

Round 1

Section 1 – Reading Comprehension

Passage 1

Read the following passage and answer the questions that follow:

Grandfather bought Tutu from a street entertainer for the sum of ten rupees. The man had three monkeys. Tutu was the smallest, but the most mischievous. She was tied up most of the time. The little monkey looked so miserable with a collar and chain that Grandfather decided it would be much happier in our home. Grandfather had a weakness for keeping unusual pets. It was a habit that I, at the age of eight or nine, used to encourage.

Grandmother at first objected to having a monkey in the house. ‘You have enough pets as it is,’ she said, referring to Grandfather’s goat, several white mice, and a small tortoise.

‘But I don’t have any,’ I said.

‘You’re wicked enough for two monkeys. One boy in the house is all I can take.’

‘Ah, but Tutu isn’t a boy,’ said Grandfather triumphantly. ‘This is a little girl monkey!’

Grandmother gave in. She had always wanted a little girl in the house. She believed girls were less troublesome than boys. Tutu was to prove her wrong.

She was a pretty little monkey. Her bright eyes sparkled with mischief beneath deep-set eyebrows. And her teeth, which were a pearly white, were often revealed in a grin that frightened the wits out of Aunt Ruby, whose nerves had already suffered from the presence of Grandfather’s pet python. But this was my grandparents’ house, and aunts and uncles had to put up with our pets.

Tutu’s hands had a dried-up look, as though they had been pickled in the sun for many years. One of the first things I taught her was to shake hands, and this she insisted on doing with all who visited the house. Peppery Major Malik would have to stoop and shake hands with Tutu before he could enter the drawing room, otherwise Tutu would climb onto his shoulder and stay there, roughing up his hair and playing with his moustache.

Uncle Benji couldn't stand any of our pets and took a particular dislike to Tutu, who was always making faces at him. But as Uncle Benji was never in a job for long, and depended on Grandfather's good-natured generosity, he had to shake hands with Tutu, like everyone else.

Tutu's fingers were quick and wicked. And her tail, while adding to her good looks (Grandfather believed a tail would add to anyone's good looks!), also served as a third hand. She could use it to hang from a branch, and it was capable of scooping up any delicacy that might be out of reach of her hands.

Source: Ruskin Bond. (2011). *Monkey Trouble*. *Great Stories for Children*, Rupa)

1) Grandfather brought Tutu home because the monkey was

- a) Happy
- b) Lonely
- c) Unhappy
- d) Cute

2) Read these two statements and choose the correct answer:

- I. Grandfather's pets included mammals.
 - II. Grandfather's pets included reptiles.
- a) Only Statement I is true
 - b) Only Statement II is true
 - c) Cannot say from the passage
 - d) Both Statements are true

3) Who believed that girls caused fewer problems?

- a) Grandfather
- b) Grandmother
- c) Aunt Ruby

d) The Narrator

4) Who taught Tutu to shake hands?

a) Major Malik

b) Uncle Benji

c) Ruby Aunty

d) The Narrator

5) “Grandfather believed a tail would add to anyone’s good looks!” is an example of

a) Solipsism

b) Humour

c) Fantasy

d) Anthropomorphism

Read the following passage and answer the questions that follow:

The idea of the ‘village’ has a distinctive place in the life of the Indian nation. As Gandhi had popularized, the village was the site of the real and authentic India. For genuine independence of the country, the village needed to be recovered and uplifted. From popular Hindi cinema and folk stories on native life to narratives of development around the challenges of India’s poverty and backwardness, the village was at the centre of national self-imaginings. It understandably became an obvious site for a wide range of social science research and explorations of what was changing in the lives of ordinary people and what was not. Political Scientists and journalists documenting the problems and perils of local democracy or the social churning taking place on the ground invariably invoke ‘rural realities’ to sound authentic. The emblematic frail-looking peasant who perpetually lived in scarcity and worked under the hot sun, or a tractor-driving Sardar with his flowing beard in the post-Green Revolution fields of Punjab, were not merely images of rural life. They represented the new nation, signifying its challenges and achievements; its pasts and present. This remained an influential way of envisioning the country until around the 1980s, when its weight and value began to see a steady erosion.

Source: Surinder S Jodhka (2023). *The Indian Village: Rural Lives in the 21st Century*, New Delhi: Aleph Book Company, p. 6)

6) Why was the village at the center of national self-imaginings?

- a) The idea of the village was real and authentic.
- b) Villages needed to be developed.
- c) Villages were deemed backward.
- d) All of the above

7) What did the image of the frail-looking peasant signify?

- a) Legacy of India's history
- b) Green revolution
- c) Future of Indian agriculture
- d) All of the above

8) According to Gandhi, genuine independence can be achieved by:

- a) Going back to the village
- b) Judicious urbanisation
- c) Reforming and developing the village
- d) All of the above

9) Hindi cinema's focus on the village was about:

- a) The ills of the village society
- b) The poverty of villages
- c) Portraying village life
- d) All of the above

10) Green revolution was understood as:

- a) Success in Independent India
- b) Success in Punjab, failure in other states
- c) Aim of Indian agriculture
- d) Can't say from the passage

Passage 3

Read the following passage and answer the questions that follow:

Mr Rajan mentioned a study that established a strong correlation between proficiency in English and both the human capital index and productivity. He then read off the countries at the top of the list – the Netherlands, Austria, Denmark, etc. While he was aware that none of these countries employed English as the medium of instruction and stressed proficiency in the language mainly to enhance the capabilities of their students, he derived the conclusion that favoured his argument.

In fact, this evidence suggests exactly the opposite – that it is indeed possible to teach in languages other than English and yet be highly productive. If English were really related to productivity in the way Mr Rajan inferred, these countries would have substituted it for their own languages from the outset. The conclusion also overlooks the fact that everyone in these countries has access to an acceptable quality of language instruction. It is not that some get the English of Eton and Harrow while others are taught by teachers who don't know the language themselves....

It would be more equitable, and also pedagogically more effective, to be taught in a local language while English is offered as a second language. In such an alternative, each IIT/IIM could teach in its regional language in which case Mr Sundar Pichai would not have gone to IIT Kharagpur but to IIT Madras where he would not have been disadvantaged. At the same time, thousands of students from the catchment areas of these institutions handicapped by being deficient in English would have gained....

The contradiction in the stance on local languages expressed in the interview is full of irony. On one hand is the pride in regional languages which architectural digs have confirmed are thousands of years old and in which amazing work has been accomplished in all fields. On the other there is the acceptance that these languages are not capable of dealing with modern science, technology, and medicine.

Source: Anjum Altaf, "The Language of Instruction and the Narrative of Privilege", <https://anjumaltaf.substack.com/p/the-language-of-instruction-and-the>

11) In the countries listed in the first paragraph, Mr Rajan says that human capital index and productivity:

- a) were the same because they were on the top of the list
- b) increased with the ability in English
- c) were high because English was the medium of instruction
- d) enhanced the capability of their students

12) What is the second paragraph ("In fact, this evidence...") saying about the schools in the countries mentioned in the first paragraph?

- a) They have substituted English instead of their own languages
- b) English is related to their high productivity
- c) Their level of English teaching is fairly high
- d) Some of their teachers themselves don't know the language

13) What does the third paragraph ("It would be more equitable...") state?

- a) Technical education should not be in English
- b) Sundar Pichai should have gone to IIT Madras
- c) Sundar Pichai should not have gone to IIT Kharagpur
- d) Thousands of students live in catchment areas

14) What is the "irony" mentioned in the last paragraph ("The contradiction...")?

- a) There have been architectural digs in India
- b) There are languages that are thousands of years old
- c) Amazing work has been done in these languages
- d) These languages are not deemed fit for today's knowledge

15) The tone of the passage is:

- a) Ironic
- b) Persuasive
- c) Laudatory
- d) Elegiac

Section 2 - General and Quantitative Reasoning Ability

Read the following statements and answer the question that follows.

Statement 1: Covid 19 led to school closures and many schools shifted to online teaching.

Statement 2: During the Covid 19 period, school children reported learning losses.

16) Which of the following conclusions can be drawn from the above two statements?

- (i) Online teaching is not a good alternative to prepare for competitive exams
 - (ii) Online teaching could not produce same learning outcomes as that of offline teaching
- a) Only (i)
 - b) Only (ii)
 - c) Both (i) and (ii)

- d) Neither (i) nor (ii)

17) Statements

- I. The University authorities has instructed all colleges under its jurisdiction to ban the use of chatGPT in educational institutions
- II. Majority of teachers in colleges complained to the university about students using chatGPT for assignments

- a) Statement I is the cause and statement II is its effect.
- b) Statement II is the cause and statement I is its effect.
- c) Both the statements I and II are independent causes.
- d) Both the statements I and II are effects

18) There are seven Health and Wellness Centres (HWCs) in a Block. The pharmacist wishes to stock 1,000 Oral Rehydration Salt (ORS) packets at each of the HWCs. They already have 2000 ORS packets at Block-level, and 100 ORS packets at each of the HWC. How many more packets will be required from the District Drug Store?

- a) 7000
- b) 4300
- c) 5000
- d) 4900

19) During a viral infection, the immune system raises the body temperature as a way to fight the infection.

