ञापन तैयार कीजिए। (3)

अथवा

'वत्सल प्ले स्कूल' की विशेषताएँ बताते हुए 50 शब्दों में विज्ञापन लिखें।

प्रश्न 17. नीचे दिए गए प्रस्थान बिंदुओं के आधार पर लगभग 120 शब्दों में एक लघु कथा लिखें :- (5)

राकेश और रमेश दोनों भाइयों के बीच मनमुटाव के कारण दोनों परिवारों के बीच कोई संबंध नहीं है। र राकेश की बेटी राधा रमेश के दोनों बच्चों पिंटू और चिंटू से बहुत प्यार करती है। वह उन्हें गुब्बारे खरीदकर देती है। पिंटू और चिंटू की माँ उन गुब्बारों को बाहर फेंक देती है। राधा सीढ़ियों से गिर गहरी चोटिल हो जाती है।

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# DELHI PUBLIC SCHOOL

## SAIL TOWNSHIP, RANCHI

### HALF YEARLY EXAMINATION (2022-23)

**Class - X**  
**Time - 2 Hours**

**Subject -Information Technology**  
**Maximum Marks- 50**

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#### 1. Multiple Choice Questions:

[1 x 10 = 10]

- (i) The way of communication in which message is conveyed in imagery form.
- (a) Visual Communication
  - (b) Verbal Communication
  - (c) Non-Verbal Communication
  - (d) None of these
- (ii) One of the rule of 7Cs of communication in which the meaning of the message should be clear so that audience understand easily what is to be conveyed.
- (a) Clarity
  - (b) Concrete
  - (c) Concise
  - (d) Courteous
- (iii) The quality of the person to organize and monitor ones own behaviour and willingness of doing things.
- (a) Self Motivation
  - (b) Self Regulation
  - (c) Self Awareness
  - (d) All of these
- (iv) A network security device or system that monitors and safeguard the network traffic based on the defined security rules.
- (a) Hub
  - (b) Switch
  - (c) Firewall
  - (d) Router
- (v) An inbuilt document that contains pre-defined formatting styles, graphics, tables, objects and other information that is commonly used in a particular pattern.
- (a) Mail Merge
  - (b) Anchors
  - (c) Styles
  - (d) Template
- (vi) This option sends the selected object one layer down in the screen.
- (a) Send Backward
  - (b) Send to Back
  - (c) Bring to Front
  - (d) Bring Forward
- (vii) Duplication or repetition of data is known as:
- (a) Sharing of data
  - (b) Inconsistency
  - (c) Data Redundancy
  - (d) Data Sharing
- (viii) A formal presentable printed document that lists data in a formatted manner is known as:
- (a) Query
  - (b) Form
  - (c) Report
  - (d) None of these



- (ix) The statement used for modifying records in a database.
  - (a) UPDATE
  - (b) ALTER
  - (c) DELETE
  - (d) DROP
- (x) This command deletes all the entries or data from the table but keeps the table structure secured in the database.
  - (a) DROP
  - (b) TRUNCATE
  - (c) DELETE
  - (d) REVOKE

**2. Answer the following questions:**

- (i) List the measures to overcome Barrier in Communication. [2]
- (ii) How working independently benefits us? [2]
- (iii) Describe any four functions of an Operating System. [2]
- (iv) How Operating System acts as messenger between hardware and application program? [2]
- (v) What happens when a computer virus infects your system? State any four points in support of your answer. [2]
- (vi) Write the steps to perform the following actions:
  - (a) Apply a style to the selected Text. [2]
  - (b) To insert graphic from a File [2]
  - (c) To arrange an image on the top of any graphics [2]
- (vii) What are the benefits of using DBMS? [2]
- (viii) Can there be multiple primary keys in a table? Justify your answer. [2]
- (ix) What do you mean by Data Definition Language (DDL)? Define any two DDL commands. [2]
- (x) Write the output of the following SQL query: [2]

TABLE: ACCESSORIES			
NO	NAME	PRICE	ID
A01	MOTHER BOARD	12000	S01
A02	HARD DISK	5000	S01
A03	KEYBOARD	500	S02
A04	MOUSE	300	S01
A05	MOTHER BOARD	13000	S02

- (a) SELECT \* FROM ACCESSORIES
- (b) SELECT \* FROM ACCESSORIES WHERE PRICE >= 5000
- (c) SELECT \* FROM ACCESSORIES ORDER BY PRICE ASC
- (d) SELECT NAME FROM ACCESSORIES WHERE NAME = "MOTHER BOARD"

**3. Answer the following questions:**

- (a) State the significance of 'Mail Merge' in digital documentation. What are the steps to be followed to perform 'Mail Merge'. [3]
- (b) Explain the different styles of formatting. [3]
- (c) What is the relationship between Primary Key and Foreign Key. Explain with example. [3]
- (d) The management of a medical store decides to computerize its inventory. [3]
- (i) Suggest any two tables which must be present in the database. You can also suggest fields of the tables along with their data types.
- (ii) Mention any two benefits that the management will have by computerizing the inventory.

**4. Answer the questions on the basis of the following table:**

[4]

<b>TABLE: STORE</b>		
<b>STORE_NO</b>	<b>STORE_NAME</b>	<b>AREA</b>
S101	Compunik Solution	Jawahar Nagar
S102	HCL	Karol Bagh
S103	Tezz Computers	CP
S104	Micro Computers	Nehru Place
S105	Digital Solutions	CP

- (i) To create and insert data as per the given table.
- (ii) To display STORE\_NO and STORE\_NAME of all Stores located in CP.
- (iii) Update Area of 'S102' to 'Rouse Avenue'
- (iv) To arrange the database table on the basis of the field STORE\_NAME in descending order.
-



**DELHI PUBLIC SCHOOL**  
**SAIL TOWNSHIP, RANCHI**  
**HALF YEARLY EXAMINATION (2022-23)**

**Class - X**  
**Time - 3 Hours**

**Subject - Mathematics**  
**Maximum Marks- 80**

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**GENERAL INSTRUCTIONS**

1. This question paper consists of two parts A and B.
  2. Part A has two sections- Section I and Section II.
    - a) Section I has 16 questions of 1 mark each.
    - b) Section II has 4 questions on case study. Each case study has 5 case based sub parts. An examinee has to attempt any 4 out of 5 sub parts.
  3. Part B has question number 21 to 26 of 2 marks each, question number 27 to 33 of 3 marks each and question number 34 to 36 of 5 marks each.
  4. Internal choices have been provided where ever applicable.
  5. Use of calculator or any other electronic device is not allowed.
- 

**PART-A**

**SECTION-I**

1. Find the ratio of LCM and HCF of the least composite and least prime numbers .  
OR  
Find the HCF of smallest prime number and the smallest composite number?
2. If 2 is a zero of polynomial  $f(x) = ax^2 - 3(a - 1)x - 1$ , then find the value of a.
3. Write a quadratic polynomial whose zeros are  $\frac{1}{4}$  and  $\frac{-1}{2}$
4. Find the distance between the points  $P(-6,7)$  and  $Q(-1, -5)$ .
5. In  $\Delta ABC$ ,  $\angle C = 5\angle B = 3(\angle A + \angle B)$ , find all angles of  $\Delta ABC$ .
6. Solve the pair of equations by using elimination method:  $8x + 5y = 11$ ,  $x + y = 4$ .
7. Find the value of 'a' for which the lines  $x=1$ ,  $y=2$  and  $a^2x + 2y - 20=0$  are concurrent.
8. If  $\Delta ABC \sim \Delta DFE$ ,  $\angle A = 30^\circ$ ,  $\angle C = 50^\circ$ ,  $AB = 5cm$ ,  $AC = 8cm$  and  $DF = 7.5cm$ , then find  $DE$  and  $\angle F$ .  
OR  
In  $\Delta ABC$ ,  $P$  and  $Q$  are points on  $AB$  and  $AC$  such that  $PQ \parallel BC$ . If  $AP = 4cm$ ,  $AQ = 3cm$  and  $PB = 2cm$ , then find the value of  $AC$ .
9. Two dice are thrown simultaneously. Find the probability of getting a multiple of 2 on one die and a multiple of 3 on the other die.

