



QUESTION PAPER DESIGNS AND SAMPLE QUESTION PAPERS

2023

Secondary Level

Nagaland Board of School Education
Upper Bayavü, Kohima
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**QUESTION PAPER
DESIGNS
AND
SAMPLE QUESTION
PAPERS**

Secondary

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FOREWORD

National Education Policy (NEP) 2020 laid emphasis on Reformation of Examination System in the country. In line with the NEP 2020, the Board is taking steps to reform the existing Board Examination system and plans to implement it gradually. To test the primarily core capacities/ competencies, the Board has redesigned the assessment pattern. Now, the examination would focus on competency based assessment and test achievement of basic learning outcomes through assessment of core concepts and knowledge along with relevant higher-order skills and application of knowledge in real-life situations, rather than rote memorization.

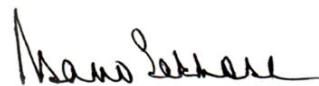
For the initial stage, at least 10% of the total external marks will be of Higher Order Thinking Skill (HOTS). The weightage of marks for the internal and external is not affected with the new design.

The new design shall be effective from Class IX Phase I & II Examinations 2023, HSLC Examination 2024, and Class XI promotion & HSSLC Examinations 2024 for all the subjects.

All schools registered with the Board are required to strictly follow the new design and align the classroom teaching and assessment accordingly. The new design should be implemented from the Mid-Term examinations 2023.

I express my sincere appreciation to the Teachers and Officers who have been involved in the exercise to bring out this booklet.

Dated: 15.03.2023


(Asano Sekhose)
Chairman.

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DESIGN OF QUESTION PAPER

Weightage to different forms of questions

Section	Details of Topics/Sections	Types of questions	No. of questions	Marks	Total Marks
Section A- Literature	Prose	MCQ SA- I LA- I	3 2 1	3x1=3 2x3=6 1x5=5	14
	Poetry	LA- I	1	1x5=5	5
	Drama	SA- I	2	2x3=6	6
Section B- Reading	Two unseen passage of 200-300 words and a shorter one of 120-150 words. There will be questions to test sub skills of scanning, skimming, vocabulary reinforcement, inference evaluation and comprehension.	MCQ SA I LA-I	7 1 2	7x1=7 1x3=3 2x5=10	20
Section C- Writing	<ul style="list-style-type: none"> • Notice, e-mail, informal invitation, posters. • paragraph writing or description of an event • question based on visual input • Article, Speech, Informal letter, story writing, Report writing 	SA II LA- I LA- II	2 1 1	2x4=8 1x5=5 1x7=7	20
Section D- Grammar	<ul style="list-style-type: none"> • There will be 3-4 questions in this section • Verb forms, sentence structure, connectors, determiners, pronouns, prepositions, clauses and phrases will be tested. 	VSA	15	1x15=15	15

Sl.no.	Forms of Questions	Marks for each question	No. of Questions	Total marks
1.	MCQ	1	10	10
2.	VSA	1	15	15
3.	SA - I	3	5	15
4.	SA - II	4	2	8
5.	LA - I	5	5	25
6.	LA - II	7	1	7
TOTAL			38	80

Weightage level of questions

Sl.no	Level	Percentage	Marks
1.	Easy	20	16
2.	Average	65	52
3.	Difficult	15	12

Scheme of options:

Internal choice/general choice shall be provided in:

- i. 2(two) questions of 3 marks
- ii. 1(one) question of 4 marks
- iii. 2(two) questions of 5 marks
- iv. 1(one) question of 7 marks

Note:

1. Minimum 10% of the marks will be of Higher Order Thinking Skills (HOTS)/ Competency Based Questions.

ENGLISH - X

DESIGN OF QUESTION PAPER

Weightage to different forms of questions

Section	Details of Topics/Sections	Types of questions	No. of questions	Marks	Total Marks
Section A– Literature	Prose	MCQ SA- I LA- I	3 2 1	3x1=3 2x3=6 1x5=5	14
	Poetry	LA- I	1	1x5=5	5
	Drama	SA- I	2	2x3=6	6
Section B– Reading	Two unseen passage of 200-300 words and a shorter one of 120-150 words. There will be questions to test sub skills of scanning, skimming, vocabulary reinforcement, inference evaluation and comprehension.	MCQ SA I LA-I	7 1 2	7x1=7 1x3=3 2x5=10	20
Section C– Writing	<ul style="list-style-type: none"> • Notice, Advertisement, e-mail, formal invitation • paragraph writing or description of an event • question based on visual input • Article, Speech, formal letter, Report writing 	SA II LA- I LA- II	2 1 1	2x4=8 1x5=5 1x7=7	20
Section D– Grammar	<ul style="list-style-type: none"> • There will be 3-4 questions in this section • Determiners, subject-pronoun agreement, non-finite verbs forms, transitive and non-transitive verb, voice, speech, clauses will be tested 	VSA	15	1x15=15	15

Sl.no.	Forms of Questions	Marks for each question	No. of Questions	Total marks
1.	MCQ	1	10	10
2.	VSA	1	15	15
3.	SA - I	3	5	15
4.	SA - II	4	2	8
5.	LA - I	5	5	25
6.	LA - II	7	1	7
TOTAL			38	80

Weightage level of questions

Sl.no	Level	Percentage	Marks
1.	Easy	20	16
2.	Average	65	52
3.	Difficult	15	12

Scheme of options:

Internal choice/general choice shall be provided in:

- i. 1(one) question of 3 marks
- ii. 1(one) question of 4 marks
- iii. 2(two) questions of 5 marks
- iv. 1(one) question of 7 marks

Note:

1. Minimum 10% of the marks will be of Higher Order Thinking Skills (HOTS)/ Competency Based Questions.

SAMPLE QUESTION PAPER 2023
ENGLISH - X

Total marks : 80

Time : 3 hours

General instructions:

- i) *Approximately 15 minutes is allotted to read the question paper and revise the answers.*
- ii) *The question paper consists of 18 questions, divided into four sections A, B, C & D.*
- iii) *Attempt questions based on specific instructions for each part. Write the correct question number in your answer sheet to indicate the option(s) being attempted.*
- iv) *Alternate question for the visually impaired has been provided in question no.13. **ONLY the visually impaired are to attempt this alternate question.***

N.B: Check that all pages of the question paper are complete as indicated on the top left side.

SECTION-A (Literature)

Answer the following questions:

1. Choose the correct answer from the alternatives given: **3x1=3**
 - (a) How long must have Gandhiji's infatuation to become an English Gentleman lasted?
 - i. two months
 - ii. three months
 - iii. five months
 - iv. six months
 - (b) '*That might raise a hope in you.*' What does 'that' refer to here? (Macbeth)
 - i. Macbeth's trust in the witches' prophecies
 - ii. Macbeth's accession to the throne
 - iii. Banquo's children becoming the kings
 - iv. The prophecies becoming true
 - (c) Immediately after his release from prison, Nelson Mandela started working _____.
 - i. to bring about an end to apartheid
 - ii. to initiate full democratic elections
 - iii. both 'i' and 'ii'
 - iv. neither 'i' nor 'ii'
2. How did Morusa realize that he had unknowingly killed his own beloved? **3**
3. *That was the last friendly tussle we had. It did not affect our relations in the least. I could see and appreciate all the love by which all my friend's efforts were actuated, and my respect for him was all the greater on account of our differences in thought and action.* Validate the importance of respecting differences in the context of the given extract from the lesson, 'Imitating the English Gentleman'.

Or

3

'Pienaar understood Mandela's underlying message.' What was Mandela's underlying message for Francois Pienaar?

4. What is the theme of the lesson 'Macbeth'? Cite examples from the lesson to substantiate your answer. **5**
- Or**

"People all over the world had said that Mandela's people needed a leader. He gave them a champion!" Who do you think is the real champion – Mandela or Pienaar. Justify your answer.

5. **Answer either 5(i) or 5 (ii) or 5 (iii)** **5**

- (i) Read the lines and answer the questions that follow:

*As the villagers smoked the lovers' bodies
For the last rites, they watched in silent awe
At the two smokes rising high up in the air
Holding hands in their mingled ecstasy
Their spirits riding the valleys of peace.*

- (a) Pick out the antonym of the word 'agony' from the above lines. (1)
(b) Explain as the villagers smoked the lovers' body. (2)
(c) Why did they watch in silent awe? (2)
- (ii) Give the summary of the poem, 'Death the Leveller'. (5)

- (iii) (a) Hopkins compares the windhover to many things. What are they and what characteristic of the bird do they reveal?

Or

- (b) 'This poem is a classic example of imagination, mystery and creativity.'
Comment. (The Listeners) (5)

6. *"It's the second one of the third pair I knitted, and I put three score stitches, and I dropped four of them."*

- (i) Who is 'I' referred to here? **1**
(ii) What is the speaker talking about? **2**

7. Give the character sketch of Maurya.

Or

Why did Nora and Cathleen hide the bundle given by the young priest from their mother? **3**

SECTION - B (Reading)

8. **Read the passage given below and answer the questions that follow:**

- (1) Living a lane away from Delhi's busiest artery – the Ring Road – my biggest worries should be the vehicular fumes that float into my house, but even before I get the nearest Station AQI (Air Quality Index) notification on my mobile phone every morning, I am already awake from the traffic noise.
- (2) A research study in Berlin last year found that Delhi is only second to China's Guangzhou in terms of the degree of hearing loss suffered by citizens in proportion to their age. Cities least affected by noise pollution, namely Zurich, Vienna, Oslo and Munich, registered the lowest levels of decline in hearing.