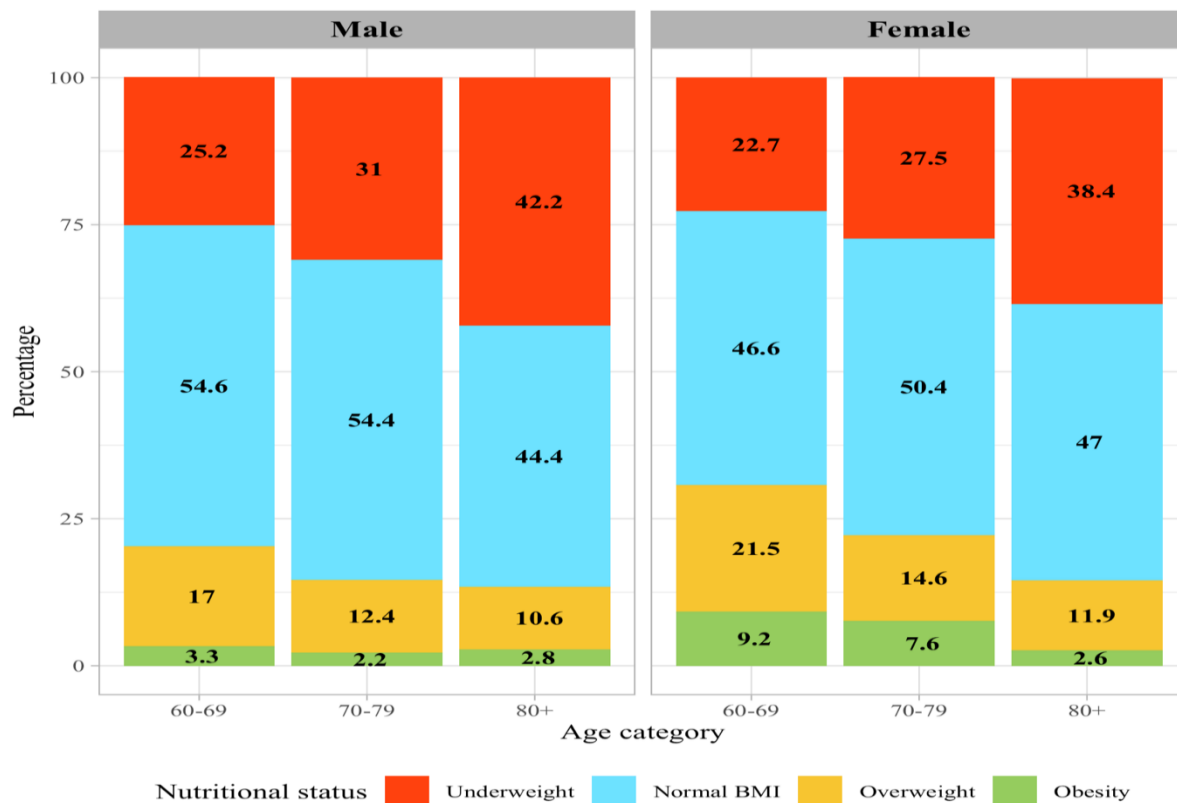
Which of the following conclusions can be drawn from the above statement?

- a) High fever is dangerous for the human body.
- b) Fever-lowering medicines are necessary for treating a viral infection.
- c) One should not take fever lowering medicines during a viral infection.
- d) Fever is a symptom of viral infection and not a cause of it

20) A fruit vendor claims that all his watermelons are red and sweet. He sells all his watermelons at the end of the day. When can we conclude that he is telling the truth?

- a) I buy a watermelon and it was red and sweet.
- b) The fruit-vendor keeps a watermelon on display for tasting and it is red and sweet.
- c) All but one of his customers share that his watermelon was red but not sweet.
- d) All his customers share that their watermelons were red and sweet.

The graph below shows the nutritional status of population aged 60 years and above, by age and sex.



(Source: India Ageing Report 2023)

21) Percentage of Males and Females in the age group 70-79 who are Overweight and Obese

- a) 66.8% and 22.2%
- b) 14.6% and 7.6%

- c) 14.6% and 22.2%
- d) 20.3% and 30.7%

22) Age group where greater proportion of men are Obese when compared to women

- a) 60-69 years
- b) 70-79 years
- c) 80+
- d) None of the above

23) If there are 8700 males and 9800 females between 60-69 years, then how many of them have Normal BMI

- a) 4750 women & 4567 men
- b) 4750 men & 4567 women
- c) 3950 men & 5233 women
- d) 5233 men & 3950 women

The following are accident statistics from a state in central India

Year	Total Accidents	Road Accidents	Industrial Accidents	Rail Accidents	Others
2020	20,000	14,500	3,200	1,800	1,500
2021	21,500	15,200	3,700	1,600	2,000
2022	22,000	16,800	3,300	1,700	1,200

24) In which year did the percentage increase in total accidents from the previous year exceed 5%?

- a) 2020

- b) 2021
- c) 2022
- d) None of the above

25) What was the average number of accidents in the "Others" category over the three years?

- a) 1,566
- b) 1,676
- c) 1,724
- d) 1,426

26) It is predicted that the industrial accidents in 2023 is likely to reduce by 10% from 2022. In that case what would be the approximate number of industrial accidents in 2023?

- a) 3,000
- b) 1,870
- c) 3,630
- d) 2,970

27) In which year did the combined number of rail and other accidents exceed the number of industrial accidents?

- a) 2020
- b) 2021
- c) 2022
- d) All the above

Read the following paragraph and answer the questions that follow.

In India in 2010-11, the Gross Enrolment Ratio (GER) at the primary level was 116 with little gender gap, but at the upper primary level it dropped to 85.5 (boys 87.7 and girls 83.1). In the same year, it dropped even further to 65 (boys 69 and girls 60.8) in Classes IX and X, and to 39.3 (boys 42.2 and girls 36.1) in Classes XI and XII. In the same year, in higher education, the GER was 16%, while the global average was 27%. By 2015, the GER for primary and upper primary were 116 (girls 116.3) and 85.2 (82.9 girls) respectively. For the same year, the GER for Class IX and X was 65.2 (girls 60.9) and that of Class XI and XII was 39.4 (girls 36.2).

(Source: Adapted from Inside Indian Schools: The Enigma of Equity and Quality, Vimala Ramachandran.)

28) Which of the following statements are not correct about GER for 2010-11 and 2015?

- a) GER at primary level remained the same.
- b) GER at upper primary has decreased marginally.
- c) GER at Class IX and X and XI and XII have increased marginally.
- d) GER is increasing from primary to higher secondary levels.

29) As per the data of 2010-11, what is the percentage point drop in GER from upper primary to high school (IX and X) level?

- a) 20.5
- b) 46
- c) 46.2
- d) 16

30) What is the difference between national GER at higher education level from global average in percentage point?

- a) 16

- b) 11
- c) 27
- d) 21.5

Section-3 Social Awareness

31) The McMohan Line is related to the boundary between

- a) India and Pakistan
- b) Indian and China
- c) Uttarakhand and Uttar Pradesh
- d) Scotland and Northern Ireland

32) Regarding the recent expedition to the moon for India, which of the following is true:

- a) Chandrayaan-3 landed near the south pole of the moon
- b) Chandrayaan-2 was the second Indian spacecraft to safely land on the moon
- c) Chandrayaan-3 was the first Indian spacecraft to take Indian astronauts to the moon
- d) Chandrayaan-2 carried a dog named Chanda to the moon and brought it back safely

33) As of October 2023, which country is said to have the highest population in the world

- a) China
- b) India
- c) United States of America
- d) Russia

34) The Supreme Court of India in the case of legalising same-sex marriage did the following:

- a) dismissed the appeal to legalise same-sex marriage
- b) is still reviewing the case and the verdict will be delivered in 2024
- c) has allowed same-sex marriages

d) has asked for a signature campaign for its support

35) Recently, Bihar state declared the findings of the caste census. According to this census,

- a) The general category is more in numbers as compared to OBC, EBC and Scheduled castes.
- b) The general category is less in numbers as compared to OBC, EBC and Scheduled castes.
- c) The general category is equal in numbers as compared to OBC, EBC and Scheduled castes.
- d) Most people identify as casteless.

36) India hosted the G20 summit in 2023. Which among the following countries is going to host the 2024 G20 summit?

- a) United States of America
- b) Israel
- c) Japan
- d) Brazil

37) The Sustainable Development Goals (SDGs), also known as the Global Goals were adopted by

- a) United States of America
- b) United Nations
- c) Bill and Melinda Gates Foundation
- d) Nobel Committee

38) The 'Swadesh Darshan Scheme' is an initiative of which Union Ministry?

- a) Ministry of Home Affairs
- b) Ministry of Culture
- c) Ministry of Tourism

d) Ministry of External Affairs

39) The objective that is not mentioned in the preamble of the Indian constitution

a) Justice

b) Equality

c) Liberty

d) Freedom

40) POCSO Act in India deals with

a) Protection on women from domestic violence

b) Protection of children from sexual offence

c) Protection of students from ragging

d) Protection of Indian citizens from religious discrimination

Section-4 Descriptive Questions

MA in Education - Early Childhood Education (ECE)

Section A : Please select one correct answer for each question.

1. When a 5-year-old can answer and explain the “what if” question, for instance – the child says, “If we cut trees, birds and animals will become homeless.”, she has developed an understanding of-

- a) Comparison
- b) Identification
- c) Cause and effect
- d) Measurement

2. Thinking that emerges from direct interactions with the physical world is referred to as –

- a) Concrete thinking
- b) Higher order thinking
- c) Logical operations
- d) Abstract thinking

3. According to National Education Policy (NEP), 2020 and National Curriculum Framework for the Foundational Stage (NCF-FS, 2023), which of the following statements related to multilingualism in ECE are true.

- i Children should be taught in their mother tongue/home language.
- ii English or any other second language should not be introduced at all.
- iii Listening and speaking opportunities in a second language can be provided.
- iv Children can learn multiple languages in the first 6 to 8 years.

- a) i, ii and iii
- b) i and iii
- c) i , iii and iv
- d) ii and iv

4. What is the main purpose of assessment in early years?

- a) To evaluate children's performance and give grades
- b) To test children and diagnose them as slow learners
- c) To identify children's needs and provide them support
- d) To improve the reading and writing capacities of children

5. As stated in the National Education Policy 2020, the Foundational stage comprises of ages-

- a) 3 years to 6 years
- b) 18 months to 8 years
- c) 3 years to 8 years
- d) 18 months to 10 years

6. Which of the following aspects are not true about child development?

- i Child development begins only at birth
- ii Child development takes place from simple to complex
- iii Children have a passive role in their development
- iv Early experiences play a crucial role in children's later learning

- a) i and ii
- b) iii
- c) i and iii
- d) iv

7. Government scheme that caters to children below 6 years and their mothers is called-

- a) Sarva Shikshya Abhiyan
- b) Samagra Shiksha Scheme
- c) Integrated Child Development Scheme
- d) Rashtriya Bal Swasthya Karyakram

8. A 6-year-old child is struggling with putting blocks together. The teacher uses scaffolding to help her in the process. Of the following, what is the most effective scaffolding process?

- a) Scolds the child for putting the blocks incorrectly
- b) Puts the blocks together for the child
- c) Support children by providing cues and asking questions
- d) Promises rewards if the child puts the block correctly.

9. What is not true about qualities that are important in a preschool teacher?

- a) The teacher knows about the development of children in the different domains.
- b) Teachers should be female as they have the inner instinct to take care of young children.
- c) Teachers should be sensitive to the needs of children.
- d) Teachers should be able to build relationships with the families of children.