OR

Cards numbered 1, 2, 3, 4, 5, ....., 17 are put in a box and mixed thoroughly. One person draws a card from the box. Find the probability that the number on the card is a multiple of 3 or 5.

10. If  $\tan A = \frac{3}{4}$ , Find  $\sin A \cdot \cos A$
11. Find the value of  $(\sin 30^\circ + \cos 30^\circ) - (\sin 60^\circ + \cos 60^\circ)$ .
12. Find the discriminant of the quadratic equation  $x^2 - 4x = -1$ .
13. For what values of  $k$ , the roots of the equation  $x^2 + 4x + k = 0$  are real ?
14. If  $\frac{1}{2}$  is a root of the equation  $x^2 + kx - \frac{5}{4} = 0$ , then find the value of  $k$ .
15. How many terms are there in the AP 3, 6, 9, 12, ....., 111.

OR

Check whether 200 is a term of the list of numbers 7, 11, 15, 19, .....

16. The areas of the two circles are in the ratio of 9:4. Find the ratio between their circumferences.

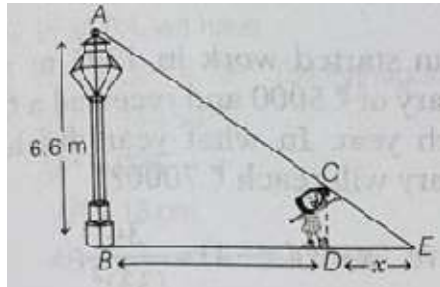
OR

If the perimeter and the area of a circle are numerically equal, then find the radius of the circle.

## SECTION -II

**CASE STUDY BASED QUESTIONS (17-20). Attempt any four sub-parts of each question.**

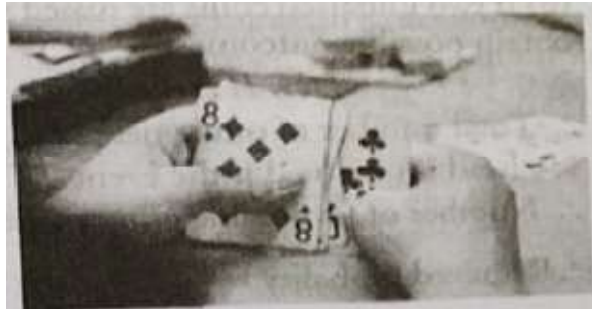
17. Morning walk is the good habit for healthy mind and fitness. In this order, a girl of height 180 cm is walking away from the base of a lamp-post at a speed of 2 m/s. If the lamp is 6.6 m above the ground, (see in the below figure). Then answer the following questions.



- I. Find the distance of the girl from lamp-post after 8 s.
  - a. 12.4m
  - b. 13.4m
  - c. 16m
  - d. 11.4m
- II. To prove  $\triangle ABE \sim \triangle CDE$ , which of the following similarity criterion is applicable.
  - a. AA
  - b. SAS
  - c. SSA
  - d. SSS
- III. Find the length of her shadow after 8s.
  - a. 9.2m
  - b. 6.2m
  - c. 7.3m
  - d. None of the above.

- IV. Which of the following mathematical concept is used for finding the length of girl shadow?  
 a. congruence  
 b. similarity  
 c. Pythagoras theorem  
 d. None of the above.
- V. If the distance of the girl from lamp-post is 26m, then time taken to cover this distance is.  
 a. 11s  
 b. 12s  
 c. 13s  
 d. 15s

18. On a weekend Rani was playing cards with her family. The deck has 52 cards. If her brother drew one card.



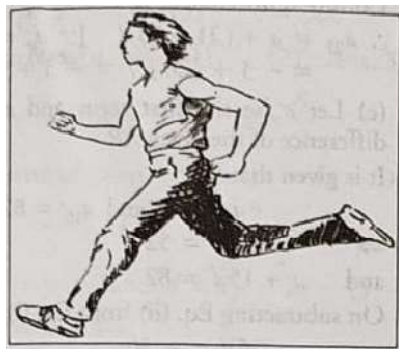
- I. Find the probability of getting a king of red colour.  
 a.  $\frac{1}{26}$   
 b.  $\frac{1}{13}$   
 c.  $\frac{1}{52}$   
 d.  $\frac{1}{4}$
- II. Find the probability of getting a face card.  
 a.  $\frac{1}{26}$   
 b.  $\frac{1}{13}$   
 c.  $\frac{2}{13}$   
 d.  $\frac{3}{13}$
- III. Find the probability of getting a jack of hearts.  
 a.  $\frac{1}{26}$   
 b.  $\frac{1}{52}$   
 c.  $\frac{3}{52}$   
 d.  $\frac{3}{26}$
- IV. Find the probability of getting a red face card.  
 a.  $\frac{3}{13}$   
 b.  $\frac{1}{13}$   
 c.  $\frac{1}{52}$   
 d. None of the above.
- V. Find the probability of getting a spade.  
 a.  $\frac{1}{26}$   
 b.  $\frac{1}{13}$   
 c.  $\frac{1}{52}$   
 d.  $\frac{1}{4}$

19. In order to conduct Sports Day activities in your school, lines have been drawn with chalk powder at a distance of 1m each, in a rectangular shaped ground ABCD. 100 flowerpots have been placed at a distance of 1m from each other along AD, as shown in the given figure below. Niharika runs  $\frac{1}{4}$ th the distance AD on the 2<sup>nd</sup> line and posts a green flag. Preet runs  $\frac{1}{5}$ th distance AD on the 8<sup>th</sup> line and posts a red flag.



- i. The position of green flag is  
 a.(2,25)                      b.(2,0.25)                      c.(25,2)                      d.(0,-25)
- ii. The position of red flag is  
 a.(8,0)                      b.(20,8)                      c.(8,20)                      d.(8,0.2)
- iii. What is the distance between two flags  
 a. $\sqrt{41}$  m                      b. $\sqrt{11}$  m                      c. $\sqrt{61}$  m                      d. $\sqrt{51}$  m
- iv. If Rashmi has to post a blue flag exactly halfway between the line segment joining the two flags, where should she post her flag ?  
 a.(5,22.5)                      b.(10,22)                      c.(2,8.5)                      d.(2.5,20)
- v. If joy has to post a flag at one-fourth distance from green flag , in the line segment joining the green and red flags, then where should he post his flag ?  
 a.(3.5,24)                      b.(0.5,12.5)                      c.(2.25,8.5)                      d.(25,20)

20. Your friend Veer wants to participate in a 200m race. He can currently run that distance in 51 seconds and with each day of practice it takes him 2seconds less. He wants to complete the race in 31 seconds.



- i. Which of the following terms are in AP for the given situation?  
 a. 51, 53, 55.....                      b. 51, 49, 47.....  
 c. -51, -53, -55.....                      d. 51, 55, 59.....
- ii. What is the minimum number of days he needs to practice till his goal is achieved?  
 a. 10                      b. 12                      c.11.                      d.9
- iii. Which of the following term is not in the AP of the above given situation ?  
 a.41.                      b.30.                      c.37.                      d. 39
- iv. If nth term of an AP is given by  $a_n=2n+3$ , then common difference of an AP is  
 a.2.                      b.3.                      c.5                      d.1
- v. The value of x, for which  $2x, x+10, 3x+2$  are three consecutive terms of an AP  
 a.6.                      b.-6.                      c.18.                      d. -18

**PART-B**

21. Given that  $\sqrt{2}$  is irrational, prove that  $(5 + 3\sqrt{2})$  is an irrational number.
22. Using section formula, show that the points  $A(-3, -1), B(1, 3)$  and  $C(-1, 1)$  are collinear.

OR

In what ratio, does the point  $(-4, 6)$  divide the line segment joining the points  $A(-6, 10)$  and  $B(3, -8)$ ?

23. One card is drawn from a well-shuffled deck of 52 cards. Find the probability of getting.
- a red face card.
  - the queen of diamond
24. Find the roots of the quadratic equation  $a^2b^2x^2 + b^2x - a^2x - 1 = 0$ .