- (3) Honking is banned in India near schools and hospitals. But the rule is routinely broken. The offenders cannot be penalized because traffic police, the prosecuting agency, do not have sound measuring machines. It anyway does not matter since the fine is as low as Rs. 100/-.
- (4) Eleven years ago, the Master Plan for Delhi red-flagged sound pollution as a pressing problem. It directed the authorities to prepare an area-wise "traffic-calming scheme" and a noise monitoring and control plan. But implementation of these measures has remained a big task, considering the capital does not have the means or even the administrative will to tackle the basics.
- (5) The bulk of noise pollution can only be controlled by making improvement in traffic management and enforcing better driving habits. Controlling vehicle speed helps since the ones moving below 60 kmph emit least sound.
- (6) "Calling noise a nuisance is like calling smog an inconvenience," said Dr William H. Stewart, former Surgeon General of the United States. In a city where continuous honking has become almost the default mode of driving, it is worth remembering that horns were invented to warn other road users or animals of the vehicle's approach, and not prove their loudness!

(Source: ASSET)

- (i) Answer the following questions:
 - (a) Name any two cities least affected by noise pollution? **1**
 - (b) Why is it difficult to penalize offenders of noise pollution? **2**
 - (c) According to the passage, how can the bulk of noise pollution be controlled? **2**

- (ii) Answer the questions given below as directed: **3x1=3**
 - (a) '*Living a lane away from Delhi's busiest artery*' – Which of the following options is a synonym of the underlined word in the given context? (Paragraph 1)
 - i. a traffic junction
 - ii. a major route for traffic flow
 - iii. a market place
 - iv. a highly populated area

 - (b) Why did the master plan for Delhi fail to be implemented? (Paragraph 4)
 - A. poor planning
 - B. low enthusiasm
 - C. lack of funds
 Select the correct option.
 - i. Only A
 - ii. Only B
 - iii. Only A and C
 - iv. Only B and C

 - (c) Which of these terms best describes the author's tone in the last paragraph of the passage?
 - i. sarcastic
 - ii. optimistic
 - iii. apologetic
 - iv. sympathetic

9. **Read the passage given below and answer the questions that follow:**

(1) Power foods are foods that provide rich levels of nutrients like fibre, potassium and minerals. With people becoming increasingly health conscious today, a lot of fitness trainers encourage their clients to include these foods in their daily diet to increase muscle development. There are various ways of incorporating power foods in your daily diet. Of course, the key to enjoying power foods is proper preparation of these foods, the use of season-fresh foods, and indentifying your choice of flavour among power foods.

(2) Some of the recommended power food combinations are those that are prepared in our kitchens on a regular basis. Take for instance, the combination of chickpeas and onions. This combination is a powerful source of iron which is required by the body to transport oxygen to its various parts. Iron deficiency can lead to anaemia, fatigue, brain fog and tiredness. A study by the Journal of Agricultural and Food Chemistry says that sulphur compounds in onion and garlic help in the absorption of iron and zinc from chickpeas. The combination is a hit with teenagers who need to be diligent about getting iron in their diet. A quick way to prepare this power food is to make a chickpea salad with chopped onions, chaat masala and cilantro.

(3) Another favourite combination with power food takers is yoghurt and bananas. This makes for a perfect snack after a rough game of football. Exercising burns glucose and thus lowers blood sugar. Yoghurt is packed with proteins that help preserve muscle mass, and bananas are packed with carbohydrates that help in refuelling energy and preventing muscle soreness. A quick and easy recipe with bananas is a banana smoothie topped with cool yoghurt.

(4) Among beverages, green tea is the best source of catechins that are effective in halting oxidative damage to cells. According to researchers at the Purdue University, adding a dash of lemon juice to green tea makes the catechins even more easily absorbable by the body. So, the next time you have friends in the house, serve them rounds of iced green tea with mint and lemon juice.

(i) Answer the following questions:

- (a) What are power foods? **1**
- (b) Why is a combination of chick peas and onion considered as power foods? **2**
- (c) Which beverage is considered the best source of catechins and why? **2**

(ii) Read the passage and answer the questions given below as directed:

3x1=3

- (a) Why do fitness trainers recommend power foods for their clients?
(Paragraph 1)
 - i. for better digestion
 - ii. to lower blood sugar
 - iii. for muscle development
 - iv. to burn glucose

- (b) Yoghurt is packed with proteins that help preserve muscle mass-Which of the following is the correct antonym of the underlined word? (Paragraph 3)
- i. maintain
 - ii. damage
 - iii. shield
 - iv. freeze
- (c) _____ makes a perfect snack after a rough game. (Paragraph 3)
- i. Yoghurt and chickpeas
 - ii. Onion and cilantro
 - iii. Yoghurt and onion
 - iv. Yoghurt and banana

10. **Read the poem carefully and fill in the blanks:**

Song

When I am dead, my dearest,
 Sing no sad songs for me;
 Plant thou no roses at my head,
 Nor shady cypress tree:
 Be the green grass above me
 With showers and dewdrops wet;
 And if thou wilt, remember,
 And if thou wilt, forget.

I shall not see the shadows,
 I shall not feel the rain;
 I shall not hear the nightingale
 Sing on, as if in pain:
 And dreaming through the twilight
 That doth not rise nor set,
 Haply I may remember,
 And haply may forget.

(Christina Rossetti)

(i) 'Sing no sad songs for me'

Choose the correct poetic device used in the given line.

1

- | | |
|-----------------|--------------------|
| a. metaphor | b. simile |
| c. alliteration | d. personification |

(ii) Fill in the blanks to complete the summary of the poem:

6x½=3

The poetess says that when she dies, let no sad song be sung, neither roses be planted on her _____ nor shady cypress tree. But she wishes that the _____ be grown above her with showers and dew drops to wet. And she wishes the readers to neither remember or _____. However, she could neither see the _____ nor feel the _____ or hear the nightingale sing in pain and dream through the _____. She would perhaps remember or forget.

SECTION -C (Writing)

11. Answer **any one** of the following in about 60-80 words: 4
- a. As the President of the Social Service Club of your school, draft a notice for students and staff, appealing for help, in cash or kind, for the recent fire victims of a nearby village.
- Or**
- b. Draft a suitable classified advertisement , bearing in mind the details provided below:
A two bedroom apartment is available for sale in Gautam Nagar in Delhi. It is on the second floor and available for immediate occupation.

12. Write a paragraph in about 60-80 words on , ‘Good health’ using the inputs given: 4
- Good health-most precious possession-healthy minds, healthy bodies-essentials of good health-nutritious food, fresh air, exercise, sleep etc- avoid things bad for health-smoking, over eating, lack of exercise
13. Based on the visual input given below, write on “ Ban on single use plastics” in about 100-150 words: 5



Alternate question only for the visually impaired students: *ONLY the visually impaired are to attempt this alternate question.* (5)
Based on the inputs given below, write on ‘Effects of climate change’ in about 100-150 words.

glaciers retreat-changes in timing of seasonal events-changes in agricultural production-forestry etc-change in water, air, food quality- in eco system-decrease in water resources

14. Answer **any one** of the following in about 200 words: 7
- a. You are Sam, the co-ordinator of a coaching institute which prepares students for Medical and Engineering entrance exams. You want to hold a seminar in St.Joseph’s High School for the students of Class X and XII. Write a letter on behalf of your institute requesting the Principal of the school to allow you to conduct this seminar.
- Or**
- b. As the Secretary of the Literary Club of Summerfield School, write a report for the children’s magazine on the activities of the Club in about 200 words.

SECTION- D (Grammar)

15. Rewrite the given sentences as directed in the brackets: **5x1=5**
- (a) _____ parent came to meet the Principal.
(Fill in the blank with a distributive determiner)
 - (b) _____ is exhilarating.
(Fill in the blank with a suitable non-finite verb)
 - (c) The wood-cutter felled a huge tree.
(State whether the underlined word is transitive or intransitive verb)
 - (d) The earth revolves round the sun.
(Underline the phrase)
 - (e) I must decide _____.
(Complete the sentence with a noun clause)
16. Change the narration: **4x1=4**
- (a) She said to me, "I will reach home tomorrow."
 - (b) The teacher asked whether we were going home then.
 - (c) The priest said to us, "Serve suffering humanity if you want to enter the kingdom of heaven."
 - (d) My friend told me that he could easily beat me in long jump.
17. Change the voice: **3x1=3**
- (a) They have cut all telephone wires.
 - (b) This work will be finished by tomorrow.
 - (c) All trust an honest man.
18. Identify the adverb clause in the following sentences and state its kind: **3x1=3**
- (a) As long as a person is at the top, people will show him respect.
 - (b) Sandip completed his graduation so that he could get a better job.
 - (c) Jane ran as if the wind was chasing her.

ALTERNATIVE ENGLISH – IX & X

DESIGN OF QUESTION PAPER

Weightage to different forms of questions:

Unit	Details of Topics/Sections	Types of questions	No. of questions	Marks	Total Marks
Unit I – Reading	- One unseen passage of 300 words	MCQ/	3	3x1=3	10
		SAI	1	1x2=2	
	- One literary piece/poem	MCQ/	3	3x1=3	
		SAI	1	1x2=2	
Unit II – Writing and Applied Grammar	- Two writing items in about 100-150 words, i.e. a newspaper report, article, story writing, dialogue.	LA II	2	2x6=12	12
		SA I	4	4x2=8	
	- Grammar section will assess grammar items in context.				
Unit III – Literature	Prose/Poetry	MCQ	8	8x1=8	35
		SA I	3	3x2=6	
		SA II	4	4x4=16	
		LA I	1	1x5=5	
	Drama/Fiction	MCQ	2	2x1=2	15
		SA I	2	2x2=4	
		SA II	1	1x4=4	
		LA I	1	1x5=5	

Sl. no.	Forms of questions	Marks for each question	No. of questions	Total marks
1.	MCQ	1	16	16
2.	SA-I	2	11	22
3.	SA-II	4	5	20
4.	LA-I	5	2	10
5.	LA-II	6	2	12
	Total		36	80

Weightage level of questions:

Sl.no.	Level	Percentage	Marks
1.	Easy	25	20
2.	Average	60	48
3.	Difficult	15	12
	Total	100	80

Scheme of options:

Internal choice shall be provided in:

- i. 2(two) questions of 4 marks.
- ii. 1(one) question of 5 marks.
- iii. 2(two) questions of 6 marks.