10. Developing a self-concept, collaborating with others, and sharing skills falls under _____ development

- a) Physical
- b) Socio- emotional
- c) Cognitive
- d) Language

Section B

1. Answer the question in about 100-150 words.

If you were to plan a curriculum for early childhood, what would be the three main curricular goals?

2. Answer the question in about 100-150 words.

Should children in early years be learning how to read and write? Give reasons to support your answer.

MA in Education -Language

Passage 1:

Read the following passage and answer the questions.

An Excerpt from Premchand's Story 'Selfless Benefactor'

The steps were covered with moss. Suddenly he slipped and fell into the water [of the lake]. Revati shrieked, ran to the spot and began beating her head. In a second a big crowd of men and women gathered there but no one thought of jumping into the water to save the child. Won't their carefully done-up hair become untidy or their freshly washed dhotis get wet? Many of the men harboured these manly thoughts! Ten minutes passed, but no one summoned the courage. The wretched Revati was totally distraught by now. Suddenly, a traveller on a horse appeared there. Seeing the crowd he got off the horse and asked one of the spectators, 'Why is there such a crowd?'

The man answered, 'A boy has drowned.'

'Where?'

'Over there, where the woman is weeping.'

The traveller took off his *mirzai*, tucked in his dhoti and jumped into the water. There was silence all around. People were wondering who this man was. The man dived in and surfaced with the boy's cap. He dived a second time and found his stick. After the third dive, when he came to the surface, the boy was in his arms. The spectators broke out into loud applause. The mother ran and clasped the boy tightly in her arms. In the meantime, several friends of Chintamani arrived at the spot and tried to revive the boy. In half an hour the boy opened his eyes. People breathed a collected sigh of relief.

The doctor remarked, 'If the boy had stayed in the water for even two more minutes, it would have been impossible to revive him.' But when people started looking for the unknown Samaritan, he was nowhere to be seen. Men were sent in all directions, the entire fair was combed, but he could not be found.

Source: Premchand: The Complete Short Stories (M. Asaduddin, Ed.; Vol. 1). Penguin Random House. (2017)

1. "Many of the men harboured these manly thoughts!" The author intends to:

- a) say that the men had manly thoughts
- b) be sarcastic about the behaviour of the men present there
- c) convey that there were many brave people gathered around the lake
- d) say that the men were all dressed in freshly washed dhotis

2. The man dived into the water three times. First he brought the cap; then the stick; and finally the boy. This tells us that:

- a) the author highlights attributes of the character while setting him into action
- b) the author is building suspense
- c) the author is doing both of the above-mentioned
- d) the author is providing necessary details

3. "the entire fair was combed".

Select the alternative which has the same meaning as the underlined idiom in the above sentence.

- a) measured
- b) razed

c) decorated

d) searched

Poem 1:

Read the following poem and answer the questions.

Poems Don't Leave Hope

Kedarnath Singh

(Translated from Hindi by Himanshi Pandey and H S Komalesha)

The wind blows

slowly

and a leaf falls

swish...

to the ground.

A printing poem

splits from

its typewriter and framer,

a good poem

sympathizes with itself

on being good

A great poem

gets bored

within its crystalline dignity 3

And when the entire city sleeps

then

the sadness

filled in these poems

rains on the world,

the entire night

No matter

how bad the weather is

poems don't leave hope

they watch every passer-by,

silently

from an invisible window

and murmur

thank you

thank you

Source: *Hyderabad Literary Festival. (2021, August). HLF Khabar, vol. 1 (no. 2). Retrieved 16 October 2023 from <https://hydlitfest.org/wp-content/uploads/2022/09/HLF-KHABAR-VOL-I-NO-2-August-2021.pdf>*

1. In the first verse of the poem, the poet speaks of “falling leaves” and a poem “splitting from the typewriter”. These two actions have been used:

a) to oppose each other

- b) to establish a cause and effect relationship between them
- c) to make them parallel actions
- d) to simply list the actions one after the other

2. Which of the following is most true?

- a) This poem is about hope and caring.
- b) This poem is about satisfaction.
- c) This poem is about sadness.
- d) This poem is about waiting.

3. The poet thinks of the poem as a person. What kind of person does the poet imagine the poem to be?

- a) talkative
- b) quiet and sensitive
- c) happy-natured
- d) clever and smart

4. The word “crystalline” in the poem means:

- a) brittle
- b) perfect
- c) chemical
- d) fabulous

Passage 2:

Read the following passage and answer the questions.

Understanding Ourselves and the World Around Us

Literature provides two kinds of opportunities to children. First, it gives them an opportunity to connect texts with their lives and to reflect on them. It may get them to think about aspects of their lives they may not have paid attention to or may not have made sense of. So texts that connect with the child's environment could help them reflect on the familiar and gain insights about it.

While engaging with the literary piece, children should be encouraged to bring their experiences, thoughts, ideas, emotions, understanding of human relations, and so on, which are relevant to the text (Rosenblatt, 1995). This way, they can relive the work and begin thinking about and feeling for what they read. Rosenblatt writes that during a creative reading experience, different kinds of responses may emerge simultaneously or over time – emotional responses, formulation of ideas, opinions on the attitudes held by the characters, or the situations addressed by the work. Children need to be able to return to texts they have read. Adults also need to help children develop the ability to reflect on their initial responses and come to deeper and better-formed interpretations of the text.

Second, texts can also open up new worlds beyond children's immediate experiences or concerns. For example, a child from urban India may become aware of life in rural areas or the other way around. Texts can help children broaden and deepen their understanding of the worlds they live in.

Source: Rakshit, S., & Menon, S. (2019). *ELI Practitioner Brief 19: Interpreting and Responding to Literature in Elementary Classrooms: A Teacher Research*. Tata Institute of Social Sciences. http://eli.tiss.edu/wp-content/uploads/2017/08/ELI_Practitioner_Brief_19_Interpreting-and-Responding-to-Literature.pdf

1. What can adults do to help children develop a deeper understanding of a literary text? Select the best option based on your understanding of the passage above.

Adults can:

- a) do a close reading of the text and provide students with an accurate interpretation

- b) make children focus on their readings to assist them when they get stuck with difficult words
- c) help children through their experiences so that they can interpret better
- d) assist children gain access to dictionaries available in the school library so that they find the meanings of difficult words

2. As indicated in the passage above, literature students are expected to be:

- a) submissive and docile
- b) active and engaged
- c) impulsive and anarchic
- d) obtrusive and impatient

While teaching a story from a textbook a teacher reads the story fluently and pronounces words and sentences accurately. When she finds unfamiliar words, she pauses and explains the meaning in familiar terms. Afterwards, she asks students what the writer is trying to say through the story, and the sequence of events.

3. What does the teacher hope to achieve through this classroom process?

- I Students will be able to evaluate whether the characters' actions are morally justified.
- II Students will develop the habit of listening carefully while others read from the book.
- III Students will emotionally respond to the story.
- IV The story will become familiar to students.

The correct answers are:

- a) I and II

b)III and IV

c)I and III

d)II and IV

4. Please respond to the question given below in 75-100 words.

In the passage, you read about a brave person. Write an email to a friend describing an incident in a film that you have seen, where a hero or a heroine shows heroism.

5. Please respond to the question given below in 75-100 words.

As the passage says, some people read books to get information about the world, while others read for personal enrichment. What kind of a reader are you? Write a brief note about your reading habits citing examples from one or two of the books that you have read recently.

first passage (Passage 1),

last passage (Passage 2)

MA in Education

Subject Test: Mathematics

1. Which of the following statements are true?

A.42 can be written as the sum of consecutive odd natural numbers starting from 1.

B.There are exactly 94 non-square numbers between 48^2 and 47^2 .

C.The number 186 is a square number.

D.3 cannot be the unit place of the cube of a natural number.

a) Only A

b) Only B

- c) C and D
- d) B and C

2. You have a card paper of the size 15×15 units. You want to make open boxes by cutting the squares at the corners and then folding the sides. What might be the maximum volume that you can get for your box using the given card paper?

- a) 243 cubic units
- b) 196 cubic units
- c) 242 cubic units
- d) 250 cubic units

3. Which of the following situations represent the division problem $1^3 \div 1^2$ appropriately?

$$5 \div 2$$

A. Ravi and Raju divide $1\frac{3}{4}$ chapatis into two equal halves. What is each one's share?

B. Usually, my cows give 1 whole $\frac{3}{4}$ litres of milk everyday. Today, I have 2 cows and I have double the usual amount of milk. How much milk do I have today?

C. I can paint a small chair in half-an-hour. How many chairs of the same size can I paint in $1\frac{3}{4}$ hours?

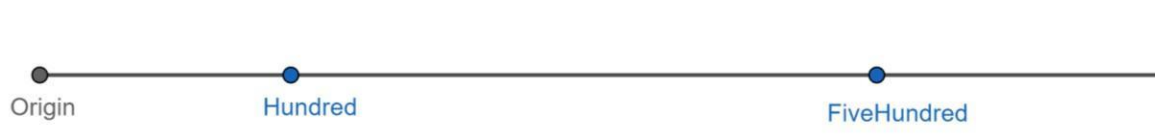
- a) Only A
- b) Only C
- c) A and B
- d) B and C

4. If we want a square to be a special case of parallelogram, then which of the following definitions of parallelogram will be the most suitable?

- a) Parallelogram is a quadrilateral with adjacent sides unequal.
- b) Parallelogram is a quadrilateral with no adjacent angles equal.
- c) Parallelogram is a quadrilateral with a pair of long and short.
- d) Parallelogram is a quadrilateral with opposite sides equal.

5. Which of the following shows the correct position of 100 on the number line:

a)



b)



c)



d)



6. 'The square of any 2-digit number having the unit digit as 5, ends with 25. And the initial part of the resulting square number is the product of the tens digit of the given number with its successor.' Which of the following options is the most appropriate justification for the above statement?