OR

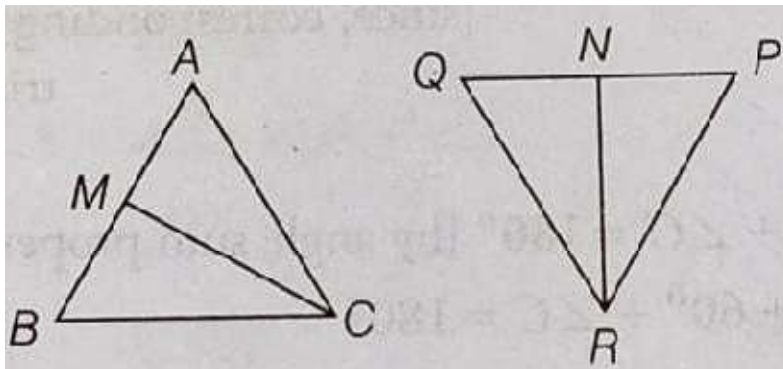
The sum of two number is 11 and the sum of their reciprocals is  $\frac{11}{28}$ . Find the numbers.

25. Determine the 10<sup>th</sup> term from the end of the AP: 4, 9, 14, ..., 254.
26. Find the area of the sector of a circle of radius 5cm, if the corresponding arc length is 3.5cm.
27. The sum of two numbers is 528 and their HCF is 33, then find the number of pairs satisfying the above condition.
28. If one zero of the polynomial  $2x^2 - 5x - (2k + 1)$  is twice the other, then find both the zeroes of the polynomial and the value of  $k$ .
29. Draw the graphs of the equations  $x - y + 1 = 0$  and  $3x + 2y - 12 = 0$ . Determine the coordinates of the vertices of the triangle formed by these lines and the X-axis and shade the triangular region.

OR

A train covered a certain distance at a uniform speed. If the train would have been 10 km/h faster, it would have taken 2 h less than the scheduled time and if the train was slower by 10 km/h, it would have taken 3 h more than the scheduled time. Find the distance covered by the train.

30. In the following figure,  $CM$  and  $RN$  are respectively the medians of  $\Delta ABC$  and  $\Delta PQR$ . If  $\Delta ABC \sim \Delta PQR$ , prove that
- $\Delta AMC \sim \Delta PNR$
  - $\frac{CM}{RN} = \frac{AB}{PQ}$
  - $\Delta CMB \sim \Delta RNQ$



31. Show that  $2(\sin^6 \theta + \cos^6 \theta) - 3(\sin^4 \theta + \cos^4 \theta) + 1 = 0$

Or

If  $m = \cos \theta - \sin \theta$  and  $n = \cos \theta + \sin \theta$  show that  $\sqrt{\frac{m}{n}} + \sqrt{\frac{n}{m}} = \frac{2}{\sqrt{1-\tan^2 \theta}}$ .

32. If  $\frac{\cot A}{1+\operatorname{cosec} A} - \frac{\cot A}{1-\cos A} = \frac{K}{\cos A}$ , then find the value of  $K$ .

33. If the sum of first four terms of an AP is 40 and that of first 14 terms is 280. Find the sum of its first 'n' terms.

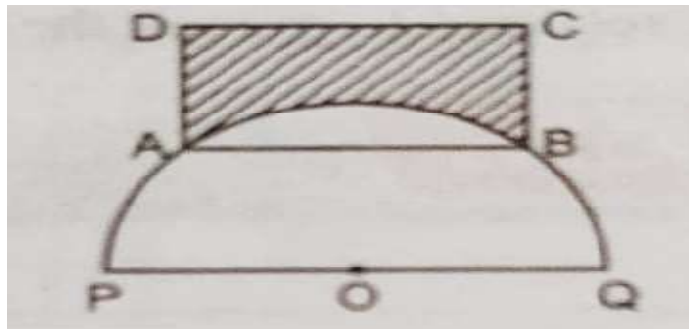
34. Prove that:-  $\frac{\sin A}{1+\cos A} + \frac{\sin A}{1-\cos A} = \sqrt{\frac{1+\cos A}{1-\cos A}} + \sqrt{\frac{1-\cos A}{1+\cos A}} = 2\operatorname{cosec} A$ .

35. If Ritu were younger by 5 years than what she really is, then the square of her age would have been 11 more than five times her present age. What is her present age?

OR

Two pipes running together can fill a cistern in  $11\frac{1}{9}$  minutes. If one pipe takes 5 minutes more than the other to fill it. Find the time in which each pipe would fill the cistern.

36.  $ABCD$  is a rectangle in which  $AB = 20\text{cm}$  and  $BC = 10\text{cm}$ . A semicircle is drawn with centre at  $O$  and radius  $10\sqrt{2}\text{cm}$ . It passes through  $A$  and  $B$  as shown in figure. Find the area of shaded region. [ $\pi = 3.14$ ]







# DELHI PUBLIC SCHOOL

## SAIL TOWNSHIP, RANCHI

HALF YEARLY EXAMINATION (2022-23)

Class - X  
Time - 2 Hours

Subject - Artificial Intelligence  
Maximum Marks- 50

### General Instructions:

1. Please read the instructions carefully
2. This Question Paper is divided into 03 sections, viz., Section A, Section B and Section C.
3. Section A is of 10 marks and has 10 questions of MCQ type.
4. Section B is of 20 marks and has 10 questions of subjective type(Short Answer Type).
5. Section C is of 20 marks and has 5 questions of subjective type(Long Answer Type).
6. Marks allotted are mentioned against each section/question.
7. All questions must be attempted in the correct order.

### SECTION A

Choose a correct option to answer the questions given below (1 x 10 = 10 marks)

1	Where does the processing in an ANN occur? a. Output Layer b. Hidden Layer c. Input Layer d. Data Layer	1
2	Regression works with : a. Intermittent Data b. Continuous Data c. Step Function Data d. Partially Linear Data	1
3	Which of the following is not a visualization technique in AI project cycle? a. System Maps b. Sketchy Graphs c. Decision Tree d. None of these	1

4	The factor(s) that may bring about negative changes in a person suffering from stress are .....	1
	<ul style="list-style-type: none"> <li>a. Threat</li> <li>b. Peer Pressure</li> <li>c. Both a and b</li> <li>d. None of these</li> </ul>	
5	In _____, we provide the AI model for the correct answers ahead of time.	1
	<ul style="list-style-type: none"> <li>a. Transfer learning</li> <li>b. Unsupervised learning</li> <li>c. Reinforced learning</li> <li>d. Supervised learning</li> </ul>	
6	What is the name of first computer virus?	1
	<ul style="list-style-type: none"> <li>a. The Famous</li> <li>b. HARLIE</li> <li>c. PARAM</li> <li>d. Creeper</li> </ul>	
7	The advertisement of merchandise is an example of which of the following domains of AI?	1
	<ul style="list-style-type: none"> <li>a. data science</li> <li>b. computer vision</li> <li>c. natural language processing</li> <li>d. All of the above</li> </ul>	
8	Nihar is learning AI domains. He is confused about which domain is related to data mining, machine learning and big data? Choose the perfect domain to make his confusion clear:	1
	<ul style="list-style-type: none"> <li>a. Data Science</li> <li>b. Computer Vision</li> <li>c. Natural Language Processing</li> <li>d. Neural Network</li> </ul>	
9	Which block in the 4W CANVAS is needed to gather evidence to prove that the problem really exists?	1
	<ul style="list-style-type: none"> <li>a. Why</li> <li>b. Where</li> <li>c. What</li> <li>d. Who</li> </ul>	

10	Which of the following refers to the type of data you want to collect? a. Training Data b. Model c. Testing Data d. Data Features	1
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## SECTION B

**Answer the questions given below in your own words (about 60 Words).**

**(2 x 10 = 20 marks)**

11	What are the different stress management techniques?	2
12	Why do we need a maintenance schedule for computers? Can you prepare a checklist for maintaining both internal and external components .	2
13	What is BIOS?	2
14	Write short notes on any two given below: 1. computer Virus 2. Malware 3. Cookies.	2
15	Draw the graphical representation of Clustering AI model. Explain in brief.	2
16	How do you feel AI is already impacting your day to day life? Give examples.	2
17	What are issues and concerns related to AI?	2
18	What are the two different approaches for AI modelling? Define them.	2
19	Write the names of all the stages of AI project cycle.	2
20	In which stage of AI project cycle framework decisions tree is used? What is decision tree model/algorithm?	2

## SECTION C

Answer the questions given below in your own words (about 120 words).  
(4x 5 = 20 marks)