Note:

1. Minimum 10% of the marks will be of Higher Order Thinking Skills (HOTS)/ Competency Based Questions.

MAJOR/MODERN INDIAN LANGUAGES (MILs) – IX

DESIGN OF QUESTION PAPER

Weightage to different forms of questions:

Section	Details of Topics/Sections	Types of questions	No. of questions	Marks	Total Marks
Section A- Reading	One unseen passage of 300 – 400 words. There will be questions to test vocabulary and grammar.	MCQ	6	6x1=6	10
		SA I	2	2x2=4	
Section B- Writing	- Informal Letter Writing/ Story Writing - Advertisement/Notice	LA II	1	1x6=6	10
		SA II	1	1x4=4	
Section C- Grammar	Grammar	MCQ	5	5x1=5	20
		VSA	10	10x1=10	
		VSA	5	5x1=5	
Section D- Literature	Prose	MCQ	3	3x1=3	20
		SA I	4	4x2=8	
		SA II	1	1x4=4	
		LA I	1	1x5=5	
	Poetry	MCQ	2	2x1=2	20
		SA I	2	2x2=4	
		SA II	1	1x4=4	
		LA I	2	2x5=10	

Sl. no.	Forms of questions	Marks for each question	No. of questions	Total marks
1.	MCQ	1	16	16
2.	VSA	1	15	15
3.	SA - I	2	8	16
4.	SA - II	4	3	12
5.	LA - I	5	3	15
6.	LA- II	6	1	6
	Total		46	80

Weightage level of questions:

Sl.no.	Level	Percentage	Marks
1.	Easy	25	20
2.	Average	60	48
3.	Difficult	15	12
	Total	100	80

Scheme of options:

Internal choice shall be provided in;

- i. 2(two) questions of 4 marks.
- ii. 1(one) question of 5 marks.
- iii. 2(two) questions of 6 marks.

Note:

1. Minimum 10% of the marks will be of Higher Order Thinking Skills (HOTS)/ Competency Based Questions.

MAJOR/MODERN INDIAN LANGUAGES (MILs) - X

DESIGN OF QUESTION PAPER

Weightage to different forms of questions:

Section	Details of Topics/Sections	Types of questions	No. of questions	Marks	Total Marks
Section A- Reading	One unseen passage of 300 – 400 words. There will be questions to test vocabulary and grammar.	MCQ	6	6x1=6	10
		SA I	2	2x2=4	
Section B- Writing	- Formal Letter Writing/ Report Writing - Invitation/ Dialogue Writing	LA II	1	1x6=6	10
		SA II	1	1x4=4	
Section C- Grammar	Grammar	MCQ	5	5x1=5	20
		VSA	10	10x1=10	
		VSA	5	5x1=5	
Section D- Literature	Prose	MCQ	3	3x1=3	20
		SA I	4	4x2=8	
		SA II	1	1x4=4	
		LA I	1	1x5=5	
	Poetry	MCQ	2	2x1=2	20
		SA I	2	2x2=4	
		SA II	1	1x4=4	
		LA I	2	2x5=10	

Sl. no.	Forms of questions	Marks for each question	No. of questions	Total marks
1.	MCQ	1	16	16
2.	VSA	1	15	15
3.	SA - I	2	8	16
4.	SA - II	4	3	12
5.	LA - I	5	3	15
6.	LA- II	6	1	6
Total			46	80

Weightage level of questions:

Sl.no.	Level	Percentage	Marks
1.	Easy	25	20
2.	Average	60	48
3.	Difficult	15	12
Total		100	80

Note:

1. Minimum 10% of the marks will be of Higher Order Thinking Skills (HOTS)/Competency Based Questions

Sample Question Paper 2023
ALTERNATIVE ENGLISH - X

Total marks: 80

Time: 3 hours

General instructions:

- i) *Approximately 15 minutes is allotted to read the question paper and revise the answers*
- ii) *The question paper consists of 21 questions. All questions are compulsory.*
- iii) *Internal choice has been provided in some questions.*
- iv) *Marks allocated to every question are indicated against it.*

N.B: Check that all pages of the question paper are complete as indicated on the top left side.

Unit – I (Reading)

1. Read the passage and answer the questions that follow:

The villager has customarily been very conservative in his attitude and approach. He is reluctant to change his traditional way of thinking and doing things. His attitude in many respects is, 'Home-made is best.' For instance, most cattle farmers in the village prefer to feed their cows and buffaloes with a home-made mix comprising local oil-cakes like mustard of cotton seed, pulses etc. It takes numerous visits, hard convincing, daily trials and experiments to convince the rural cattle farmers that compound feeds, scientifically formulated, improve the yields of milk, without any increment costs. The age-old values and attitudes take a long time to change. The villager has traditionally been a believer in the philosophy of 'karma' or 'fate'. He has found it more convenient to blame his misfortunes on karma and fate. Many of the antiquated attitudes, value-system and outlook are changing, due to improved levels of awareness and education. However the rate of change is sluggish. Attitudes that have fossilized over the centuries, do take time to change.

On the basis of your reading of the passage, answer the following questions:

- a. What is bringing about a change in the attitudes and value-system of the villager?

2

Choose the correct option from the alternatives given:

3x1=3

- b. What is the normal attitude and approach of a villager?

- | | |
|----------------|-------------------|
| i. Pessimistic | iii. Conservative |
| ii. Modern | iv. Up-to-date |

- c. What method of feeding the cattle does the villager prefer?

- | | |
|------------------|-------------------------|
| i. Company based | iii. Scientific method |
| ii. Home-made | iv. Experimental method |

- d. What values and attitudes take a long time to change?

- | | |
|-----------------|---------------|
| i. Pre-historic | iii. Medieval |
| ii. Current | iv. Ancient |

2. Read the poem and answer the questions that follow:

I wish I had a dragon
With diamond studded scales,
With claws like silver sabers,
And fangs like silver nails,
A dragon fierce and faithful,
Always ready by my side,
A dragon to defend me
Or take me for a ride.
I wish I had a dragon
With eyes of shining gold,
Who breathed a plume of fire
Whenever it was told,
A dragon so ferocious
It might frighten Frankenstein,
But not a lazy dragon
Who sleeps all day...like mine! (Shel Silverstein)

On the basis of your reading of the poem, choose the correct answer: 3x1=3

- a. What kind of dragon does the poet wish to have?
- | | |
|---------------------|----------------------|
| i. A lazy dragon | iii. A loyal dragon |
| ii. A gentle dragon | iv. A violent dragon |
- b. What is the synonym for the word, 'fierce'?
- | | |
|----------------|------------------|
| i. Indifferent | iii. Non-violent |
| ii. Brutal | iv. Meek |
- c. Which line in the poem says that the poet wants a fire-breathing dragon?
- | | |
|-------------------------------|-----------------------------------|
| i. Fangs like silver nails | iii. Who breathed a plume of fire |
| ii. With eyes of shining gold | iv. Who sleeps all day |

Write true or false: 4x½=2

- d. The poet wishes for a lazy dragon.
e. The poet wishes for a dragon with diamond studded scales.
f. The poet wishes for a dragon that can fly.
g. The dragon's eyes should be shining silver.

Unit – II (Writing and Applied Grammar)

3. a. Write an Article in about 100-150 words on 'Women Empowerment'.

Or

6

- b. You are a journalist with the daily newspaper, 'Times of India.' You were at a gas filling station when you saw armed robbers who fired at the manager and ran away with a bag full of money. Write a newspaper Report in about 150-200 words.

4. a. Write a story in about 150-200 words about a boy who loves to prank others- but has learnt a valuable lesson.

Or

6

- b. Elina is a very quiet and shy student in your class. Introduce yourself to Elina and begin a conversation with her. Talk about sports, hobbies and other activities.
5. **Fill in the blanks with the correct Degrees of Comparison:** **2x1=2**
Mimi is very ____ (intelligent). She is the ____ among her siblings (young).
6. **Change the Voice of the following sentences:** **2x1=2**
a. Mechanics repair cars.
b. The football trophy was won by the Blue House.
7. **Fill in the blanks with suitable Conjunctions:** **4x½ =2**
I went to the park ____ my friends. We played every game there ____ now I am really tired ____ I don't mind the tiredness ____ I have had a lovely day.
8. **Complete the sentences as directed in the brackets:** **2x1=2**
a. I will meet you _____ 10 o'clock. (Fill in the blank with the correct Preposition)
b. She looks as if she is sick. (Underline the Adverb Clause in the sentence)

Unit – III (Literature)

9. **Choose the correct answer from the alternatives given:** **10x1=10**
- i. How many minutes does it take for Toshi and his friends to reach the road?
a. 5-6 minutes
b. 6-7 minutes
c. 7-8 minutes
d. 8-9 minutes
- ii. *'A flock of sheep that leisurely pass by
One after one; the sound of rain, and bees' (To Sleep)*
What does the poet, Wordsworth mean by '*leisurely*'?
a. Running together
b. One after the other
c. Swiftly
d. Slowly
- iii. Where is the house situated in '*The Ambitious Guest*'?
a. In the notch
b. Top of a mountain
c. In a safe place
d. Near the river
- iv. What did Anne Frank receive from Peter on her fifteenth birthday?
a. A book
b. Candy
c. Flowers
d. A handkerchief
- v. What breaks forth from the heart when old words die out in the poem, '*Closed path*'?
a. Creativity
b. New melodies
c. New country
d. God's will

16. a. "Mr. Koophuis is out of the hospital. But his stomach won't give him a moment's peace- he had to go home again today because it is still troubling him."
 i. Why was Mr. Koophuis in the hospital? (1)
 ii. How long did he stay at the hospital? (1)
 iii. How did he respond to the sickness? (2)