A

$$15^2 = 15 \times 15 = 225 = 1 \times 2 \times 100 + 25$$

$$25^2 = 25 \times 25 = 625 = 2 \times 3 \times 100 + 25$$

$$35^2 = 35 \times 35 = 1225 = 3 \times 4 \times 100 + 25$$

And so on

B.

$$(x5)^2 = x^2 5^2$$

$$= x^2 25$$

$$= x(x+1)25$$

C

$$(10x+5)^2 = (10x)^2 + 2 \times 10x \times 5 + 5^2$$

$$= 100x^2 + 100x + 25$$

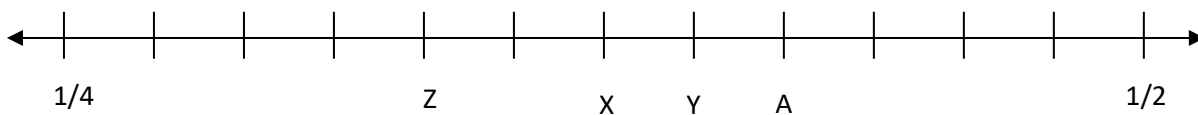
$$= 100x(x+1) + 25$$

- a) Only A
- b) Only B
- c) Only C
- d) A and B

7. The following number line shows the two points $\frac{1}{4}$ and $\frac{1}{2}$. Identify which of the points X, Y, Z or

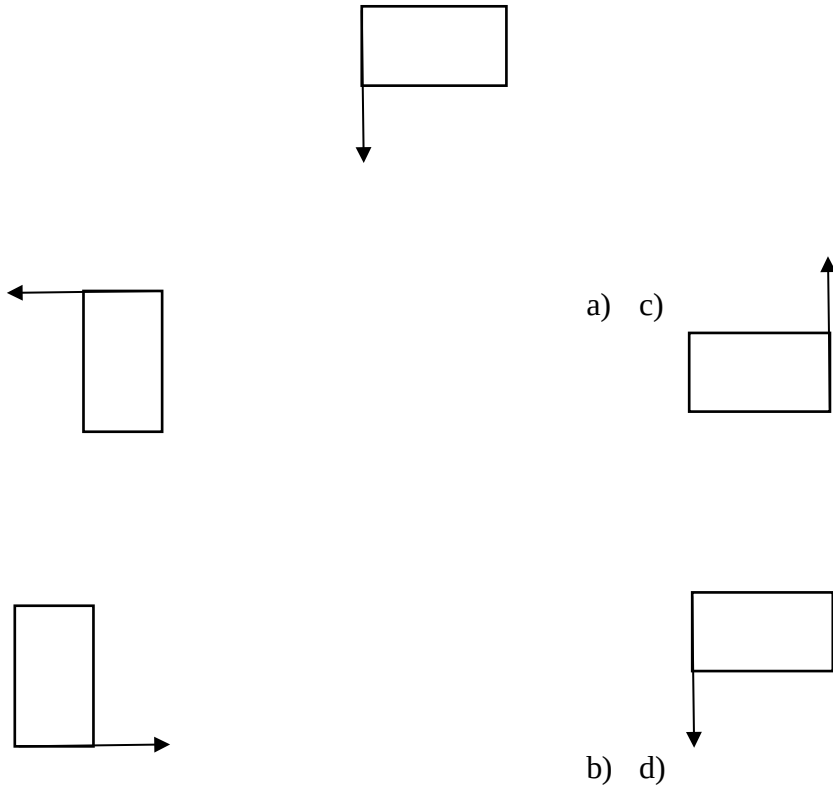
$\frac{4}{4}$ $\frac{2}{2}$

A will be the position of $\frac{1}{3}$.



- a) X
- b) Y
- c) Z
- d) A

8. Which of the following shows the position of the shape after a half-turn or 180° rotation?



9. Points A, B, and C lie on a line and B lies between A and C. If $AB = 10$ cm and $BC = 5.2$ cm, what is the distance between the midpoints of AB and BC?

- a) 7.6 cm
- b) 5.0 cm
- c) 2.6 cm
- d) 2.4 cm

10. Imran went into a candy shop with Rs 20 to spend. There were chewing gums for Rs 4, mini chocolates for Rs 6, Choco-bars for Rs 10 and lollipops for Rs 8. If Imran wants to spend all his money, what are the possibilities he can have among the following:

- A. He can buy at least one of each kind of candy.
- B. He can buy just one kind of sweet.

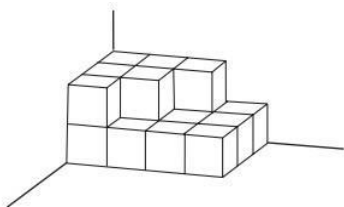
- C. He can buy three different kinds of sweets.
- D. The maximum number of sweets he can buy is six.

- a) Only B
- b) A and B
- c) B and C
- d) C and D

11. Which of the following is the solution set of $x(x-1) < 0$?

- a) All numbers greater than 0 and less than 1.
- b) All numbers less than 0.
- c) All numbers greater than 1.
- d) Only 0 and 1.

12. Anjali stacks these boxes in the corner of the room. All the boxes are the same size. How many boxes does she use?

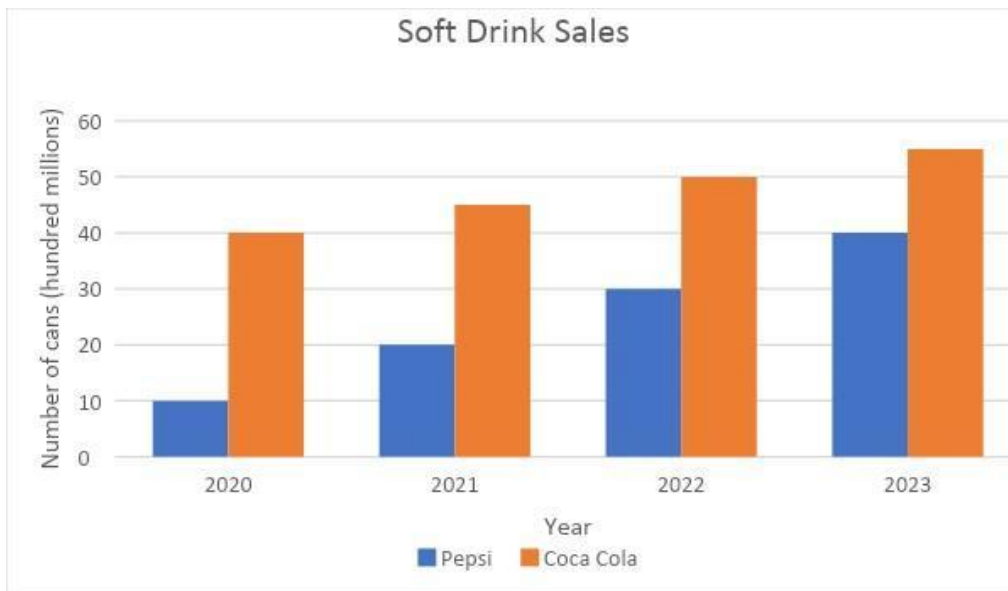


- a) 25
- b) 19
- c) 18
- d) 13

13. Kiran's mother gave her a picture of her father of the size $8\text{ cm} \times 9.6\text{ cm}$ and asked her to get it slightly enlarged. Which of the following might be the size of the enlarged picture?

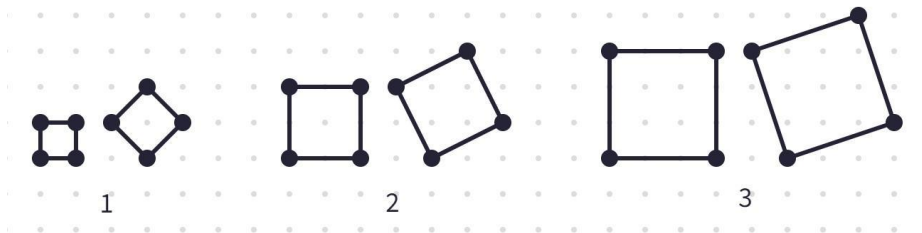
- a) $9\text{ cm} \times 10\text{ cm}$
- b) $10\text{ cm} \times 12\text{ cm}$
- c) $6\text{ cm} \times 8\text{ cm}$
- d) $5\text{ cm} \times 6.6\text{ cm}$

14. The graph shows the sales of Pepsi and Coca Cola over 4 years. If the sales trends continue for the next 10 years, determine the year in which the sales of Pepsi will be the same as the sales of Coca Cola.



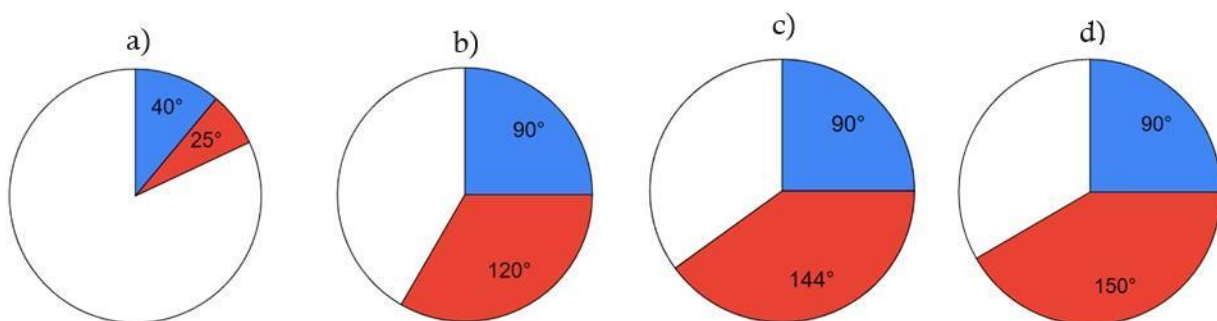
- a) 2025
- b) 2026
- c) 2027
- d) 2028

15. Look at the following pattern of increasing size of squares. What will be the area of the 'tilted' square corresponding to a standard square of side 19 units?



- a) 362 sq units
- b) 361 sq units
- c) 359 sq units
- d) 360 sq units

16. Data collected in a survey shows that 40% of the children are interested in playing outdoors, while 25% like to use electronic games. Which of the following pie chart represents this information?



17. The diagonal of a $4\sqrt{4}$ square is:

- a) a whole number
- b) a natural number
- c) a rational number
- d) an irrational number

18. When the mid-points of the sides of a rectangle are joined, the resulting quadrilateral will have:

- a) Exactly one pair of equal sides
- b) Exactly two pairs of equal sides
- c) No two sides are equal
- d) All sides are equal

19. Sum of two numbers is $\frac{2}{5}$, difference is $\frac{4}{5}$. Which of the following is most appropriate:

- a) The sum of two numbers can't be less than the difference of two numbers.
- b) Both the numbers are positive rational numbers
- c) At least one of the numbers is a negative rational number
- d) Both the numbers are negative rational numbers

20. Given the four digits 3, 5, 7, and 9 which of the following would give the greatest result when the two numbers are multiplied:

- a) 73×95
- b) 75×93
- c) 97×53
- d) 93×57

MA in Education

Subject Test: Science Education

1. The size of an image formed by a plane mirror is,

- a) Less than the size of the object
- b) More than the size of the object
- c) Equal to the size of the object
- d) Not fixed and depends upon the size of the mirror

2. Which of the following is not a unit of energy?

- a) Joule
- b) Watt
- c) Calorie
- d) Kilowatt Hour (KWH)

3. Zinc sulphate is a soluble salt and is prepared by adding sulphuric acid to excess zinc carbonate. Which piece of apparatus would be needed in the preparation of zinc sulphate?