21	What is operating system? What are the functions of operating system? Give some examples of operating system.	4
22	Imagine you are running a call centre. You face a problem that your staff is not sitting in their seats and a lot of callers are kept waiting. How will you use CV, NLP and Data together to solve both the problems?	4
23	What is Artificial Neural Network? What are the features of an Artificial Neural Network?	4
24	Explain the following: a. Supervised Learning b. Unsupervised Learning	4
25	Create a 4Ws project canvas/template for the following: <b>Case Study:</b> MIIT Academy is an institute which provides Computer Training to Senior Professionals. The institute has limited seats and is high in demand among the Working Professionals. It's planning to conduct an Entrance Test at Pan India level. They have to ensure that unauthorised people don't enter the Exam Centre so that they have fair admission selection. For this they need a system in place that should check who all are entering the center, and the system should raise an alert if it finds any unauthorised people entering. The Institute has the hard copies of the photographs of all the professionals who have applied and also of all staff that would be present at the center.	4



# DELHI PUBLIC SCHOOL

## SAIL TOWNSHIP, RANCHI

HALF YEARLY EXAMINATION (2022-23)

Class - X  
Time - 3 Hours

Subject - Science  
Maximum Marks- 80

### General Instructions:

- (i) The question paper comprises four sections A, B, C and D. There are 36 questions in the question paper. All questions are compulsory.
- (ii) Section-A - question no. 1 to 20 - all questions and parts thereof are of one mark each. These questions contain multiple choice questions (MCQs), very short answer questions and assertion - reason type questions. Answers to these should be given in one word or one sentence.
- (iii) Section-B - question no. 21 to 26 are short answer type questions, carrying 2 marks each. Answers to these questions should be in the range of 30 to 50 words.
- (iv) Section-C - question no. 27 to 33 are short answer type questions, carrying 3 marks each. Answers to these questions should be in the range of 50 to 80 words.
- (v) Section-D - question no. 34 to 36 are long answer type questions carrying 5 marks each. Answer to these questions should be in the range of 80 to 120 words.
- (vi) There is no overall choice. However, internal choices have been provided in some questions. A student has to attempt only one of the alternatives in such questions.
- (vii) Wherever necessary, neat and properly labeled diagrams should be drawn.

### SECTION A

1. Why is respiration considered an exothermic reaction ? [1]
2. In the refining of silver, the recovery of silver from silver nitrate solution involves displacement by copper. Write chemical equation involved. [1]
3. What happens when lead nitrate is heated strongly. Write the equation involved.

OR

Complete and balance the following:



4. A person needs a lens of -4.5 D for correction of her vision. What kind of defect in vision he is suffering from and what is the focal length of the corrective lens? [1]

5. Draw neat labelled diagram to show the formation of image by a concave lens when an object is placed in front of it . [1]

**OR**

Draw neat labelled diagram to show the formation of image by a convex lens when an object is placed between F and 2F.

6. Name the factor on which the scattering of light depends. [1]
7. An old person is unable to see clearly nearby object as well as distant objects. What defect of vision is he suffering from and what kind of lens will be required to see clearly the nearby as well as distant objects [1]
8. Draw a schematic diagram of an electric circuit consisting of a battery of three cells each of 2V, and  $5\Omega$ ,  $8\Omega$ ,  $12\Omega$  resistors and a plug key, all connected in series along with ammeter and a voltmeter. [1]
9. The resistance of an electrical component remains constant while the potential difference across the two ends of the component decreases to half of its former value. What change will occur in the current through it? [1]
10. How are the parts of CNS protected in our body? [1]
11. How does the food move forward in the alimentary canal? [1]

**OR**

What are the adaptations of leaf for photosynthesis?

12. Why have reflex arc evolved in animals? [1]

**OR**

How the communication between the CNS and other part of the body facilitated?

13. Why plants appear to bend towards light? [1]

**For question numbers 14 to 16, two statements are given one labeled**

**Assertion (A) and the other labeled Reason (R) . Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below.**

- (a) Both A and R are true, and R is the correct explanation of the assertion.  
(b) Both A and R are true, but R is not correct explanation of the assertion.  
(c) A is true, but R is false.  
(d) A is false, but R is true.

14. **Assertion (A) :** The aqueous solution of glucose and alcohol do not show acidic character.

**Reason (R):** Aqueous solution of glucose and alcohol do not give  $H^+$  ions.

15. **Assertion :** HCl converts pepsinogen into active enzyme pepsin.

**Reason:** Pepsin converts proteins into proteoses and peptones.

**OR**

**Assertion :** Human beings have a complex respiratory system.

**Reason:** Human skin is impermeable to gases.

16. **Assertion :** Abscisic acid is growth inhibitor.

**Reason:** It checks excessive transpiration by closing stomata.

17. Read the following paragraph and answer ANY FOUR questions.

[1×4=4]

We eat various types of food which has to pass through the same digestive tract. Naturally the food has to be processed to generate particles which are small and of the same texture. This is achieved by crushing the food with our teeth. Since the lining of the canal is soft, the food is also wetted to make its passage smooth.

17.1 Identify the option that indicates the correct enzyme that is secreted in location L, M and N. Where L, M and N represent Mouth cavity, Stomach and small intestine of the human being.

	L	M	N
A	lipase	Trypsin	Pepsin
B	Amylase	Pepsin	Trypsin
C	Trypsin	Amylase	Lipase
D	Lipase	Amylase	pepsin

17.2 When we consume lime juice while eating, then

- (a) Action of ptyalin on starch is enhanced
- (b) Action of ptyalin on starch stops
- (c) Action of ptyalin on starch is unaffected
- (d) Action of ptyalin on starch is reduced.

17.3 Only two of the following statements accurately describe what happens in the mouth

1. Amylase breaks down large starch molecules into smaller maltose molecules.
2. Chewing increases the surface area of food digestion.
3. Saliva emulsifies fats into smaller droplets.
4. Teeth break up large insoluble molecules into smaller soluble molecules.

Which statements are correct?

- (a) 1 and 2
- (b) 3 and 4
- (c) 2 and 3
- (d) 1 and 4

17.4 (i), (ii), (iii) and (iv) represent mouth cavity, liver, first part of small intestine and completes small intestine respectively of Human digestive system.

Match the labeling referred in Column I and correlate with the function in Column II

Column I	Column II
i	a. The length of this depends on the food the organism eats
ii	b. Initial phase of starch digestion
iii	c. Increase the efficiency of lipase enzyme action
iv	d. This is the site of the complete digestion of carbohydrates, proteins and fats

- (a) i- c; ii- d; iii- a; iv- d
- (b) i- b; ii- c; iii- d; iv- a
- (c) i- a; ii- c; iii- d; iv- b
- (d) i- d; ii- a; iii- b; iv- c

17.5 Which is the correct sequence of parts in human alimentary canal?

- (a) Mouth→stomach→small intestine→oesophagus→large intestine
- (b) Mouth→oesophagus→stomach→large intestine→small intestine
- (c) Mouth→stomach→oesophagus→small intestine →large intestine
- (d) Mouth→oesophagus→stomach→small intestine→large intestine

18. Read the passage given below and answer any four questions

[1×4]

Metals are electropositive elements. They can easily lose electrons to form ions. Metals show distinguished physical and chemical properties. Generally most of the metals are ductile and malleable. Reaction of a metal with water is one of the important chemical property. Metals like sodium and potassium react with hot/cold water while magnesium reacts with hot water. Metals like aluminium ,zinc do not react with hot/cold water but they easily react with steam. When a metal react with hot/cold water the products are metal hydroxide and hydrogen and when it reacts with steam , the products are metal oxide and hydrogen. Some metals like sodium and potassium react violently with water.