Or

- b. How does Anne describe the eight residents of the Annex?
17. 'I wasn't born yet when they frequented our village. I missed such an exciting time in history by about five years.' (*Fragrance of the Gods*)
 i. Who is Toshi referring to as 'they'? (1)
 ii. What are the things that Toshi missed in the 'exciting time'? (3)
18. Based on your understanding of the poem, *Old Folks Laugh*, what can you say about the attitude of the old people?
19. 'Cleanse the bloodstain from hands that killed,
 Wipe the spot of hell from hearts that hate
 Take up this tangled strand of dark confusion' (*Prayer of the Meek*)
 i. Who is the poet talking about? (1)
 ii. What does the 'spot of hell' mean? (1)
 iii. What is the 'dark confusion' the poet is talking about? (2)

Read the lines and answer the questions that follow:

20. a. 'The sooner it gets there, the sooner it has an effect.' (*Man against Virus*)
 i. What is Pasteur referring to? **1**
 ii. How did Pasteur and Roux help 'it' to 'get there' sooner? **2**
 iii. Why is it the sooner, the more effective? **2**
- Or**
- b. 'It is strange, wife, how his talk set my head running on things that are pretty certain never to come to pass.' (*The Ambitious Guest*)
 i. What did the stranger talk about? (2)
 ii. How did the father wish to die? (3)
21. What are the similarities between Anne and Peter? In what way do these reasons contribute to them becoming closer? **3+2=5**

SCIENCE – IX & X

DESIGN OF QUESTION PAPER

Weightage to different forms of questions:

Sl. No.	Forms of questions	Marks for each question	No. of questions	Total marks
1.	MCQ	1	15	15
2.	SA –I	2	6	12
3.	SA –II	3	11	33
4.	LA	5	4	20
	Total		36	80

Weightage level of questions:

Sl.no.	Level	Percentage	Marks
1.	Easy	30	24
2.	Average	55	44
3.	Difficult	15	12
	Total	100	80

Scheme of options:

1. Internal choice shall be provided in any 5 (five) questions of 3 marks, and in any 2 (two) questions of 5 marks.
2. General choice shall be provided in 5 marks questions.

Note:

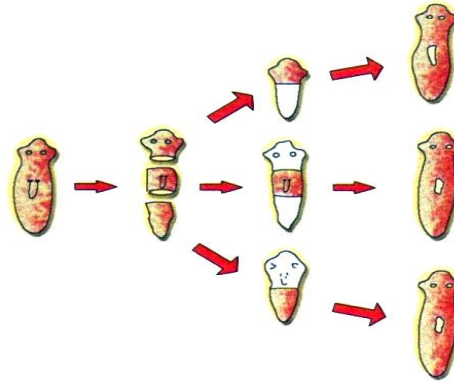
1. Minimum 10% of the marks will be of Higher Order Thinking Skills (HOTS)/ Competency Based Questions.

- (d) Which among the following metals is the most ductile? 1
 (i) Silver (ii) Gold
 (iii) Copper (iv) Aluminium

- (e) Food cans are coated with tin and not zinc because 1
 (i) zinc has a higher melting point than tin
 (ii) zinc is more reactive than tin
 (iii) zinc is less reactive than tin
 (iv) zinc is costlier than tin

- (f) The movement of a sunflower plant in accordance with the path of sun is due to 1
 (i) geotropism (ii) chemotropism
 (iii) hydrotropism (iv) phototropism

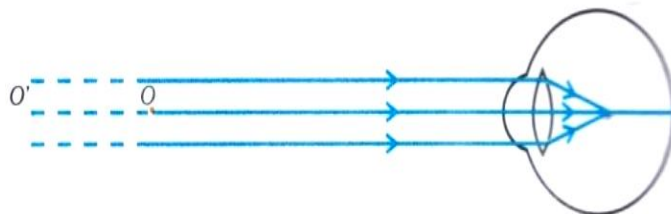
- (g) Identify the type of asexual reproduction shown in the given figure. 1



- (i) Regeneration (ii) Fragmentation
 (iii) Binary fission (iv) Multiple fission

- (h) If a tall pea plant is crossed with a pure dwarf pea plant, then what percentage of F_1 and F_2 generation respectively will be tall? 1
 (i) 25%, 25% (ii) 50%, 50%
 (iii) 100%, 75% (iv) 75%, 100%

- (i) In the refractive error shown in the given figure, which type of lens should be used to correct it? 1



- (i) Convex lens (ii) Concave lens
 (iii) Bi-focal lens (iv) Cylindrical lens

- (j) The light that deviates the most in a spectrum is 1
 (i) red (ii) green
 (iii) yellow (iv) violet

- (o) In an ecosystem, the 10% of energy available for transfer from one trophic level to the next trophic level is in the form of 1
- | | |
|-----------------------|------------------------|
| (i) heat energy | (ii) light energy |
| (iii) chemical energy | (iv) mechanical energy |

SECTION – B

Answer the following questions from Q. 2 to Q. 7 in about 20-30 words:

2. Two ores A and B were taken. On heating, ore A gave CO₂ whereas, ore B gave SO₂. Name the processes to convert ore A and ore B into its metals. 2
3. Give the structural differences between saturated hydrocarbons with one example each. 2
4. How is the mode of action in beating of the human heart different from reflex actions? Give two examples. 2
5. What is fertilization? Give the location of zygote after fertilization in a flower. 2
6. How does the use of a fuse wire protect electrical appliances? Write two points. 2
7. A student fixes a white sheet of paper on a drawing board. He places a bar magnet in the centre and sprinkles some iron fillings uniformly around the bar magnet. Then he taps gently and observes that iron fillings arrange themselves in a certain pattern. Answer the following based on the observation.
 - (a) Why do iron fillings arrange themselves in a particular pattern?
 - (b) State any one property of magnetic field lines. 2

SECTION – C

Answer the following questions from Q. 8 to Q. 18 in about 40-60 words:

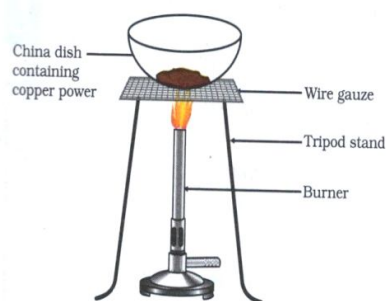
8. a. (i) $A + BC \rightarrow AC + B$
 (ii) $A \rightarrow B + C$
- Identify the two types of reactions given above. Give one example for each and balance it.

Or

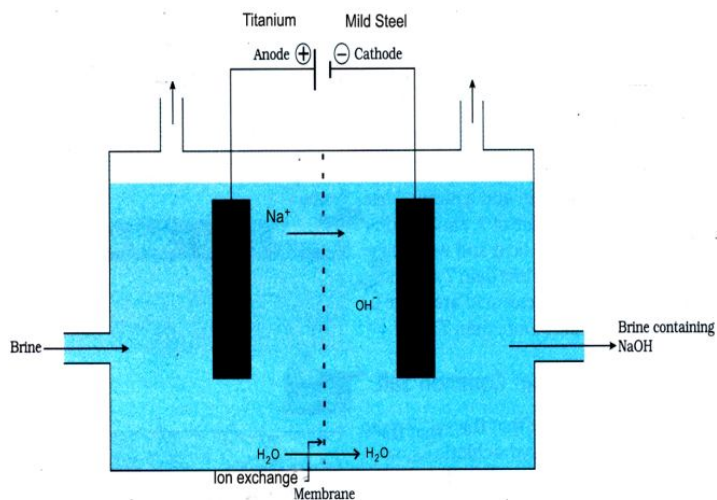
1+1+1=3

- b. In the given experimental setup:

- (i) Identify the type of reaction.
- (ii) Write the chemical reaction.
- (iii) What happens when hydrogen gas is passed over the product?



9.

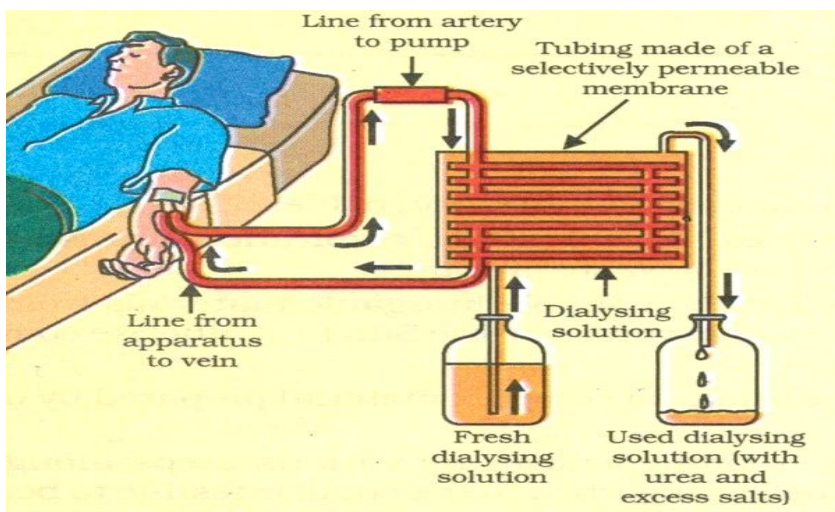


- (i) Identify the gases evolved at the anode and cathode in the above experimental set up.
- (ii) Name the process that occurs. Why is it called so? 2+1=3

10. John lives in a tin roof house; he observed that the colour of the outer roof has changed over time into a brownish colour.

- (i) What is the reason behind the change in colour?
- (ii) Suggest two ways in which it can be prevented. 1+2=3

11. a.



In the given figure, a patient is undergoing dialysis.