- a) Condensor
- b) Separating Funnel
- c) Evaporating dish
- d) Thermometer

4. The ion of an element has 2 positive charges. The mass number of the atom is 24 and the number of neutrons is 12. What is the number of electrons in the ion?

- a) 12
- b) 11
- c) 9
- d) 10

5. The cell theory which states that all animals and plants are composed of cells was given by

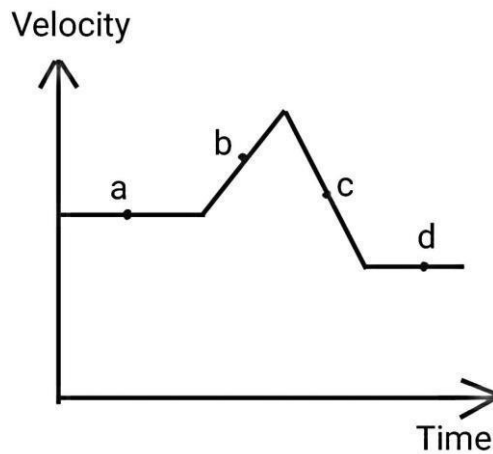
- a) Robert Hooke
- b) Watson & Crick
- c) Schleiden & Schwann
- d) Virchow

6. Name the type of cell depicted below.



- a) Red Blood Cell
- b) White Blood Cell
- c) Skin Cell
- d) Fat Cell

7. The velocity-time graph of a body moving along a straight path is shown below.



At which point/s does the body have zero acceleration?

- a) At point c
- b) At points b and c
- c) Only at point a
- d) At points a and d

8. A tennis ball dropped on a floor from a height H bounces back to a height h ($h < H$). Which one of the following statements is true for the ball?

- a) The total mechanical energy (sum of its kinetic energy and potential energy) of the ball remains the same before and after striking the ground.
- b) The total mechanical energy (sum of its kinetic energy and potential energy) of the ball increases after striking the ground.
- c) The total mechanical energy (sum of its kinetic energy and potential energy) of the ball decreases after striking the ground.
- d) The total mechanical energy (sum of its kinetic energy and potential energy) of the ball becomes zero after striking the ground.

9. Two similar tennis balls are rolled on two different floors X and Y with the same initial speed V . If floor X is of tiles and floor Y is of grass, which of the following would be possibly true?

- a) Ball on floor X will cover more distance than the ball on floor Y before stopping
- b) Ball on floor Y will cover more distance than the ball on floor X before stopping
- c) Ball on floor X will cover the same distance as that of ball on floor Y
- d) Ball on floor X will keep moving unless stopped by applying external force

10. Look at the chemical equations given below,

- A. $\text{Fe}_2\text{O}_3 + 3\text{CO} \rightarrow 2\text{Fe} + 3\text{CO}_2$
- B. $2\text{ZnO} + \text{C} \rightarrow 2\text{Zn} + \text{CO}_2$
- C. $\text{Fe}_2\text{O}_3 + 2\text{Al} \rightarrow \text{Al}_2\text{O}_3 + 2\text{Fe}$
- D. $2\text{CO} + 2\text{NO} \rightarrow 2\text{CO}_2 + \text{N}_2$

11. Identify the oxide which is getting oxidised

- a) Fe_2O_3
- b) CO
- c) ZnO
- d) NO

12. The list below shows the decreasing order of reactivity of some elements,

K Na Ca Mg Zn Fe H

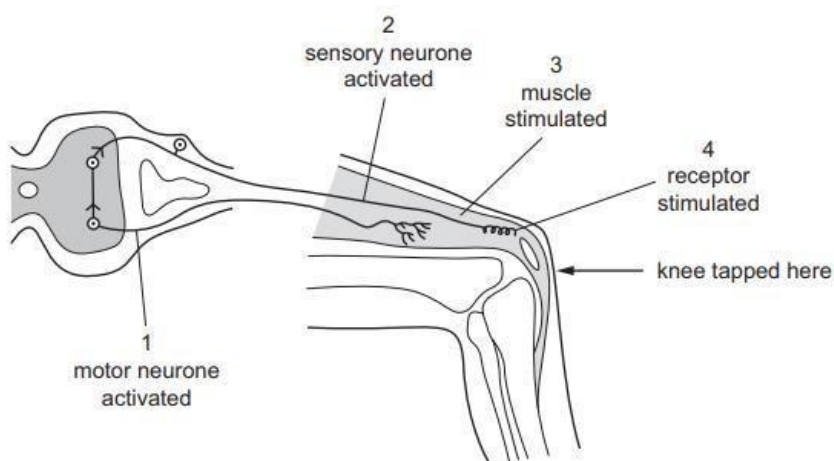
Choose the incorrect statement from the following,

- a) Potassium reacts with water to form hydrogen gas.
- b) Calcium is more reactive than magnesium.
- c) Zinc displaces calcium from its salt solution.
- d) Iron reacts with steam to form hydrogen gas.

13. Which of the following is an example of diffusion?

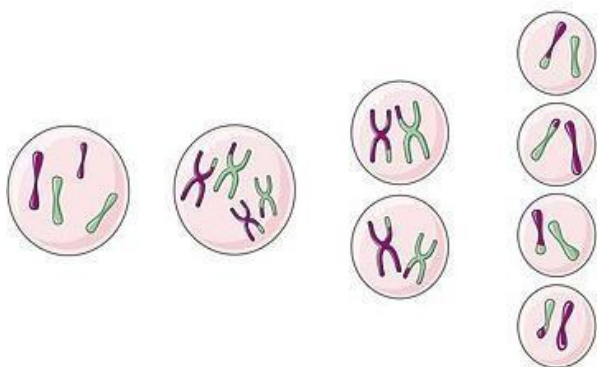
- a) Dust particles being moved by ciliated cells in the trachea
- b) Oxygen molecules moving into red blood cells in the lungs
- c) Pollen grains transferred from anthers to stigmas in the wind
- d) Food transferred from leaves to different plant parts

14. The following diagram shows a simple reflex arc. What would be the correct order of events once the knee is tapped?



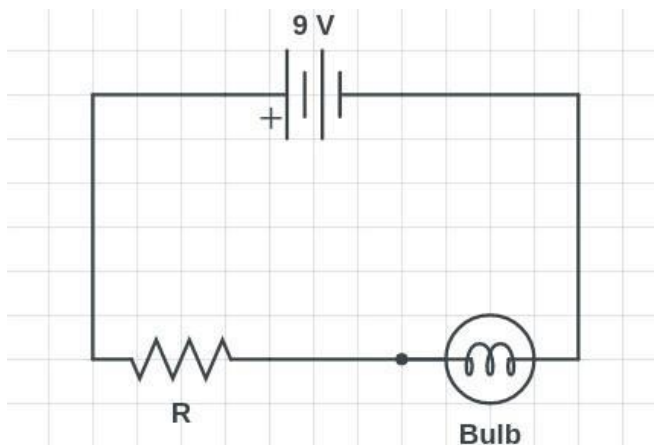
- a) 1 → 2 → 3 → 4
- b) 1 → 4 → 2 → 3
- c) 4 → 2 → 1 → 3
- d) 4 → 3 → 2 → 1

15. The following diagram shows a process of cell division in living organisms. Identify the type of cell division involved and the final chromosome number after cell division.



- a) Two mitotic divisions resulting in 46 chromosomes in each cell
- b) 1st Mitotic division & 2nd meiotic division resulting in 23 chromosomes per cell
- c) 1st Meiotic division & 2nd mitotic division resulting in 23 chromosomes per cell
- d) Both Meiotic divisions result into 46 chromosomes in each cell

16. In the circuit shown below, a filament bulb and a resistance R are connected in series to a 9 V battery. What will happen to the brightness of the bulb if the value of resistance R is increased.



- a) Decreases
- b) Increases
- c) Remains same
- d) Bulb will get fuse on increasing R

17. Which one of the following expressions is not equivalent to force?

- a) Mass x Acceleration
b) Power x Time
c) Pressure x Area
d) Work / Displacement

18. In the outline of the modern periodic table, some elements are marked as numbers.

[illegible]

Which two numbers are **metals** in the same group in the periodic table?

- a) 3 and 5
b) 1 and 2
c) 2 and 4
d) 1 and 7

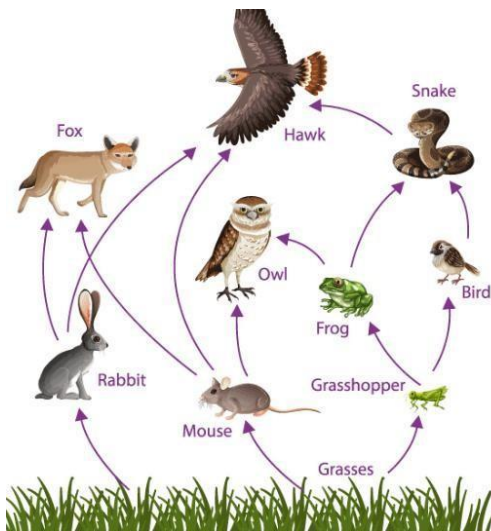
19. The mass of a molecule of oxygen in grams is

- a) $32/6.023 \times 10^{-23}$
b) $16/6.023 \times 10^{-23}$
c) $8/6.023 \times 10^{-23}$
d) $1/6.023 \times 10^{-23}$

20. Blood groups in human beings are genetically determined. It was found that the offspring has a blood group 'O' while one of the parent's blood groups happens to be A and the other parent's blood group is 'B'. What would be the genotype of parents' blood groups?