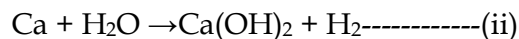
1. When zinc reacts with steam it produces

- (a)  $Zn(OH)_2$
- (b)  $ZnO$
- (c)  $O_2$
- (d)  $ZnO_2$

2. During the reaction of calcium with water, pieces of metal start floating due to the formation of

- (a)  $Ca(OH)_2$
- (b)  $CO_2$
- (c)  $H_2$
- (d) none of these

3. Consider the reactions:



- (a) Reaction (i) is endothermic reaction
- (b) Reaction (ii) is endothermic reaction
- (c) Reaction (ii) is more exothermic than reaction (i)
- (d) Reaction (i) is more exothermic than reaction (ii)

4. The metals which react with very dilute nitric acid to evolve hydrogen gas

- (a) Pb, Cu
- (b) Na, K
- (c) Mg, Mn
- (d) Al, Zn

5. The lustre of a metal is due to

- (a) its high density
- (b) its high polishing
- (c) its chemical inertness
- (d) presence of free electrons



19. Read the following and answer any four questions from 19 (i) to (v) [1×4=4]

The lenses form different types of images when object placed at different locations. When a ray is incident parallel to the principal axis, then after refraction, it passes through the focus or appears to come from the focus.

When a ray goes through the optical centre of the lens, it passes without any deviation. If the object is placed between focus and optical centre of the convex lens, erect and magnified image is formed. As the object is brought closer to the convex lens from infinity to focus, the image moves away from the convex lens from focus to infinity. Also the size of image goes on increasing and the image is always real and inverted.

(i) The location of image formed by a convex lens when the object is placed at infinity is

- (a) at focus
- (b) at 2F
- (c) at optical center
- (d) between F and 2F

(ii) When the object is placed at the focus of concave lens, the image formed is

- (a) real and smaller
- (b) virtual and inverted
- (c) virtual and smaller
- (d) real and erect

(iii) The size of image formed by a convex lens when the object is placed at the focus of convex lens is

- (a) small
- (b) point in size
- (c) highly magnified
- (d) same as that of object

(iv) When the object is placed at 2F in front of convex lens, the location of image is

- (a) at F
- (b) at 2 F on the other side
- (c) at infinity
- (d) between F and optical center.

(v) At which location of object in front of concave lens, the image between focus and optical centre is formed

- (a) any where between centre and infinity
- (b) at F
- (c) at 2F
- (d) infinity

20. Read the following and answer any four questions from 20 (i) to (v) [1×4=4]

The relationship between potential difference and current was first established by George Simon Ohm called Ohm's law. According to this law, the current through a metallic conductor is proportional to the potential difference applied between its ends, provided the temperature of conductor remains constant that is I is proportional to V Or  $V = IR$ ; where R is constant for the conductor and it is called resistance of the conductor. Although Ohm's law has been found valid over a large class of materials, there do exist materials and devices used in electric circuits where the proportionality of V and I does not hold. [1 x4 =4]

(i) If the potential difference in a circuit is doubled, then -

- (a) current remains same
- (b) current is doubled
- (c) current is halved
- (d) current is quadrupled.

(ii) The slope of V - I graph ( V on x- axis and I on y- axis) gives :-

- (a) current
- (b) resistance
- (c) reciprocal of resistance
- (d) charge.

(iii) When battery of 9 V is connected across a conductor and the current flows is 0.1 A, the resistance is :-

- (a) 9 Ohm
- (b) 0.9 Ohm
- (c) 90 Ohm
- (d) 900 Ohm

(iv) By increasing the length of a conductor, the -

- (a) resistivity will decrease
- (b) resistance will increase
- (c) resistivity and resistance will remain unchanged
- (d) resistance will decrease.

(v) If the conductor resistance is 50 ohm and the current passing through it is 5 A. What is the value of potential difference-

- (a) 150 V
- (b) 250 V
- (c) 50 V
- (d) 15 V

21. Give reason:-

[1+1=2]

- (a) Arteries form capillaries
- (b) Ventricles have thicker muscular wall than atrium.

**OR**

- (a) What happens if conducting tubes of circulatory system develops a leak?
- (b) "Lymph is another type of fluid involved in transportation." Justify.

22. Why do multicellular organism need another means of communication between cells besides nervous coordination? [2]

### SECTION B

23. What is rancidity ? Suggest two methods to check rancidity. [2]

24. Why do ionic compounds conduct electricity only in the molten state and not in the solid state? [2]

**OR**

What is bleaching powder chemically called? Give a reaction for its preparation .State one of its use.

25. Define the term dispersion of white light. Name the colour of light which bends  
 (i) the most,  
 (ii) the least while passing through a glass prism. Draw a ray diagram to justify your answer. [2]
26. (a) Define the resistivity of material of a conductor and give its SI unit.  
 (b) Write the factors affecting resistivity of the conductor. [2]
27. Pertaining to endocrine system what will you interpret if [1+1+1=3]  
 (a) You observe swollen neck in people living in the hills.  
 (b) Oversecretion of growth hormone during childhood.  
 (c) Facial hair develops in boys aged 13
- OR**
- An old man is advised to take less sugar in his diet .  
 (a) Name the disease from which the man is suffering.  
 (b) Mention the hormone due to the imbalance of which he is suffering from this disease and state the role of the hormone.  
 (c) Which endocrine gland secrete this hormone.
28. (a) How transpiration is different from translocation ?  
 (b) Why do plants have a slow transport system ? [2+1=3]
29. (a) Differentiate between cerebrum and cerebellum  
 (b) How does a muscle cell move in animals? [2+1=3]

### SECTION C

30. (a) What is the chemical name of Plaster of Paris? Write the chemical formula of Plaster of Paris.  
 (b) How is Plaster of Paris prepared? Write chemical equation of the reaction involved.  
 (c) Explain why Plaster of Paris should be stored in a moisture – proof container? [3]
31. In the electrolysis of water : [3]  
 (a) Name the gas collected at the cathode and anode respectively.  
 (b) Why is the volume of one gas collected at one electrode double than that at the other?  
 (c) How will you test the evolved gases?
32. (a) Distinguish between roasting and calcination.  
 (b) Name the anode, the cathode and the electrolyte used in the electrolytic refining of impure copper. [2+1]
33. A person is unable to see objects distinctly placed within 50 cm from his eyes. (a) Name the defect of vision the person is suffering from and how it can be corrected (b) List two possible causes of this defect of vision. (c) Draw a ray diagram to show this defect of vision and also draw diagram for the correction of this defect. [3]

### SECTION D

34. (a) Explain why is hydrochloric acid a strong acid and acetic acid a weak acid?  
(b) Explain why an aqueous solution of an acid conducts electricity?  
(c) You have four solutions A,B,C and D. The pH of solution A is 6,B is 9,C is 12 and D is 7.

Arrange the above four solutions in the increasing order of  $H^+$  ion concentration. [2+2+1]

**OR**

- (a) Why should curd and sour substances not be kept in brass and copper vessels?  
(b) What is the role of tartaric acid added to baking soda ?  
(c) Name the sodium compound which is used for softening hard water. [2+2+1]
35. (a) Name any two components which are absorbed in the small intestine and again reabsorbed in the kidney tubules.  
(b) On what factor does the amount of water reabsorbed depends?  
(c) Draw the structure of a human excretory unit and label the following parts:-  
(i) Renal artery  
(ii) Bowman's capsule  
(iii) Glomerulus  
(iv) Collecting Duct [1+1+3=5]

#### SECTION- D

36. (a) The image of a candle flame placed at a distance of 30 cm from a mirror is formed on a screen placed in front of the mirror at a distance of 60 cm from its pole. What is the nature of the mirror? Find its focal length. If the height of the flame is 2.4 cm, find the height of its image. State whether the image formed is erect or inverted.  
(b) The linear magnification produced by a spherical mirror is +3. Analyse this value and state the (i) type of mirror and (ii) position of the object with respect to the pole of the mirror. Draw a ray diagram to show the formation of image in this case. [3+2=5]

**OR**

- (a) State the laws of refraction of light. Explain the term absolute refractive index of a medium' and write an expression to relate it with the speed of light in vacuum.  
(b) The absolute Refractive index of two media 'A' and 'B' are 2.0 and 1.5 respectively. If the speed of light in medium 'B' is  $2.0 \times 10^8$  m/s, calculate the speed of light in (i) vacuum (ii) medium 'A'.
-