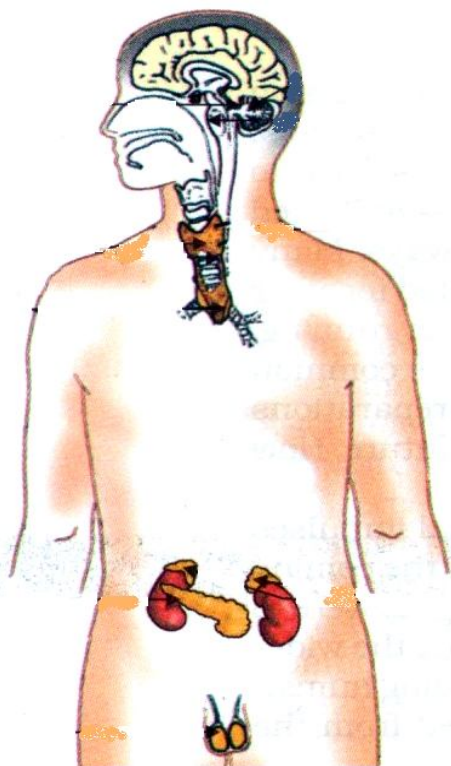
- (i) Why dialysis is recommended?
- (ii) Name the waste removed through dialysis.
- (iii) What is the consequence if waste is not removed from the body? 1+1+1=3

Or

- b. What is stomata? How do the guard cells regulate the opening and closing of stomata? (1+2=3)

12. Label the following parts in the given figure:
 (i) Adrenal glands (ii) Pancreas (iii) Thyroid gland
 (iv) Pituitary gland (v) Thymus (vi) Testis

$6 \times \frac{1}{2} = 3$



13. Show the F_1 and F_2 generation using Mendel monohybrid cross of pea plant with yellow and white flower colour. Give the phenotypic and genotypic ratio of F_2 .

$1\frac{1}{2} + 1\frac{1}{2} = 3$

14. a. Theja wants to get an erect image of an object using a converging mirror of focal length 40cm.
 (i) Specify the range of distance where the object has to be placed in front of the mirror. Justify.
 (ii) Draw a ray diagram to show the image formation in this case.

Or

$2 + 1 = 3$

- b. A lens of focal length 5cm is being used by Naro in the laboratory as a magnifying glass. She keeps a book at a distance 10cm from her eyes.
 (i) Where is the image formed?
 (ii) Draw a ray diagram to show the image formation.

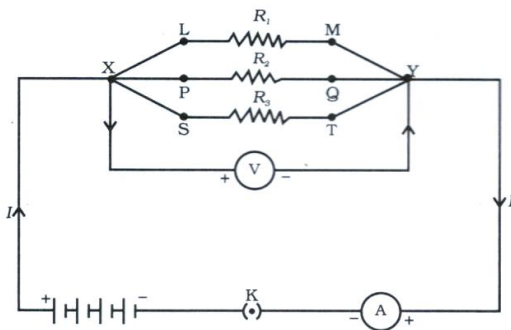
15. a. What is dispersion? Explain the formation of rainbow.

Or

$1 + 2 = 3$

- b. What is Tyndall effect? Why is the colour of the sky blue?

16. a.



In the given circuit diagram, suppose the resistors R_1 , R_2 and R_3 have the values 5Ω , 10Ω and 30Ω respectively, which are connected to a battery of 12V.

Calculate:

- The current through each resistor
- The total current in the circuit
- The total circuit resistance.

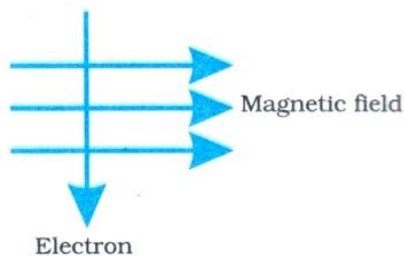
Or

3

- b. Two lamps, one rated 100W at 220V, and the other 60W at 220V, are connected in parallel series to the electric mains supply. What current is drawn from the line if the supply voltage is 220V? Calculate the total resistance in the circuit.

17. State Fleming's Left Hand Rule. An electron enters a magnetic field at right angles to it, as shown in the figure. What is the direction of force acting on the electron?

2+1=3



18. A lot of waste is generated in a neighborhood. However, almost all of it is biodegradable. What impact will it have on the environment of the neighborhood and on human health?

3

SECTION – D

Answer any 4 questions from the following questions, Q. 19 to Q. 23 in about 70-100 words:

19. a. What is esterification? Write the chemical reaction involved and name the reactants. Give two uses of esterification.

Or

1+2+2=5

- b. What is absolute alcohol? What is the role of concentrated sulphuric acid when it is heated with ethanol at 443K? Give the reaction. List two uses of ethanol.

(1+1+1+2=5)

20. a. Draw the human alimentary canal and explain how carbohydrates, proteins and fats gets digested.

Or

2+3=5

b. Draw and explain the human respiratory system.

21. Why are budding and fragmentation considered as asexual types of reproduction? With a neat diagram, explain the process of fission in Amoeba. Write one disadvantage of asexual over sexual reproduction.

2+2+1=5

22. Define power of a lens. What is its unit? One student uses a lens of focal length +50cm and another uses -50cm. What is the nature of the lens and its power used by each of them?

1+1+3=5

23. Suggest any five ways we can practice in our daily lives which are ecofriendly.

5×1=5

MATHEMATICS-A (IX & X)

DESIGN OF THE QUESTION PAPER

Weightage to different forms of questions:

Section	Forms of questions	Marks for each question	No. of questions	Total Marks
A	MCQ	1	15	15
B	SA-I	2	7	14
C	SA-II	3	12	36
D	LA	5	3	15
Total :			37	80

Weightage level of questions:

Sl.No.	Level	Percentage	Marks
1.	Easy	20	16
2.	Average	60	48
3.	Difficult	20	16
Total :		100	80

Scheme of options:

1. Internal choice shall be provided in *any* 6 (six) questions of 3 marks in Section C.
2. General choice shall be provided in *all* 3 (three) questions of 5 marks in Section D.
3. The internal choice and general choice questions shall be set from the same unit with the same difficulty level.
4. Minimum 10% of the marks will be of Higher Order Thinking Skills (HOTS)/ Competency Based Questions.

Sample Question Paper 2023
MATHEMATICS A (X)

Total marks : 80

Time : 3 hours

General Instructions:

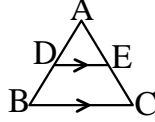
- i) *Approximately 15 minutes is allotted to read the question paper and revise the answers.*
- ii) *The question paper consists of 23 questions.*
- iii) *All questions are compulsory.*
- iv) *Internal choice and General choice have been provided in some questions.*
- v) *Marks allocated to every question are indicated against it.*

N.B: *Check to ensure that all pages of the question paper is complete as indicated on the top left side.*

Section – A

1. Choose the correct answer from the given alternatives.

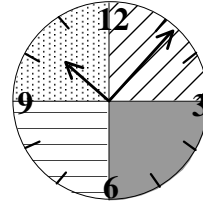
- (a) How many zeroes are there in the polynomial $14x + x^2 + 49$? **1**
(i) 0 (ii) 2 (iii) 4 (iv) 7
- (b) The graph of the pair of equations $x - 2y = 0$ and $3x + 4y - 2 = 0$ represents **1**
(i) intersecting lines. (ii) coincident lines.
(iii) parallel lines. (iv) cannot be determined from the graph.
- (c) The nature of the roots of the quadratic equation $2x^2 - 4x + 3 = 0$ is **1**
(i) real and distinct. (ii) real.
(iii) unreal . (iv) equal.
- (d) If the n^{th} term of an AP is given by $2n + 1$, then what is the common difference? **1**
(i) -2 (ii) -1 (iii) 1 (iv) 2
- (e) As θ increases from 0° to 90° , how does $\tan \theta$ vary? **1**
(i) Increases from 0 to not defined.
(ii) Decreases from not defined to 0.
(iii) Increases from 0 to 1.
(iv) Decreases from 1 to 0.
- (f) If the length of the shadow of a pole on a level ground is equal to the length of the pole, the angle of elevation of the sun is **1**
(i) 30° (ii) 45° (iii) 60° (iv) 90°
- (g) Y is a point on y-axis at a distance of 4 units from x-axis lying below x-axis. The coordinates of Y are **1**
(i) $(4, 0)$ (ii) $(0, 4)$ (iii) $(-4, 0)$ (iv) $(0, -4)$

- (h) If $\triangle ABC \sim \triangle PQR$, $\angle B = 45^\circ$ and $\angle C = 60^\circ$, what is the measure of $\angle Q$? 1
- (i) 45° (ii) 60° (iii) 75° (iv) 105°
- (i) In the given figure, $DE \parallel BC$ and $\frac{AD}{DB} = \frac{3}{5}$.  1
- If $AC = 5.6$ cm, then $AE = ?$
- (i) 4.2 cm (ii) 3.1 cm (iii) 2.8 cm (iv) 2.1 cm
- (j) What is the angle with which the tangent to a circle makes with the radius, at the point of contact? 1
- (i) 0° (ii) 45° (iii) 90° (iv) 180°
- (k) The area of a sector of central angle 4θ of a circle of radius r is 1
- (i) $\frac{\pi r\theta}{10^\circ}$ (ii) $\frac{\pi r\theta}{30^\circ}$ (iii) $\frac{\pi r^2\theta}{10^\circ}$ (iv) $\frac{\pi r^2\theta}{30^\circ}$
- (l) A cylinder and a cone have the same height and radius. What is the ratio of the volume of the cylinder to the volume of the cone? 1
- (i) 1 : 3 (ii) 1 : 2 (iii) 2 : 1 (iv) 3 : 1
- (m) The mode and median of a distribution are 65 and 51 respectively. What is the value of mean? 1
- (i) 58 (ii) 44 (iii) 23 (iv) 14
- (n) In the formula for finding mean, $\bar{x} = a + h \left(\frac{\sum f_i u_i}{\sum f_i} \right)$, what is the value of u_i ? 1
- (i) $\frac{x_i + a}{h}$ (ii) $\frac{x_i - a}{h}$ (iii) $\frac{a - x_i}{h}$ (iv) $\frac{1 + x_i a}{h}$
- (o) What is the total number of possible outcomes when two unbiased coins are tossed simultaneously? 1
- (i) 0 (ii) 2 (iii) 3 (iv) 4

Section – B

2. Show that $\frac{3 + \sqrt{7}}{5}$ is an irrational number, given that $\sqrt{7}$ is irrational. 2
3. Find the value of k for which the quadratic equation $2x^2 + kx + 3 = 0$ has equal roots. 2
4. If $15\cot A = 8$, find $\sin A$ and $\sec A$ with the help of a right angled triangle. 2