- a) AA & BB
- b) AO & BO
- c) AB & AA
- d) AB & BB

21. The following diagram depicts a terrestrial food web. Choose the correct statement from the following.



- a) There is one producer and two top carnivores
- b) There are two producers and three top carnivores
- c) There is one producer and three top carnivores
- d) There are two producers and three tertiary consumers

MA in Education

Subject Test: Social Studies

Multiple Choice Questions (MCQs)

Read the passage below, use your understanding of social studies and answer the following questions:

Accommodation of Social Diversity

Do democracies lead to peaceful and harmonious life among citizens? It will be a fair expectation that democracy should produce a harmonious social life. We have seen in the earlier chapters how democracies accommodate various social divisions. We saw in the first chapter how Belgium has successfully negotiated differences among ethnic populations. Democracies usually develop a procedure to conduct their competition. This reduces the possibility of these tensions becoming explosive or violent. No society can fully and permanently resolve conflicts among different groups. But we can certainly learn to respect these differences and we can also evolve mechanisms to negotiate the differences. Democracy is best suited to produce this outcome. Non-democratic regimes often turn a blind eye to or suppress internal social differences. Ability to handle social differences, divisions and conflicts is thus a definite plus point of democratic regimes. But the example of Sri Lanka reminds us that a democracy must fulfil two conditions in order to achieve this outcome:

1. It is necessary to understand that democracy is not simply rule by majority opinion. The majority always needs to work with the minority so that governments function to represent the general view. Majority and minority opinions are not permanent.
2. It is also necessary that rule by majority does not become rule by majority community in terms of religion or race or linguistic group, etc. Rule by majority means that in case of every decision or in case of every election, different persons and groups may and can form a majority. Democracy remains democracy only as long as every citizen has a chance of being in majority at some point of time. If someone is barred from being in majority on the basis of birth, then the democratic rule ceases to be accommodative for that person or group.

Source: Chapter 5: Outcomes of Democracy, Democratic Politics-II, Class X, Page 70-71, NCERT

1. What is the central expectation regarding democracy's impact on social life?
 - a) Democracy should ideally produce a balanced social life.
 - b) Democracy guarantees a harmonious social life.
 - c) Democracy inherently leads to social conflicts.
 - d) Democracy has no impact on social life.

2. Why can no society fully and permanently resolve conflicts among different groups?
 - a) Societies lack the desire to resolve conflicts.
 - b) Conflicts are natural and can change over time.
 - c) Democracies have no mechanisms for conflict resolution.
 - d) Societies lack the capability to negotiate differences.

3. What are the two conditions a democracy must fulfil to manage social differences effectively?
 - a) Rule by the majority community and permanent majority opinions.
 - b) Rule by the majority community and suppression of minority opinions.
 - c) Rule by majority community in terms of religion or race, and permanent majority opinions.
 - d) Rule by majority and ensure that it doesn't become ruled by a majority community.

4. How might the concentration of power in the hands of a few individuals or groups affect the social fabric of a democratic society?
 - a) It promotes equality and social justice.
 - b) It can lead to inequalities and social unrest.
 - c) It has no impact on society.

- d) It strengthens democratic institutions.

5. How does the concept of power and authority in a democratic society relate to issues of social justice and equality?

- a) It is unrelated to social justice and equality.
- b) It can be a tool for achieving social justice and equality.
- c) It hinders social justice and equality.
- d) It has no impact on these issues.

Read the passage below, use your understanding of social studies and answer the following questions:

Indian Agriculture

Today, Indian agriculture finds itself at the crossroads. To make agriculture successful and profitable, proper thrust should be given to the improvement of the condition of marginal and small farmers. The green revolution promised much. But today it's under controversy. It is being alleged that it has caused land degradation due to overuse of chemicals, drying aquifers and vanishing biodiversity. The keyword today is "gene revolution". Which includes genetic engineering. In fact, organic farming is much in vogue today because it is practised without factory made chemicals such as fertilisers and pesticides. Hence, it does not affect the environment in a negative manner. A few economists think that Indian farmers have a bleak future if they continue growing foodgrains on the holdings that grow smaller and smaller as the population rises. India's rural population is about 600 million which depends upon 250 million (approximate) hectares of agricultural land, an average of less than half a hectare per person. Indian farmers should diversify their cropping pattern from cereals to high-value crops. This will increase incomes and reduce environmental degradation simultaneously. Because fruits, medicinal herbs, flowers, vegetables, bio-diesel crops like jatropha and jojoba need much less irrigation than rice or sugarcane. India's diverse climate can be harnessed to grow a wide range of high-value crops.

1. What will be the impact of population growth on agricultural land holdings?
 - a) Land holding size will be smaller.
 - b) Land holding size will be bigger.
 - c) There will be no change.
 - d) More land will be cultivated.

2. Green revolution caused –
 - a) Gene revolution
 - b) Overuse of chemicals
 - c) Organic farming
 - d) Cultivation of high-value crops

3. What will be the implications due to the shift from cultivation of cereals to high-value crops in India?
 - a) The environment will be degraded.
 - b) More irrigation will be needed.
 - c) There will be a genetic revolution.
 - d) Increase in import of more food crops.

4. Moving to organic farming is being popular nowadays because –
 - a) It is cheaper.
 - b) It needs lots of manual labour.
 - c) It doesn't degrade the environment.
 - d) It needs the latest technology.

5. Which statement is not true with reference to 'crop diversification' -

- a) Addition of new crops or cropping systems to agricultural production.
- b) Preference to only 'high-value' crops in the cropping pattern.
- c) It allows farmers to generate a higher level of income.
- d) Diversification helps in reducing the risk because of uncertain weather conditions.

Descriptive Questions

In descriptive response we consider your overall ability to respond to a given issue of importance. Your response will be assessed for the following aspects:

- Your ability to take an informed position.
- Application of social studies concepts and critical thinking.
- Inclusion of diverse perspectives.
- Coherent writing.

Please respond to the question given below in 150 words. Avoid writing in bullet point forms.

1. What could you learn from social studies that may help you in your life? Give examples of some concepts.

Please respond to the question given below in 150 words. Avoid writing in bullet point forms.

2. Can social studies be useful to engineers in their work? Explain your opinion with examples of some concepts.

Round 2

Section 1: Reading Comprehension

Read the following passage and answer the questions that follow.

In the past, agriculture attracted the best economic minds. In a remarkably foresighted essay published in the *Journal of the Indian Economic Society* in 1918, B. R. Ambedkar wrote on the problem of small and fragmented landholdings — how they contributed to inefficiency in farming by rendering impractical “the watching of crops, sinking of wells and the use of labour-saving implements”. Even more farsighted was the solution he gave: Reduce pressure on land by creating employment opportunities in “non-agricultural channels of production”. Thus, “strange though it may seem, industrialisation of India is the soundest remedy for the agricultural problems of India”.

But clarity and present-day relevance apart, Ambedkar’s analysis also revealed deep curiosity and concern over “the most ancient and abiding of all industries, primary or secondary”. The economists who followed him — Babasaheb was, of course, much more than that — showed the same inquisitiveness and rigour while examining growth and imbalances in Indian agriculture.

(From Harish Damodaran (2015). “They don’t go to the Field”. *Indian Express*, 4 November.)

1) Small landholdings, according to B R Ambedkar, made farming:

- a) Labour saving
- b) Impractical, that is not worth pursuing
- c) Inefficient
- d) Fragmented

2) Small holdings in farming:

- a) Can resolve the problem of Indian agriculture
- b) Is a necessary evil
- c) Leads to capitalist agriculture
- d) Makes adoption of technology difficult

3) Pressure on land can be reduced by:

- a) Reducing population
- b) Enlarging landholdings
- c) Generation of non-agricultural employment opportunities
- d) Technology

4) The best way to resolve problems of agriculture is:

- a) Reduce pressure on agricultural land
- b) Industrialization
- c) Encouraging farmers to leave agriculture
- d) None of the above

5) According to the excerpt, economists following Ambedkar showed his curiosity for

- a) Poverty
- b) Caste
- c) Growth and imbalances in agriculture
- d) Agricultural growth

Read the following passage and answer the questions that follow.

The last three years have been marked by two sets of processes, each an extraordinarily powerful attempt to remake the urban landscape of Delhi. Through a series of judicial orders, the Supreme Court of India has initiated the closure of all polluting and non-conforming industries in the city, throwing out of work an estimated two million people employed in and around 98,000 industrial units.

At the same time, the Delhi High Court has ordered the removal and relocation of all jhuggi squatter settlements on public lands, an order that will demolish the homes of more than three million people. In a city of twelve million people, the enormity of these changes is mind-boggling. Both these processes, which were set in motion by the filing of public interest litigation by environmentalists and consumer rights groups, indicate that bourgeois environmentalism has emerged as an organised force in Delhi, and upper class concerns around aesthetics, leisure, safety and health have come to significantly shape the disposition of urban spaces.

The virtual absence of voices of protest can be partly attributed to the weak political organization of workers in Delhi. While cities such as Mumbai and Kolkata, with long histories of unionised labour, have witnessed important working class struggles for housing, which have led to significant public policy responses, Delhi has somehow not undergone any systematic attempt at organizing the poor around issues of shelter and habitat. Perhaps it is this lack of action on the ground that has allowed bourgeois visions of the city to prevail unopposed. But what exactly does this bourgeois vision imagine as its ideal?

For the bourgeois environmentalist, the ugliness of production must be removed from the city. Smokestack industries, effluent-producing manufacturing units and other aesthetically unpleasant sites that make the city a place of work for millions, should be discreetly tucked away out of sight, polluting some remote rural wasteland. So must workers who labour in these industries be banished out of sight. Even people

whose services are indispensable for the affluent to live comfortable lives – domestic workers, vendors and sundry service providers, should live where their homes do not offend the eyes, ears and noses of the well-to-do.

(Excerpt from Amita Baviskar (2002). *The Politics of the City*. Seminar 516).

6) According to the excerpt, the Supreme Court's order to close polluting industries in Delhi resulted in

- a) Loss of jobs for over two million people
- b) New jobs for over two million people.
- c) Migration of new workers to Delhi
- d) Opening of non-polluting industries

7) The author terms the upper class concerns around aesthetics, leisure, safety and health in the city as:

- a) Climate change activism
- b) Working class environmentalism
- c) Feminist environmentalism
- d) Bourgeois environmentalism

8) What reason does the author cite for the relative absence of protest against displacement of the poor in Delhi?

- a) Lack of environmental awareness
- b) Weak political organisation of workers
- c) Poor administration
- d) All of the above

9) According to the excerpt, what is one reason that Mumbai and Kolkata have seen policy impact on urban housing for the poor?

- a) Working class struggles due to unionised labour
- b) More receptive political class
- c) High economic development
- d) Less number of poor

10) What should be removed from the city according to this new kind of 'environmentalist'? a)

Workers

- b) Production units
- c) Automobiles
- d) Both A & B

Read the following passage and answer the questions that follow.