**DELHI PUBLIC SCHOOL**  
**SAIL TOWNSHIP, RANCHI**  
**HALF YEARLY EXAMINATION (2022-23)**

**Class - X**  
**Time - 3 Hours**

**Subject - Social Science**  
**Maximum Marks- 80**

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**General Instructions :**

- i. Question paper comprises five Sections - A, B, C, D and E. There are 32 questions in the question paper. All questions are compulsory.
  - ii. Section A - Question no. 1 to 16 are Objective Type Questions of 1 mark each.
  - iii. Section B - Question no. 17 to 22 are short answer type questions, carrying 3 marks each. Answer to each question should not exceed 80 words.
  - iv. Section C - Question no. 23 to 26 are source based questions, carrying 4 marks each.
  - v. Section D - Question no. 27 to 31 are long answer type questions, carrying 5 marks each. Answer to each question should not exceed 120 words.
  - vi. Section E - Question no. 32 is map based, carrying 5 marks with two parts, 32.1 from History (2marks) and 32.2 from Geography (3 marks).
  - vii. There is no overall choice in the question paper. However, an internal choice has been provided in few questions. Only one of the choices in such questions have to be attempted.
  - viii. In addition to this, separate instructions are given with each section and question, wherever necessary.
- 

**SECTION-A**

1. Who was the chief architect of the unification of Germany?  
A. Otto von Bismarck  
B. Cavour  
C. Metternich  
D. Mazzini [1]
2. Romanticism refers to a:  
A. cultural movement  
B. religious movement  
C. political movement  
D. literary movement [1]
3. Which of the following countries is considered as the 'cradle of European civilization'?  
A. England  
B. France  
C. Greece  
D. Russia
4. Fill in the blank: [1]  
The piece of land left uncultivated for the past 1 to 5 agricultural years is called \_\_\_\_\_.

OR

\_\_\_\_\_ Resources which are found in a region, but have not been utilised.

5. Find the incorrect option regarding unclassed forests. [1]

- A. These forests are mostly managed by both private communities and the government.
- B. All human activities are allowed in these forests.
- C. These forests are mostly found North-Eastern states and parts of Gujarat.
- D. These forests constitute about more than half of the total forest land in India.

6. Identify the forest conservation programme with the help of the following features. [1]

- A. In these programme furnishes a good example for involving local communities in the management and restoration of degraded forests.
- B. It depends on the formation of local (village) institutions that undertake protection activities mostly on degraded forest land managed by the forest department.
- C. In return, the members of these communities are entitled to intermediary benefits like non timber forest produces and share in the timber harvested by 'successful protection'.

7. Match the following and choose the correct option given below : [1]

River Projects	Rivers
a. Bhakra Nangal	i. Krishna
b. Sardar Sarovar	ii. Mahanadi
c. Nagarjuna Sagar	iii. Narmada
d. Hirakud	iv. Satluj

**Options :**

- A. a-iv, b-iii, c-ii, d-i
- B. a-ii, b-iii, c-iv, d-i
- C. a-ii, b-iv, c-i, d-iii
- D. a-iv, b-iii, c-i, d-ii

8. Complete the following table: [1]

Food Crop	Annual Rainfall	Cropping Season
Wheat	A. ?	B. ?

9. What is federalism? [1]

10. What did Gandhiji say about the relationship between religion and politics? [1]

OR

What do you mean by quest for political dominance?

11. What is meant by sexual division of labour? [1]

OR

Mention one situation where expression of caste differences play a positive role.

12. Human Development Report is published by. [1]  
A. UNDP  
B. IMF  
C. World Bank  
D. WHO
13. Which component is important for comparing different countries? [1]  
A. Population  
B. Income  
C. Per Capita Income  
D. Resources
14. What will be the top priority in the development goal of a landless labourer? [1]  
A. Expansion of rural banking  
B. Establishment of a high school  
C. More days of work and better wages  
D. Metal roads for transport
15. Which sector has emerged as the largest producing sector in India. [1]  
A. Secondary sector  
B. Primary sector  
C. Tertiary sector  
D. Science and Technology sector
16. Which example does not fall under unorganised sector? [1]  
A. A doctor in a hospital treating a patient  
B. A daily wage labourer working for a contractor  
C. A farmer irrigating his field  
D. A handloom weaver working on a loom in her house.

### SECTION-B

#### Short answer questions:

17. Explain the three types of flows within international economy in exchanges? [3]
18. State three reasons why Europeans fled to America in the 19<sup>th</sup> century. [3]

#### OR

Enumerate the importance of Silk Route.

19. "Planning is widely accepted strategy for judicious use of resources". Explain this statement with examples. [3]

20. What were the majoritarianism measures adopted in Sri Lanka to establish Sinhala supremacy? [3]

**OR**

What amendments were worked out by the Belgian leaders in order to accommodate regional differences and cultural diversities?

21. State two points about the developmental goals that are observed in day to day life? [3]

22. What is average income of a country? Why is Per Capita Income considered as an important parameter of measuring development? [3]

### **SECTION-C**

**23. Read the source given below and answer the questions that follows: (1+1+2=4)**

#### **The Independence Day Pledge, 26 January 1930**

'We believe that it is the inalienable right of the Indian people, as of any other people, to have freedom and to enjoy the fruits of their toil and have the necessities of life, so that they may have full opportunities of growth. We believe also that if any government deprives them, the people have a further right to alter it or to abolish it. The British Government in India has not only deprived the Indian people of their freedom but has based itself on the exploitation of the masses and has ruined India economically, politically, culturally and spiritually. We believe, therefore, that India must sever the British connection and attain Purna Swaraj or Complete Independence.'

23.1. Explain the immediate effects of the Lahore Session of the Congress on the Indian National Movement? [1]

23.2. Who was the President of the Congress when the decision was taken to celebrate 26 January 1930 as the Independence Day? [1]

23.3. Why must India sever the British connection and attain Purna Swaraj? Explain briefly. [2]

**24. Read the source given below and answer the questions that follow:**

Given the abundance and renewability of water, it is difficult to imagine that we may suffer from water scarcity. The moment we speak of water shortages, we immediately associate it with regions having low rainfall or those that are drought prone. We instantaneously visualise the deserts of Rajasthan and women balancing many 'matkas' (earthen pots) used for collecting and storing water and travelling long distances to get water. True, the availability of water resources varies over space and time, mainly due to the variations in seasonal and annual precipitation, but water scarcity in most cases is caused by over-exploitation, excessive use and unequal access to water among different social groups. Where is then water scarcity likely to occur? As you have read in the hydrological cycle, freshwater can be obtained directly from precipitation, surface run off and groundwater.



**Answer the following MCQs by choosing the most appropriate option.**

- 24.1 The availability of water resources varies over : [1]  
A. Space  
B. Time  
C. Variation in precipitation  
D. All of the above
- 24.2 Identify the cause of water scarcity. [1]  
A. Overuse of aquifers  
B. Increased human consumption  
C. No change in climate  
D. Both A & B
- 24.3 \_\_\_\_\_ is the largest consumer of surface water. [1]  
A. Animals  
B. Aqua culture  
C. Irrigated agriculture  
D. Industries
- 24.4 A large amount of population requires more water not only more domestic use also to produce more \_\_\_\_\_. [1]  
A. Farms  
B. Forests  
C. Food  
D. Factories

**25. Read the source given below and answer the questions that follows: (1+1+2=4)**

Communalism is a belief that all those who have a common religion have, as a result, common social, cultural and economic interests and identities. It is a notion that religion forms the base of the society and the basic unit of division and that it is religion which determines all other interests of its adherents. Hence, communalism is a phenomenon of superimposition of religious beliefs on all other aspects of a man's life because in pre-independent India, communalism mainly manifested itself in Hindu-Muslim context, hence it is also loosely referred to as Hindu-Muslim problem even though it contains in its gamut all rabble-rousing saber-rattling extremists of all hues. Ingrained in this concept of communalism are three mistaken beliefs:

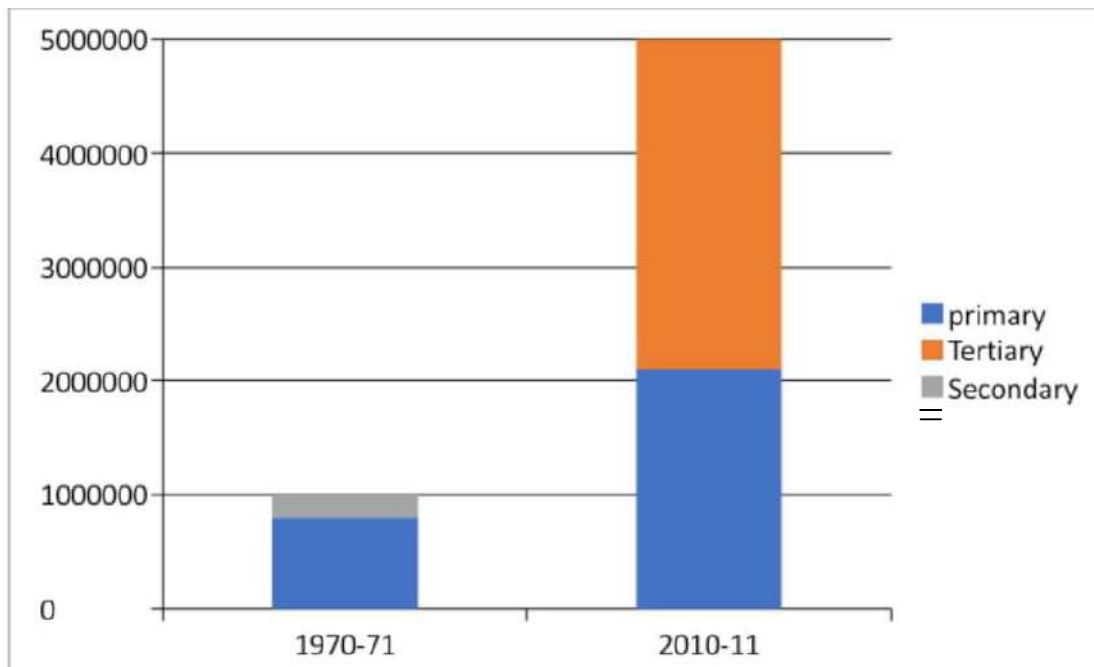
1. interests of the adherents of a religion are the same.
2. interests of the adherents of different religions were different.
3. interests of adherents of different religions were also antagonistic.

- 25.1. Which idea is communal politics based on? [1]
- 25.2. What is the most ugly form of communalism? [1]
- 25.3. What does communalism in its extreme form lead to? [2]

26. Study the given bar graph carefully, and answer the following questions:

[4]

Graph 1



- A. 1. Which was the largest producing sector in 1970-71?
- B. 2. Which was the largest producing sector in 2010-11?
- C. 3. Can you say which sector has grown the most over the past thirty years?
- D. 4. What was the GDP of India in 2010-11?

#### SECTION-D

##### Long answer questions:

27. What steps were taken by the French revolutionaries to create a sense of collective belonging, among the people of France? [5]

OR

Explain the process of Italian unification.

28. Differentiate between Subsistence Farming and Commercial Farming. [5]

OR

Suggest the initiative taken by the government to ensure the increase in agricultural production.

## SECTION-D

29. Give an account of the ethnic composition of Sri Lanka. [5]
30. Discuss the Constitutional Amendments of 1992 regarding decentralisation of power. [5]
31. Compare the economic activities of the Public sector with that of the Private sector [5 pts]. [5]

OR

What do you understand by disguised unemployment? Explain with an example .