5. A tower 30 m high casts a shadow $10\sqrt{3}$ m long on the ground. What is the angle of elevation of the sun? 2
6. Find the distance between the pair of points (a, b) and $(-a, -b)$. 2
7. A tangent PQ, at a point P of a circle of radius 5 cm, meets a line through the centre O at a point Q, so that $OQ = 12$ cm. Find the length of PQ. 2
8. John painted the face of a circular clock of radius 21 cm, which is divided into four equal parts (as shown in the figure) using four different colours. Find the area of each equal coloured part. [Use $\pi = \frac{22}{7}$] 2



Section – C

9. Find a quadratic polynomial whose sum and product of zeroes are 1 and -6 respectively. Also, find its zeroes. 3
10. a. Solve the given pair of linear equations by substitution method:

$$\frac{3x}{2} - \frac{5y}{3} = -2 \quad \text{and} \quad \frac{x}{3} + \frac{y}{2} = \frac{13}{6}$$
3
- Or**
- b. Find the nature of the roots of the equation $3x^2 - 4\sqrt{3}x + 4 = 0$. If the real roots exist, find them.
11. Determine the AP whose 3rd term is 16 and the 7th term exceeds the 5th term by 12. 3
12. a. Evaluate:
$$\frac{\sin 30^\circ + \tan 45^\circ - \operatorname{cosec} 60^\circ}{\sec 30^\circ + \cos 60^\circ + \cot 45^\circ}$$
3
- Or**
- b. Prove the identity:
$$\frac{\sin \theta - 2 \sin^3 \theta}{2 \cos^3 \theta - \cos \theta} = \tan \theta$$
, where the angles involved are acute angles.
13. a. The shadow of a tower standing on a level ground is found to be 40 m longer when the sun's altitude is 30° than when it is 60° . Find the height of the tower. 3
- Or**
- b. From a point on the ground, the angles of elevation of the bottom and the top of a transmission tower, fixed at the top of a 20 m high building, are 45° and 60° respectively. Find the height of the tower.

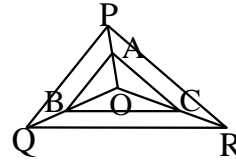
14. a. If $P(9a-2, -b)$ divides the line segment joining the points $A(3a+1, -3)$ and $B(8a, 5)$ in the ratio $3 : 1$, find the values of a and b .

Or

3

- b. If $PQ = QR$, where P, Q and R have coordinates $(6, -1), (1, 3)$ and $(a, 8)$ respectively, then find the value of a .

15. a. In the adjoining figure, A, B and C are points on OP, OQ and OR respectively, such that $AB \parallel PQ$ and $AC \parallel PR$. Show that $BC \parallel QR$.

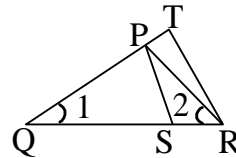


Or

3

- b. In the adjoining figure, $\frac{QR}{QS} = \frac{QT}{PR}$ and $\angle 1 = \angle 2$.

Show that $\triangle PQS \sim \triangle TQR$.



16. Prove that the lengths of tangents drawn from an external point to a circle are equal.

3

17. a. A chord of a circle of radius 15 cm subtends an angle of 60° at the centre. Find the areas of the corresponding minor and major segments of the circle. [Use $\pi = 3.14$ and $\sqrt{3} = 1.73$]

Or

3

- b. A cubical block of side 7 cm is surmounted by a hemisphere. What is the greatest diameter the hemisphere can have? Find the surface area of the solid.

18. A group of 82 people attended a workshop on a certain day. The following table shows their ages:

Age(in years)	Less than 20	Less than 30	Less than 40	Less than 50	Less than 60	Less than 70
Number of people	10	24	39	59	71	82

Based on the above information, compute the median age of the persons who attended the workshop.

3

19. The following table shows the daily expenditure on food of 25 households in a locality. Find the mean daily expenditure on food by Assumed Mean method.

3

Daily expenditure (in `)	100-150	150-200	200-250	250-300	300-350
Number of households	4	5	12	2	2

20. A box contains 90 discs which are numbered from 1 to 90. If one disc is drawn at random from the box, find the probability that it bears: (i) a two-digit number (ii) a perfect square number (iii) a number divisible by 5. 3

Section – D

21. Answer any one from the following questions (a) to (c). 5

a. 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

b. The sum of the digits of a two-digit number is 9. Also, nine times this number is twice the number obtained by reversing the order of the digits. Find the number.

Or

c. A manufacturer of TV sets produced 600 sets in the third year and 700 sets in the seventh year. Assuming that the production increases uniformly by a fixed number every year, find: (i) the production in the 1st year, (ii) the production in the 10th year, (iii) the total production in the first 7 years.

22. Answer any one from the following questions (a) to (c). 5

a. State and prove Thales Theorem.

Or

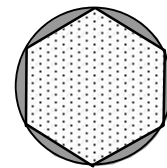
b. Sides AB and AC, and median of a triangle ABC are respectively proportional to sides PQ and PR, and median PM of another triangle PQR. Show that $\triangle ABC \sim \triangle PQR$.

Or

c. Prove that the opposite sides of a quadrilateral circumscribing a circle subtend supplementary angles at the center of the circle.

23. Answer any one from the following questions (a) to (c). 5

a. A round table cover has six equal designs (as shown in the figure). If the radius of the cover is 28 cm, find the cost of making the designs at the rate of ₹ 0.35 per cm^2 . [Use $\sqrt{3} = 1.73$]



Or

b. A tent is in the shape of a cylinder surmounted by a conical top. If the height and diameter of the cylindrical part are 2.1 m and 4 m respectively, and the slant height of the top is 2.8m, find the area of the canvas used for making the tent. Also, find the cost of the canvas of the tent at the rate of ₹ 500 per m^2 .

Or

b. A spherical glass vessel has a cylindrical neck 8 cm long, 2 cm in diameter; the diameter of the spherical part is 8.5 cm. By measuring the amount of water it holds, a child finds its volume to be 345 cm^3 . Check whether she is correct, taking the above as the inside measurements, and $\pi = 3.14$.

MATHEMATICS-B (X)

DESIGN OF THE QUESTION PAPER

Weightage to different forms of questions:

Section	Forms of questions	Marks for each question	No. of questions	Total Marks
A	MCQ	1	15	15
B	SA-I	2	7	14
C	SA-II	3	12	36
D	LA	5	3	15
Total :			37	80

Weightage level of questions:

Sl.No.	Level	Percentage	Marks
1.	Easy	40	32
2.	Average	50	40
3.	Difficult	10	8
Total :		100	80

Scheme of options:

1. Internal choice shall be provided in *any* 6 (six) questions of 3 marks in Section C.
2. General choice shall be provided in *all* 3 (three) questions of 5 marks in Section D.
3. The internal choice and general choice questions shall be set from the same unit with the same difficulty level.
4. Minimum 10% of the marks will be of Higher Order Thinking Skills (HOTS)/ Competency Based Questions.

Model Question Paper
MATHEMATICS B (X)

Total marks : 80

Time : 3 hours

General Instructions:

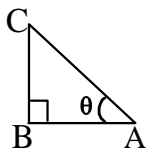
- i) *Approximately 15 minutes is allotted to read the question paper and revise the answers.*
- ii) *The question paper consists of 23 questions.*
- iii) *All questions are compulsory.*
- iv) *Internal choice and General choice have been provided in some questions.*
- v) *Marks allocated to every question are indicated against it.*

N.B: *Check to ensure that all pages of the question paper is complete as indicated on the top left side.*

Section – A

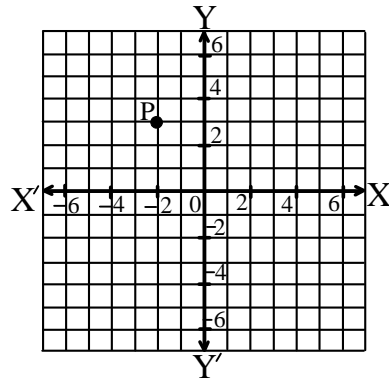
1. Choose the correct answer from the given alternatives.

- (a) What is the degree of the polynomial $x^3 + 3x^2 + 4x + 5$? **1**
(i) 1 (ii) 2 (iii) 3 (iv) 4
- (b) What is the coordinate of the point of intersection of x -axis and y -axis? **1**
(i) (0, 0) (ii) (1, 1) (iii) (2, 2) (iv) (3, 3)
- (c) In a quadratic equation $ax^2 + bx + c = 0$, if $b^2 - 4ac = 0$, what is the nature of the roots? **1**
(i) Two distinct real roots. (ii) Two equal real roots.
(iii) No real roots. (iv) One real and one unreal root.
- (d) Which of the following is an AP? **1**
(i) $-1.0, -1.5, -2.0, -2.5, \dots$ (ii) $0.5, 0.7, 1.0, 1.4, \dots$
(iii) $\frac{1}{4}, \frac{5}{4}, \frac{13}{4}, \frac{25}{4}, \dots$ (iv) $\sqrt{4}, \sqrt{9}, \sqrt{25}, \sqrt{64}, \dots$
- (e) In the figure given below, $BC = 2$ units and $AC = 4$ units. **1**
What is the value of θ ?