In India's hierarchy of roadways, its millions of pedestrians are reduced to being helplessly pushed around. Despite the reality that they constitute the single largest component of commuters, numbering about 45 million, the country's road networks cater more to the smaller segment of 54lakh users of cars, jeeps or vans. The infrastructure that is in place for road users is skewed against Non-motorised Transport (NMT). Consequently, millions of these pedestrians risk their lives every day as they commute along poorly designed roads that expose them to injuries and fatalities, estimated to have cost the nation more than Rs. two lakh crores in 2020.

India's policy planners, traffic engineers, and urban designers are mostly concerned with ensuring smooth flow of motorised traffic in cities by constructing signal-free road junctions and elevated roads. However, data show that 41 per cent of Indian workers in urban areas walk to work. The proportion of women walking to work is substantially higher than men — 55 per cent vs 28 per cent. Walking trips are higher in rural areas than in urban areas. All public transport trips include walking segments to access and depart from such trips, which means that at least 50 per cent of urban commutes include a walking component.

In addition, school and shopping trips are generally more dependent on walking. If these were to be taken into account, one can safely say that walking constitutes a major mode of mobility in urban India. A 2019-survey in selected cities reflected this, showing that 63 per cent of all trips were walking trips, making pedestrians the single largest category of road users.

Moreover, a large proportion of people who walk to work are ‘captive pedestrians’ as they do not have access to any other mode of travel, primarily because of low income. Therefore, despite hostile road conditions because of motorised traffic and the poor quality of pedestrian paths, the proportion of walk trips remains high in all Indian cities. More women walk to work than men. It is possible that women choose work close to home to enable them to look after their own households. Moreover, men have better access to a vehicle at home — a bicycle, a motorcycle or a car. The proportion of walking trips reduces as the distance to commute increases. The proportion of men travelling to work longer than 5 kms is higher than women. Indian urban areas have evolved having mixed land-use patterns, enabling short commutes to work. Low income households whose members rely on walking as their main mode of transportation are located close to their places of work. These are often in the form of informal residential settlements requiring short commutes.

Specific interventions can be implemented with immediate effect such as restricting free left turns at signalised intersections and speed compliance of motorised vehicles on arterial roads by better enforcement through red light cameras and police monitoring. The installation of speed tables at all intersections on non-arterial roads to enforce the 30km/h speed limit is also an immediately possible intervention. In intersections of small towns, well designed small roundabouts can be constructed to ensure speed compliance and smooth flow of traffic. Similarly, rural road junctions can have a combination of rumble strips and speed humps.

Excerpts from the article: Geetam Tiwari (2022), “Walking in Indian Cities – A Daily Agony for Millions”, 15 June.

Source: <https://www.thehinducentre.com/the-arena/current-issues/walking-in-indian-cities-a-daily-agony-for-millions/article65551959.ece>

11) Which of the following options is the best summary of the given passage?

- a) Low income households rely on walking as their main mode of transportation to work
- b) The infrastructure that is in place for road users is biased against Non-motorised Transport (NMT)
- c) More women walk to work than men
- d) Walking trips are higher in rural areas than in urban areas.

12) Consider the following two statements:

Statement A: The proportion of women walking to work is substantially higher than men — 55 per cent vs 28 per cent.

Statement B: men have better access to a vehicle at home — a bicycle, a motorcycle or a car.

Select the appropriate option from the ones given below:

- a) The two statements are unrelated
- b) Statement B is the only reason for statement A
- c) Statement A is the reason for statement B
- d) Statement B is one of the reasons for statement A

13) According to this passage, which of the following options results in a higher proportion of women walking to work

- a) Men have better access to a vehicle at home — a bicycle, a motorcycle or a car.

- b) It is possible that women chose work close to home to enable them to look after their own households.
- c) Both A and B
- d) The proportion of men travelling to work longer than 5 km is higher than women.

14) A large proportion of people who walk to work are ‘captive pedestrians’. This is because:

- a) All public transport trips include walking segments to access and exit from such trips, which means that at least 50 per cent of urban commutes include a walking component.
- b) They do not have access to any other mode of travel, primarily because of low income.
- c) The proportion of women walking to work is substantially higher than men — 55 per cent vs 28 per cent
- d) Infrastructure that is in place for road users is biased against Non-motorised Transport (NMT)

15) Which of the following **cannot be** inferred from the passage that:

- a) Walking trips are higher in rural areas than in urban areas
- b) Restricting free left turns at signalised intersections and speed compliance of motorised vehicles on arterial will resolve higher fatalities faced by pedestrians crossing the road
- c) 63 percent of all trips were walking trips
- d) Policy planners, traffic engineers, and urban designers are mostly concerned with ensuring smooth flow of motorised traffic

Section 2 - General and Quantitative Reasoning Ability

Read the following paragraph and answer the questions that follow.

Though school dropout rates have improved since 2013-2014, there has been some reversal of gains since COVID-19, especially in the younger classes. In 2019-2020, the total dropout rate in primary school was 1.5%, which fell to 0.8% in 2020-2021, but rose back to 1.5% in 2021-2022. However, this is significantly better than the 4.7% dropout rate in 2013-2014. (Source: The Hindu)

16) Which of the following statements is true, in light of the paragraph above?

- a) The number of children dropping out of school reduced due to Covid
- b) Covid has no impact on number of school going children
- c) During Covid the school dropout rates were poorer than those in 2013-14
- d) The dropout rate improved in 2020-21 over 2019-20.

17) Among which of the following years the primary school dropout rates were the best?

- a) 2013-14
- b) 2019-20
- c) 2020-21
- d) 2021-22

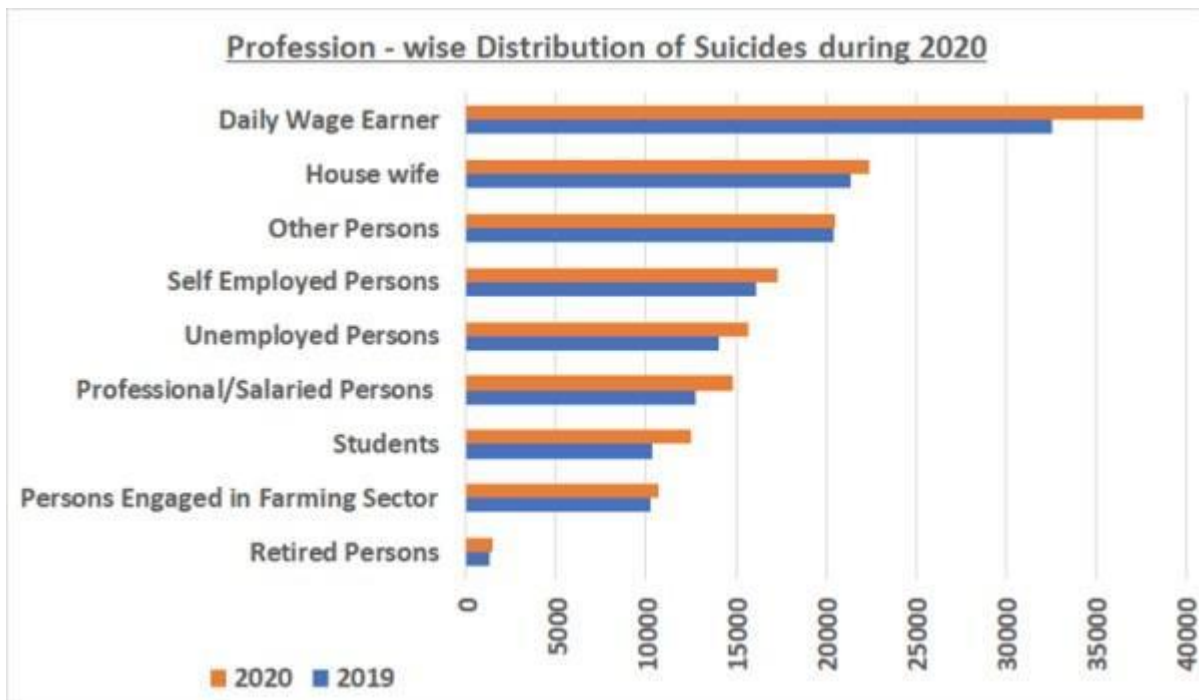
18) In which of the following years the primary school dropout rate was the same as 2021-22?

- a) 2017-18
- b) 2019-20
- c) 2013-14
- d) 2020-21

19) Among which of the following years the primary school dropout rates were worst?

- a) 2013-14
- b) 2019-20
- c) 2020-21
- d) 2021-22

The following graph shows the profession-wise distribution of suicides. Answer the questions that follow.



(Source: Accidental Deaths & Suicides in India Report 2020, National Crime Records Bureau)

20) Which of the following options is the best approximation of the number of self-employed persons who committed suicide in the year 2019?

- a) Between 5000 and 10000
- b) Between 10000 and 15000

- c) Between 15000 and 20000
- d) Between 20000 and 25000

21) Between 2019 and 2020, for which of the following categories of people has the rate of increase in suicides the maximum?

- a) Housewife
- b) Self-employed persons
- c) Persons Engaged in Farming Sector
- d) Students

22) Which of the following statements are true in the context of the graph given above?

- a) Retired persons had a better sense of well-being in 2019 and 2020
- b) In the year 2020, more than 3000 daily wage earners committed suicide compared to 2019
- c) 50 more house wives have committed suicide in the year 2020 than 2019
- d) There is no change in the number of suicides in persons engaged in farming sector

Read the area, production, and yield of major crops cultivated in India and answer the given questions.

Area, production and yield of major Crops

Crops	Area (Lakh hectare)			Production (Million Tonnes)			Yield (kg/hectare)		
	2019-20	2020-21	2021-22*	2019-20	2020-21	2021-22*	2019-20	2020-21	2021-22*
Rice	436.62	457.69	463.79	118.87	124.37	130.29	2722	2717	2809
Wheat	313.57	311.25	304.69	107.86	109.59	106.84	3440	3521	3507
Nutri / Coarse cereals	239.88	241.18	226.52	47.75	51.32	50.90	1991	2128	2247
Pulses	279.87	287.83	310.30	23.03	25.46	27.69	823	885	892
Foodgrains	1269.95	1297.95	1305.3	297.50	310.74	315.72	2343	2394	2419
Oilseeds	271.39	288.33	291.67	33.22	35.95	37.70	1224	1247	1292
Sugarcane	46.03	48.51	51.48	370.50	405.40	431.81	80497	83566	83887
Cotton@	134.77	132.86	119.10	36.07	35.25	31.20	455	451	445
Jute & Mesta#	6.73	6.62	6.86	9.88	9.35	10.32	2641	2542	2709

* 4th advance estimates @ Production in million bales of 170 kg each

Production in million bales of 180 Kg. each.