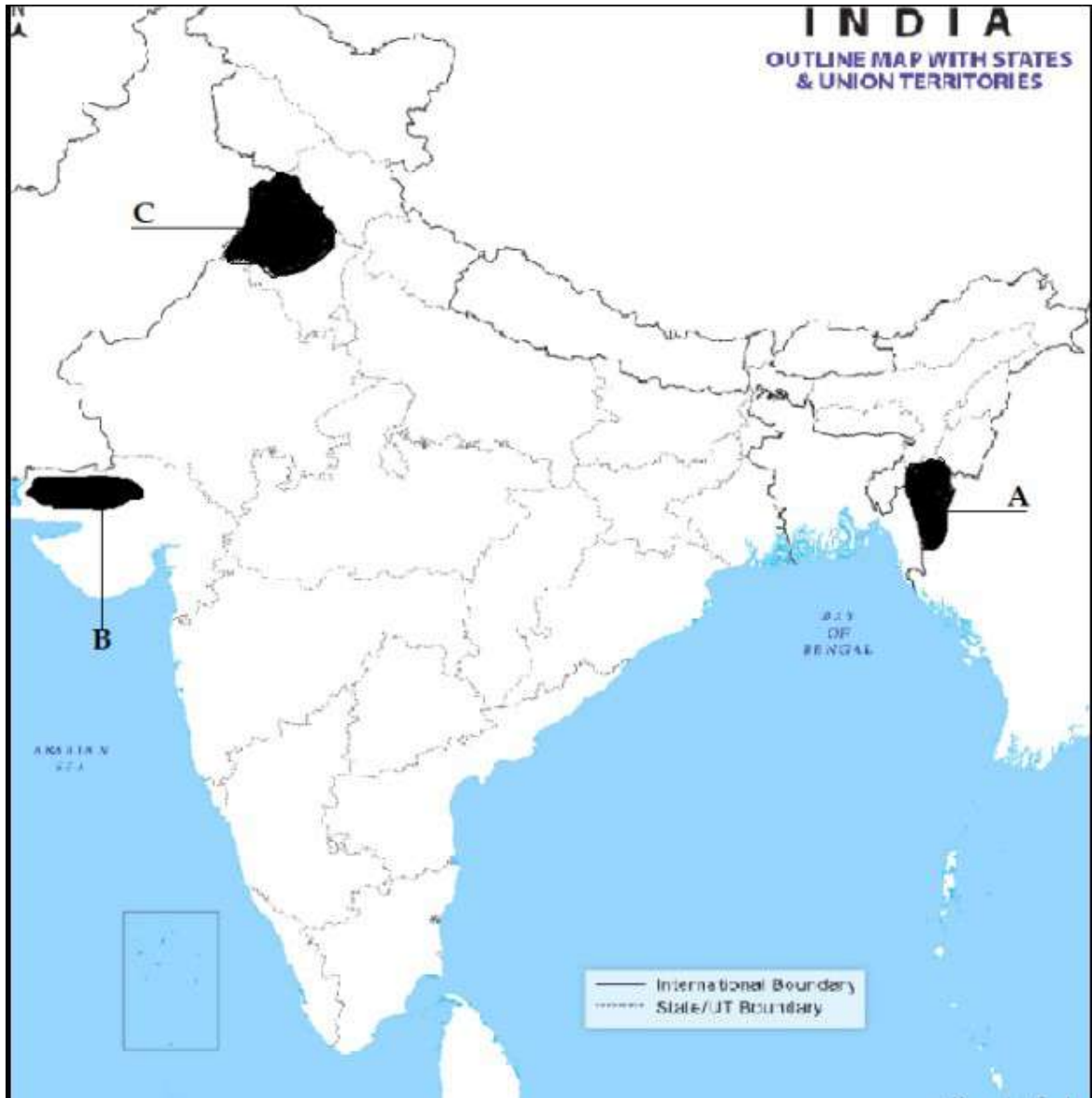
## SECTION-E

**Map skill based question:**

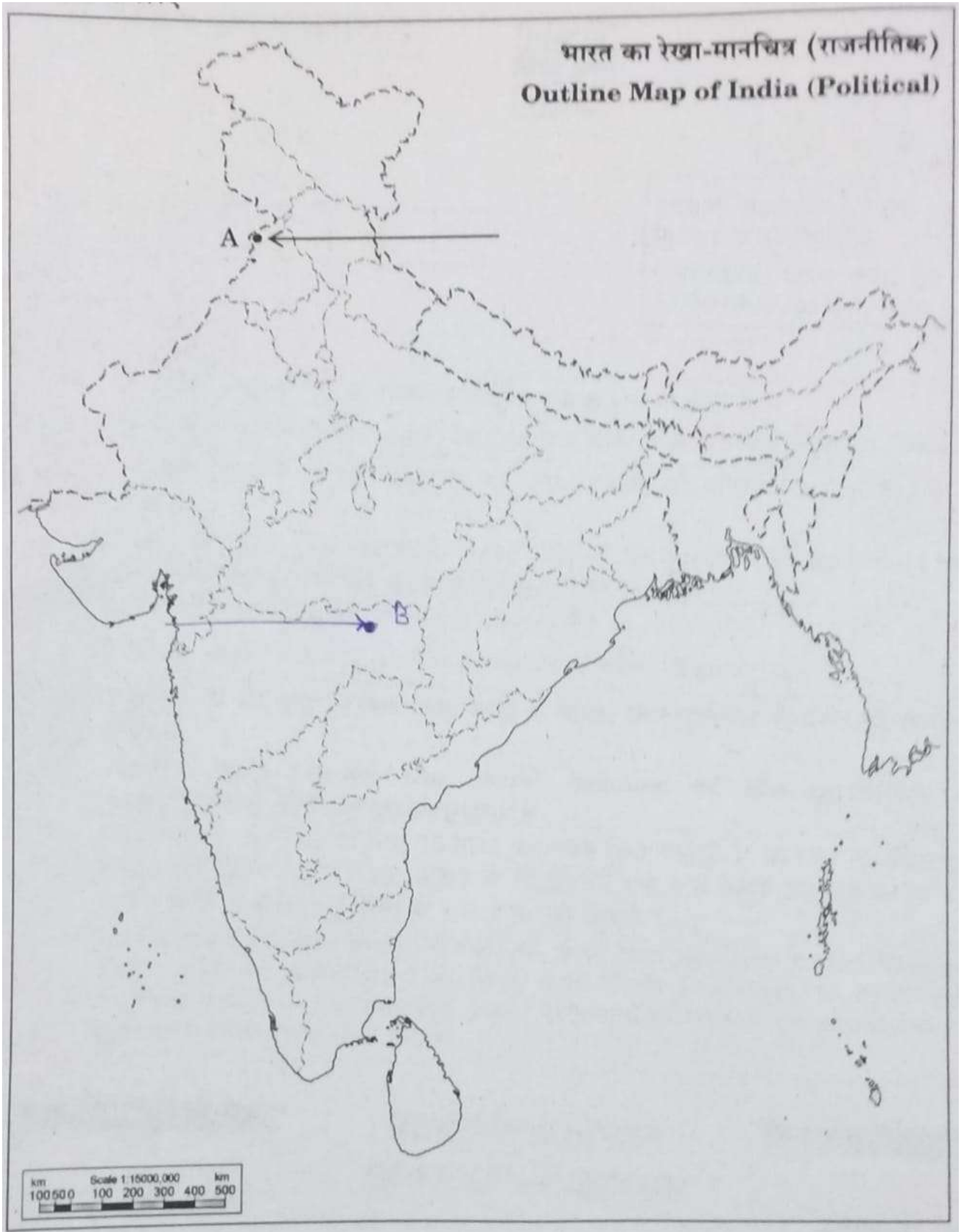
**(1+1=2)**

- 32.1. Two places A and B have been marked on the given outline map of India. Identify them and write their correct names on the lines drawn near them.
- A. The place where Jallianwala Bagh massacre took place.
- B. The place where the Indian National Congress Session was held in December, 1920.
- 32.2 (i) Two features **A, B and C** are marked on the given political outline map of India. **Identify** these features with the help of the following information and write the correct names of any **TWO** on the answer script. [1]
- A. Type of soil
- B. Type of soil
- C. A Wheat producing state
- (ii) On the Political Map of India **locate and label** any **ONE** of the following with suitable symbols. [2]
- D. Tehri Dam
- E. Rana Pratap Sagar Dam
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# GEOGRAPHY



# HISTORY





# DELHI PUBLIC SCHOOL

## SAIL TOWNSHIP, RANCHI

### HALF YEARLY EXAMINATION (2022-23)

Class - X  
Time - 3 Hours

Subject - Spanish  
Maximum Marks- 80

#### Comprensión:

[10]

Nació en Santiago de Chile en 1972. Al año siguiente, poco antes del golpe de Estado de Pinochet, sus padres se fueron a vivir a España, a Madrid.

En 1990 empezó a estudiar Imagen y Sonido en la Universidad Complutense de Madrid, pero no terminó los estudios. En 1996 estrenó su primer largometraje, *Tesis*.

Sus películas más famosas llegaron poco después. En 1997 realizó su segunda película, *Abre los ojos*, que fue un gran éxito. Más tarde, Tom Cruise compró los derechos de la película para hacer *Vanilla Sky* (2001).

En 2001 estrenó *Los otros*, una película de terror y suspense en la que Nicole Kidman es la protagonista.

Tres años después, en 2004, ganó varios premios con la película *Mar adentro*, que trata el tema de la eutanasia.

En 2009 estrenó *Ágora*, una película histórica que sitúa la acción en Alejandría, en el siglo IV d.C., y que narra la vida de la filósofa Hipatia, interpretada por Rachel Weisz.

#### Contesta las preguntas :-

1. ¿Sobre quién es esta Comprensión?
2. ¿Cuándo nació, con quién, cuándo y a dónde fue a vivir?
3. ¿Cuándo estrenó su primer largometraje y qué es su nombre?
4. ¿Cuáles películas fueron éxitos grandes?
5. En 2009, cuál película estrenó él y escribe algo en breve para esta película.

#### Writing - 20 marks

1. Escribe un texto sobre una experiencia increíble en pretérito indefinido (100 palabras) [10]
2. Escribe un correo electrónico sobre tu visita a la Casa museo de Pablo Neruda. (50 - 80 palabras) [10]

## Literature : 20 Marks

### Contesta a las preguntas siguientes de unidad uno

[5]

1. Explica el aprendizaje de estudiante independiente de campo.
2. ¿Cómo aprende el estudiante dependiente de campo?
3. ¿Aparte de razones variadas y personales, cuáles son otros motivos para estudiar español?
4. Describe algo sobre una obra famosa de Gabriel García Márquez.
5. ¿Quién era Mario Vargas Llosa y de que se trata su novela "La fiesta del Chivo"?

### Responde a las cuestiones abajos

[5]

1. ¿Quién era El Che Guevara?
2. ¿Cuál era la película de Amenábar que ganó el premio Goya al mejor director novel?
3. ¿Cuál era la película de Amenábar que ganó Oscar a la mejor película de habla no inglesa?
4. ¿Escribe algo sobre Gabriela Mistral?
5. ¿De qué se trata la pintura "Guernica" de Picasso?

### Contesta a las preguntas abajos de Casas Únicas

[5]

1. Dónde está la casa preferida de Neruda y qué hizo en aquella casa?
2. De qué forma es su casa, descríbela.
3. ¿Con cuál pintora mexicana y cómo está relacionada la casa azul?
4. ¿Por qué museo de la casa azul está más visitado de México?
5. Describe la casa museo Manuel de Falla.

### Contesta a las preguntas siguientes

[5]

1. ¿Cómo describes La Plaza Mayor y dónde se ubica?
2. ¿Qué están alrededor de la plaza y qué sucede allí?
3. ¿Cómo describes La Plaza de la Cebada y dónde se ubica?
4. ¿Para qué es un lugar ideal?
5. ¿Cómo describes la plaza Julio Cortázar?

## Grammar : 30 Marks

1. Haz una frase con cada uno de levantarse y sentirse [1]
2. a) Me cuesta/ cuestan aprender los verbos en español. [1]  
b) .... sientes seguro cuando escribes español.
3. Haz dos frases con Para y Porque [1]
4. Haz frases con desde, desde hace, hace, hace .... que [2]

5. a) Haz dos frases con cada uno de pretérito indefinido [2]  
b) Haz dos frases con empezar a + infinitivo [2]
6. a) ¿Te quedaste hasta el final de la fiesta? [1]  
Fui/ me fui un rato antes  
b) ¿Conoces el museo del Prado? Sí, fui/ me fui hace unos meses. [1]
7. Haz una frase con un marcador temporal [1]
8. Estudio español ..... octubre. (desde, hace) [1]
9. Encontré trabajo .... dos meses. (con, durante) [1]
10. Te esperé en el jardín.... las seis.(desde,hasta) [1]
11. Un balón está ..... de (under) la mesa. [1]
12. Un balón está ..... (in between) dos mesas. [1]
13. Un balón está ..... de (on) la mesa. [1]
14. Nueva Delhi tiene .....(more than) coches ..... Ranchi. [1]
15. Tu casa tiene ..... (as much as) balcones..... yo. [1]
16. Haz 2 frases con estar + gerundio [2]
17. ¿Cómo puedes pedir un objeto usando dar, [3]  
dejar, prestar?
18. ¿Cómo puedes pedir un favor con podría, [3]  
puede y importar?
19. Haz dos frases con Es que [2]
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