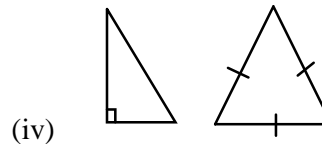
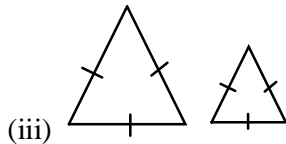
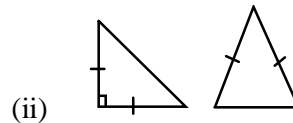
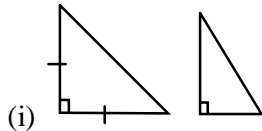
- (i) 0° (ii) 30° (iii) 45° (iv) 60°
- (f) If the angles of elevation of the sun is 45° , then what is the length of the shadow of 12 m high electric pole? **1**
(i) 6 m (ii) 12 m (iii) 24 m (iv) 48 m

- (g) In the given figure, what is the coordinate of the point P? 1



- (i) (2, 3) (ii) (-2, 3) (iii) (-2, -3) (iv) (2, -3)

- (h) Choose the pair of similar triangles from the following: 1



- (i) If ΔPQR and ΔXYZ are similar triangles such that, $\angle P = 30^\circ$, $\angle Y = 110^\circ$, then what is the value of $\angle R$? 1

- (i) 140° (ii) 80° (iii) 70° (iv) 40°

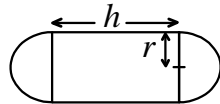
- (j) How many tangents can be drawn to a circle from one external point? 1

- (i) 0 (ii) 1 (iii) 2 (iv) Infinite

- (k) The area of a sector is $\frac{1}{3}$ of the area of a circle. What is the value of θ ? 1

- (i) 60° (ii) 90° (iii) 120° (iv) 180°

- (l) What is the total surface area of the adjoining figure? 1



- (i) $2\pi r^2 h$ sq.units (ii) $2\pi r^2(h + 1)$ sq.units
 (iii) $2\pi r^2(h + 2)$ sq.units (iv) $2\pi r^2(h + 3)$ sq.units

(m) The modal class of the following frequency distribution is: 1

Class interval	0-10	10-20	20-30	30-40	40-50	50-60
Frequency	3	9	15	30	18	5

- (i) 10-20 (ii) 20-30 (iii) 30-40 (iv) 40-50

(n) A class has lower limit 15 and upper limit 20. What is the class mark? 1

- (i) 7.5 (ii) 15 (iii) 17.5 (iv) 25.5

(o) What is the probability of getting a head when a coin is tossed once? 1

- (i) $-\frac{1}{2}$ (ii) 0 (iii) $\frac{1}{2}$ (iv) 1

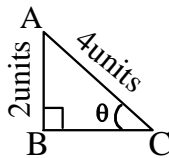
Section – B

2. Find the LCM and HCF of 26 and 91. 2

3. Find the roots of the quadratic equation $x^2 - 36 = 0$. 2

4. Evaluate: $\sin 30^\circ + \cos 60^\circ$ 2

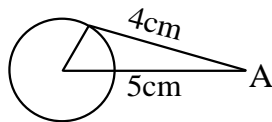
5. In the adjoining figure, if $AB = 2$ units and $AC = 4$ units, then find the value of θ .



2

6. Find the distance between the points (2, 3) and (4, 41). 2

7. The length of a tangent from a point A at a distance 5 cm from the centre of a circle is 4 cm. Find the radius of the circle. 2



8. Find the area of a circle whose radius is 7 cm. 2

Section – C

9. Find the zeroes of the quadratic polynomial $x^2 - 2x + 8$. 3

10. a. Solve the given pair of linear equations by substitution method:
 $x - y = 5$ and $2x - 3y = 4$

Or

b. Solve the given pair of linear equations by elimination method:
 $x + y = 5$ and $2x - y = 4$

3

11. How many three-digit natural numbers are divisible by 7? 3

12. a. If $\sin A = \frac{3}{4}$, find $\cos A$ and $\tan A$, with the help of a right-angled triangle.

Or 3

b. Prove the identity: $\sqrt{\frac{1+\sin A}{1-\sin A}} = \sec A + \tan A$, where the angles involved are acute angles.

13. a. The angle of elevation of the top of a tower from a point on the ground, which is 30 m away from the foot of the tower, is 30° . Find the height of the tower.

Or 3

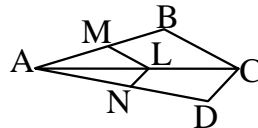
b. A tree breaks due to a storm and the broken part bends so that the top of the tree touches the ground, making an angle 30° with it. The distance between the foot of the tree, to the point where the top touches the ground, is 8 m. Find the height of the tree.

14. a. The coordinates of four points are A(1, 2), B(4, 6), C(5, 6) and D(2, 2). Show that $AB = CD$.

Or 3

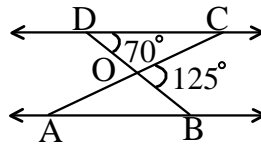
b. Find the coordinates of the points which divide the line segment joining A(-3, 3) and B(-3, -3) into two equal parts.

15. a. In the adjoining figure, if $LM \parallel CB$ and $LN \parallel CD$, prove that $\frac{AM}{AB} = \frac{AN}{AD}$



Or 3

b. In the adjoining figure, $\triangle ODC \sim \triangle OBA$, $\angle BOC = 125^\circ$ and $\angle CDO = 70^\circ$. Find $\angle DOC$, $\angle DCO$ and $\angle OAB$.



16. Prove that the tangents drawn at the ends of a diameter of a circle are parallel. 3

17. a. The length of the minute hand of a clock is 14 cm. Find the area swept by the minute hand in 5 minutes.

Or 3

b. 2 cubes each of volume 64 cm^3 are joined end to end. Find the surface area of the resulting cuboid.

18. A test of 20 marks is conducted on 40 students of Class-10 students of a school. The following table shows the result of the test:

Marks	0-5	5-10	10-15	15-20
Number of students	5	10	15	10

Based on the above information, find the mean marks of the students. 3

19. During the month of July 2020, the number of patients admitted for Covid-19 in a district Hospital, and their ages are given below. Find the median age. 3

Age (in years)	0-10	10-20	20-30	30-40	40-50	50-60
No. of patients	5	8	20	15	7	5

20. Two players, Avizo and Chingwang, play a tennis match. It is known that the probability of Avizo winning the match is 0.62. What is the probability of Chingwang winning the match? 3

Section – D

21. Answer any one from the following questions (a) to (c). 5

- a. Solve graphically the following pair of linear equations:
 $x + y = 8$ and $y = x - 2$

Or

- b. Mary went to a bank to withdraw ₹ 2000. She asked the cashier to give her ₹ 50 and ₹ 100 notes only. Mary got 25 notes in all. Find how many notes of ₹ 50 and ₹ 100 she received.

Or

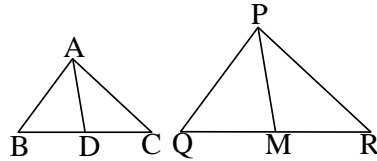
- c. The difference between two numbers is 26. If one number is three times the other, find the numbers.

22. Answer any one from the following questions (a) to (c). 5

- a. State and prove Basic Proportionality Theorem.

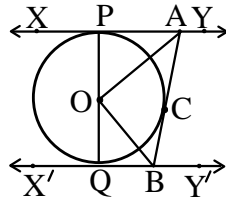
Or

- b. Sides AB and AC, and median AD of a triangle ABC are respectively proportional to sides PQ and QR, and median PM of ΔPQR. Show that ΔABC ~ ΔPQR.



Or

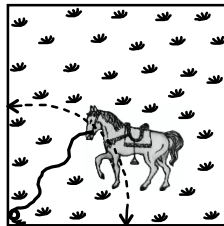
- c. In the adjoining figure, XY and $X'Y'$ are two parallel tangents to a circle with centre O and another tangent AB with point of contact C intersecting XY at A and $X'Y'$ at B . Prove that $\angle AOB = 90^\circ$



23. Answer any one from the following questions (a) to (c).

5

- a. A horse is tied to a peg at one corner of a square shaped grass field of side 15 m by means of a 5 m long rope. Find: (i) the area of that part of the field in which the horse can graze. (ii) the increase in the grazing area if the rope were 10 m long instead of 5 m. [Use $\pi = 3.14$]



Or

- b. A toy is in the form of a cone of radius 3.5 cm mounted on a hemisphere of same radius. The total height of the toy is 15.5 cm. Find the total surface area of the toy.

Or

- c. A solid iron pole consists of a cylinder of height 220 cm and base diameter 24 cm, which is surmounted by another cylinder of height 60 cm and radius 8 cm. Find the mass of the pole, given that 1 cm^3 of iron has approximately 8 g mass. [Use $\pi = 3.14$]

SOCIAL SCIENCES – IX & X

DESIGN OF QUESTION PAPER

Weightage to different forms of questions:

Sl. no.	Forms of questions	Marks for each question	No. of questions	Total marks
1.	MCQ	1	16	16
2.	SA-I	2	8	16
3.	SA-II	4	6	24
4.	LA	6	4	24
Total			34	80

Weightage level of questions:

Sl.no.	Level	Percentage	Marks
1.	Easy	30	24
2.	Average	50	40
3.	Difficult	20	16
Total		100	80

Scheme of options:

- i. Internal choice shall be provided in 4 marks and 6 marks questions.
- ii. Minimum 10% of the marks will be of Higher Order Thinking Skills (HOTS)/ Competency Based Questions.

Sample Question Paper 2023
SOCIAL SCIENCES - X

Full marks : 80

Time : 3 hours

General instructions:

- i) *Approximately 15 minutes is allotted to read the question paper and revise the answers.*
- ii) *The question paper consists of 19 questions. All questions are compulsory.*
- iii) *Internal choice has been provided in some questions.*
- iv) *Marks allocated to every question are indicated against it.*

N.B: Check that all pages of the question paper is complete as indicated on the top left side.

1. Choose the correct answer from the given alternatives:

- (a) Multinational Corporations (MNCs) are 1
(i) Foreign companies that flourish in the developing countries
(ii) Large companies that operates in several countries at the same time
(iii) Large companies that try to exploit small companies
(iv) West European and Japanese companies which exploit the developing Countries
- (b) Which of the following describes a system of agriculture where a single crop is grown on a large area? 1
(i) Shifting (ii) Horticulture
(iii) Intensive (iv) Plantation
- (c) Iron and steel industry is known as 1
(i) mineral industry (ii) chemical industry
(iii) basic industry (iv) electronic industry
- (d) The State List has 1
(i) 61 subjects (ii) 71 subjects
(iii) 81 subjects (iv) 91 subjects
- (e) In which of the following countries, life expectancy rate is highest? 1
(i) Sri Lanka (ii) India
(iii) China (iv) Afghanistan
- (f) Majority of the credit needs of the poor households are met from 1
(i) Formal sources (ii) Informal sources
(iii) Self-Help groups (iv) Government
- (g) Manufacturing sector is associated with the 1
(i) primary sector (ii) secondary sector
(iii) tertiary sector (iv) joint sector
- (h) World Consumer Rights Day is observed on 1
(i) March 15 (ii) April 15
(iii) May 15 (iv) June 15

- (i) Which of the following is the easternmost point of the Barail Mountain range? **1**
- (i) The Saramati range (ii) The Dzükou range
(iii) The Patkai range (iv) The Japfü range
- (j) Who was the first Speaker of the Nagaland Legislative Assembly? **1**
- (i) Mr. T.N. Angami (ii) Mr. K. Shikhu
(iii) Mr. K.V. Kreditsu (iv) Mr. E.T. Ezung
- (k) Which of the following would be an appropriate reason for stronger nations colonizing weaker regions/nation? **1**
- (i) Economic development of the region
(ii) Building relation with the people
(iii) To educate the people
(iv) Economic benefits of the colonial powers
- (l) Which of the following reasons make water renewable and rechargeable resource? **1**
- (i) Water table (ii) Hydrological cycle
(iii) Seas and oceans (iv) Surface run off
- (m) The most ideal means of transport for short distance travelling is the **1**
- (i) rail transport (ii) air transport
(iii) road transport (iv) water transport
- (n) A staunch patriot and the founder of the society called 'Young Italy'. Identify the person. **1**



- (i) Count Cavour (ii) Giuseppe Garibaldi
(iii) Giuseppe Mazzini (iv) Johann Gottfried

Note : The following question is for visually impaired candidates only in lieu of Q 1.(n)

- Who was considered as 'The Brain' of Italian nationalist. **(1)**
- (i) Count Camilo Cavour (ii) Giuseppe Garibaldi
(iii) Giuseppe Mazzini (iv) Phillip Veit
- (o) Arrange the following events in chronological order : **1**
- I. Ahmedabad Satyagraha
II. Champaran Satyagraha
III. Kheda Satyagraha
IV. Non-Cooperation Movement
- Options:**
- (i) III, IV, I, II (ii) II, III, I, IV
(iii) IV, III, II, I (iv) I, II, III, IV

- (p) Which one among the following pairs is correctly matched? 1
- (i) Gender Division - Division between the rich and poor.
- (ii) Feminist - One who believe only in the right of women.
- (iii) Caste Hierarchy - A social formation in which all castes are group as 'upper' and 'lower' in relation to one another.
- (iv) Patriarchal society - Female dominated society.

Answer the questions in about 20-30 words :

2. Write any two principles of Satyagraha. 2
- 3.a. Write two factors that make the production of solar energy convenient in India. 2
- Or**
- b. State one difference between hydro-electricity and thermal electricity. 2
4. Write any two features of communalism. 2
5. Mention any two features of local self-government. 2
6. Write a short note on any one cash crop of Nagaland. 2
- 7.a. Give two reasons why the French considered it necessary to colonize Indochina. 2
- Or**
- b. The French education policy was unsuccessful in gaining the support of the people of Indochina. Give two reasons in support of the statement. 2
8. Loans obtained from formal sector have more advantages. Mention any two points in support of the statement. 2
- 9.a. The growth of unemployment has become a major issue in India. Suggest any two measures to deal with the problem of unemployment in India. 2
- Or**
- b. State any two initiatives undertaken by the government in healthcare. 2

Answer the questions in about 50-70 words:

- 10.a. What is rainwater harvesting? Mention any three benefits of rainwater harvesting. 1+3=4
- Or**
- b. Mention any four institutional and technical reforms implemented by the Indian Government in agriculture. (4)
- 11.a. Mention any four factors behind the idea of decentralization of power in India. 4
- Or**
- b. Mention any four factors that sustain democracy in India. 4

- 12.a. Religious groups played an important role in developing of anti-colonial feelings in Vietnam. Elucidate.

Or

4

- b. Describe the main features of Cabinet Mission Plan.

13. Read the extract and answer the questions that follows:

Ever since humans appeared on the earth, they have used different means of communication. But, the pace of change, has been rapid in modern times. Long-distance communication is far easier without the physical movement of the communicator or receiver. Personal communications such as postal written communication and mass communication including television, radio, press, films, etc. are the major means of communication in the country. Mass communication provides entertainment and creates awareness among people about various national programmes and policies. It includes radio, television, newspapers, magazines, books and films. All India Radio (Akashvani) broadcasts a variety of programmes in national, regional and local languages for various categories of people, spread over different parts of the country. Doordarshan, the national television channel of India, is one of the largest terrestrial networks in the world. It broadcasts a variety of programmes from entertainment, educational to sports, etc. for people of different age groups. India publishes a large number of newspapers and periodicals annually. They are of different types depending upon their periodicity. Newspapers are published in about 100 languages and dialects. India is the largest producer of feature films in the world. It produces short films; [4] Contact at 9811296736 3 / 3 Section E video feature films and video short films. The Central Board of Film Certification is the authority to certify both Indian and foreign films.

Questions :

- i. How is long distance communication possible without physical movement? **1**
ii. Give one example each of personal and mass communication. $\frac{1}{2} + \frac{1}{2} = 1$
iii. What is the role of mass communication in reaching the mass? **2**

14. Read the source/passage given below and answer the questions that follows :

Tina, who was 12 years old and an uninformed consumer, was asked to go to the market to buy powder milk for her baby brother. Her mother gave her ` 200/- and told her to bring the change from the market.

She approached the shopkeeper and asked for the article she wanted to purchase. The shopkeeper gave her the milk and she paid ` 195/- for it. When she brought it home, her mother checked the content and found out that the milk had been sold beyond its expiry date. This made the mother furious because if the baby had drunk the milk, it would have been hazardous for the baby's health as well as to his life.

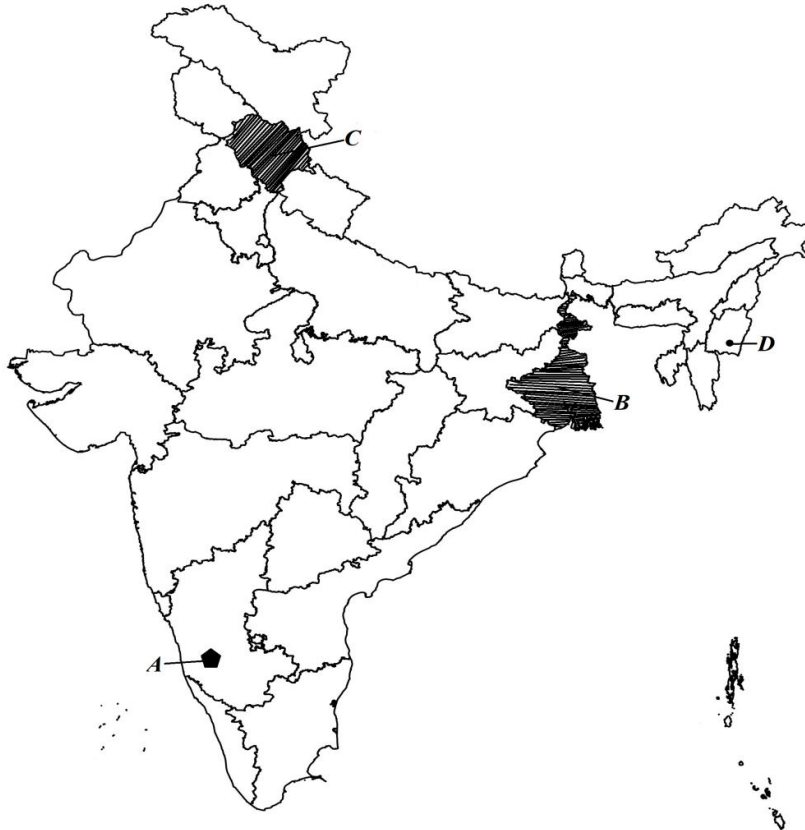
So the mother, instead of taking the law in her own hands, being a well- informed consumer, filed a case against the seller in the consumer court as per the Consumer Protection Act. This was an act passed by the Parliament in 1986 to protect the consumers against exploitation. This Act also reserves the provision for the formation of consumer protection councils both at the centre and in the state levels.

Questions:

- i. How was Tina cheated by the shopkeeper? **1**
ii. What is the Consumer Protection Act? **1**
iii. What steps did Tina's mother take as a well- informed consumer? **2**

15. On the given political map of India, four features A, B, C, D have been indicated. Identify these features with the help of the information mentioned below and write their correct names against their given letters. 4

Loktak thermal power station
Area of Mountain soil
Bhadravati Iron and Steel plant
Major rice producing area



Note : The following questions are for visually impaired candidates only in lieu of Q 15.

- i) What is a resource? (1)
- ii) Where is the largest solar plant located? (1)
- iii) Which country is the largest exporter of tea in the world? (1)
- iv) When was the National Jute Policy framed in India? (1)

Answer the following questions in about 80-100 words :

- 16.a. Culture, art and language played an important role in promoting the nationalist feelings in Europe. Discuss with examples.

Or

- b. Globalization had its effect on a worldwide scale. Discuss its various impacts on world economy.

6

- 17.a. Discuss the political expression of communalism. 6
- Or**
- b. Discuss the various functions performed by the political parties in a democracy.
- 18.a. What is sustainable development? Write down the necessary conditions for sustainable development. 1+5=6
- Or**
- b. Describe the functioning of Self- Help Groups (SHGs) in India. (6)
- 19.a. When was the first transport service in Nagaland inaugurated? Briefly explain the transport system of Nagaland. 1+5=6
- Or**
- b. “Naga Bamboo works are popular all over the world”. Substantiate your answer with six points. (6)