(Source: Annual Report 2022-23, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Government of India)

23) Choose the two crops for which cultivated area steadily decreased over the period 2019-2022.

- a) Wheat and Coarse cereals
- b) Cotton and Wheat
- c) Cotton and Coarse cereals
- d) Rice and Pulses

24) Choose the crop for which cultivated area in 2021-22 has decreased in comparison to 2019-20 but the total production has increased.

- a) Coarse cereals
- b) Rice

- c) Oilseeds
- d) Cotton

25) What is the difference in yield of rice and wheat in the year 2020-21 when compared to 2019-20?

- a) 92 kg/hectare and -14 kg/hectare
- b) -5 kg/hectare and 81 kg/hectare
- c) 5 kg/hectare and 81 kg/hectare
- d) 87 kg/hectare and 67 kg/hectare

26) What is the percentage decrease in the yield of wheat from 2020-21 to 2021-22?

- a) 0.39%
- b) 3.4%
- c) 0.23%
- d) 4%

The table below shows the works carried out under MNREGA in the central districts of Kerala from its inception and also in the last two years. Answer the questions that follow

Row Labels	Sum of Complete Work in 2022-2023	Sum of Complete Work in 2021-2022	Sum of Completed Work Since Inception
Anganwadi/Other Rural Infrastructure	71	152	413
Bharat Nirman Sewa Kendra	0	0	6
Coastal Areas	0	0	1
Drought Proofing	213	158	2746

Fisheries	0	5	106
Flood Control and Protection	59	110	11787
Land Development	1085	1536	12707
Micro Irrigation Works	496	787	12373
Other Works	7	0	164
Play Ground	0	0	21
Renovation of traditional water bodies	380	622	21661
Rural Connectivity	234	554	3422
Rural Drinking Water	3	6	928
Rural Sanitation	99	63	2690
Water Conservation and Water Harvesting	1402	1996	24115
Works on Individuals Land (Category IV)	4435	7973	60626
Grand Total	8492	13971	153773

27) What is the ratio of Anganwadi / Other rural infrastructure projects completed in the year 2022-23 to the year 2021-22?

- a) 0.46
- b) 0.56
- c) 0.50
- d) 0.23

28) What percentage of the total number of projects in the year 2022-23 was done on Land Development?

- a) 13.75%
- b) 12.77%
- c) 14.03%
- d) 11.90%

29) Which among the following saw the highest increase in the number of projects in the year 2022-23 as compared to 2021-22?

- a) Rural Sanitation
- b) Rural Connectivity
- c) Drought Proofing
- d) Other works

30) Arrange the following works in ascending order of their total number of projects completed since inception of MNREGA.

- A – Works on Individual Land
- B – Rural Sanitation
- C – Renovation of Traditional Water bodies
- D – Land Development

- a) B, D, C, A
- b) A, C, D, B
- c) A, D, C, B
- d) B, C, D, A

Section 3: Social Awareness

31) Recently the Prime Minister of India has called for more inclusive politics for the Pasmanda community. Who are they?

- a) Lower caste Jains
- b) Lower caste Buddhists
- c) Lower caste Sikhs
- d) Lower caste Muslims

32) Five Year Plans were discontinued in 2017, and development plans were taken up by the NITI Ayog. Which was the last Five-Year Plan that was completed in 2017?

- a) 10th Five-Year Plan
- b) 13th Five-Year Plan
- c) 12th Five-Year Plan
- d) 11th Five-Year Plan

33) An important change in the new income tax regime introduced in the recent budget has this feature:

- a) Women do not have to pay income tax any more.
- b) Only salaried individuals need to pay tax
- c) The Maximum tax that can be imposed on any income is Rs. 10 lakhs
- d) Those with income less than Rs. 7 lakhs will not have to pay income tax

34) The violence that happened between Meitei and Kuki-Zo ethnic groups in 2023 happened in

- a) Nagaland
- b) Manipur
- c) Myanmar
- d) Bangladesh

35) Once in a few years, the monsoon season in India is drastically affected by a global climate phenomenon. This phenomenon is called

- a) Aurora Borealis in the North Pole
- b) High tides and low tides
- c) El Nino-Southern Oscillation
- d) Alignment of all the planets

36) Food Fortification is the practice of deliberately increasing the micronutrient content i.e., vitamins and minerals. Do we have fortified foods as part of governmental food security schemes in India?

- a) It used to be there, but has been banned in 2023.
- b) Some food ingredients such as salt have been fortified and distributed in some states since many years
- c) Fortified rice is the first fortified food in India, and this has only been introduced in 2023.
- d) Fortified foods have never been used in India and scientists are still studying the risks of these foods

37) Who is the present Chief Election Commissioner of India?

- a) Rajiv Kumar
- b) T.N. Seshan
- c) V.S. Sampath
- d) Om Prakash

38) The President of India has given assent to the Constitution (106th Amendment) Act 2023, which provides –

- a) 1/4th reservation for women in all service sectors
- b) 1/5th reservation of physically challenged people in all service sectors
- c) 1/3rd reservation for women in Lok Sabha and State Legislative Assembly
- d) 50% reservation for the citizens from marginalized community

39) The Nobel Prize for Economics in 2023 has been awarded to American labour economist Claudia Goldin. Nobel Committee cited her work as important because she

- a) advanced our understanding of women's labour market outcomes
- b) contributed to welfare economics
- c) developed static and dynamic economic theory
- d) integrated insights from psychological research into economic science

40) The G-20 Summit of 2023 was held in –

- a) Jaipur
- b) Hyderabad
- c) Mumbai
- d) New Delhi

MA in Education: Early Childhood Education (ECE)

Multiple Choice Questions (MCQs)

1. Development in childhood is-

- a) Unpredictable with no particular pattern
- b) Predictable with a complex progression
- c) Predictable with a linear progression
- d) Predictable and controlled by the environment alone

2. Children need to learn to count. Which of these strategies should not be used as one of the first steps for making them learn to count.

- a) Count by copying and writing numbers
- b) Count using natural objects
- c) Count while singing number rhymes
- d) Count using daily routine objects

3. Which of the following is not an effective way of assessing children in early years?

- a) Observation and documentation
- b) Pen and paper tests
- c) Portfolios
- d) Development checklist

4. Multilingualism in classrooms is

- a) Children of multiple languages use their language in learning
- b) Children of multiple languages learn a common language such as English

- c) Children are segregated based on their language
- d) Children learn in the language spoken by teacher

5. Which of these is not a service of the Integrated Child Development Services (ICDS) scheme?

- a) Supplementary nutrition
- b) Preschool education/non-formal education
- c) Mid-day meal
- d) Immunization

6. Which of the following is the most effective way to enable Moral development in the early years?

- a) Creating strict rules for children's behavior inside and outside the classroom
- b) Rewarding children for being well mannered
- c) Demonstrating good manners through charts and other material
- d) Creating opportunities for reasoning through discussion

7. A group of children are playing "house house" where each child takes up a different family member's role. What kind of play are these children participating in?

- a) Rough and tumble play
- b) Socio-dramatic play
- c) Manipulative play
- d) Parallel play

8. Which of the following would foster the fine motor skills of a 5-year-old child?

- a) Running from one place to another
- b) Digging into the soil and making things from it
- c) Climbing up the stairs
- d) Repeating poems after the teacher

9. NIPUN Bharat mission stands for _____

- a) Nation's Important Programme for developing Understanding and Numeracy
- b) National Initiative for Proficiency in Reading with Understanding and Numeracy
- c) Naveen Initiative for Poshan and Umeed for Next generation
- d) None of the above

10. A child in early years with developmental delay benefits from

- a) Diagnosis and treatment
- b) Early intervention and support
- c) Segregated learning and assessment
- d) Delaying early childhood education

Descriptive Questions

The below question is mandatory. Answer the questions in about 100-150 words each.

One of the major shifts in Early Childhood Education as mentioned in National Education Policy (NEP) 2020 and National Curriculum Framework for Foundational Stage (NCF FS) 2022 is that learning should shift from rote learning to critical thinking. In what ways do you think this will

impact how children are taught in their early years?

The below question is mandatory. Answer the questions in about 100-150 words each.

1. What are some critical capabilities that teachers working with young children should possess?

MA in Education: Language Education- English

Read the following passage and answer the questions.

"The four walls of the house give a person a sense of security, but they also confine the person within limits.... Schools and colleges do help the mind to develop, but they also frustrate the personality in the name of rules and discipline ... the fact is, my friend, that everything contains the seed of contradiction."

This is not a quotation from some book. I don't have the capacity to read such tomes. This is a fragment of the conversations and discussions that go on in our house day and night. Our house, the wrestling pit of intellectuals. Here they practise high-brow conversation ... over endless cups of coffee ... revolutions take place here, in words. In this house, the rule is all talk and no work. I haven't read it anywhere, but I get a feeling that intellectuals are perhaps never supposed to work. My beloved mother is free after a leisurely, picnic-like three hour job. After some reading and writing, the rest of her time is spent either in conversations and discussions or in lying in bed. She believes that the moment the body becomes inactive, the brain becomes alert and so she keeps her brain alert twelve hours a day. My beloved father is even more advanced than her. If he could help

he would even bathe sitting at his table.

The one topic that gets spun the most here is — modernity. Wait, don't jump to conclusions. This

Modernity has nothing to do with getting one's hair cut short or using knives and forks. It is the

modernity of thought, of the intellectuals. Exactly what it is, even I don't know — but yes, there is a lot of talk about not following conventional paths. Kick the conventional and you are welcome; stick to the conventional and get kicked in the butt.

Though during the discussions all sorts of subjects are mocked, the unquestioned favourite of the crowd is marriage, Marriage, the synonym of ruination. The lightest of conversation soars to intellectual heights — the institution of marriage has become hollow ... the relationship between husband and wife are artificial and unnatural ... and so they go on shredding marriage to bits. During these discussions women are often on one side and men on the other. These discussions reach such a pitch that I sometimes fear that at least a few divorces are in the offing. But no such mishap takes place. They have their respective marriages neatly folded and they sit pretty on top of them. The speed and tone of the discussions continues though.

Source: An excerpt from Mannu Bhandari's story "Trishanku". Translated from Hindi by Madhu

B Joshi. In YATRA-6: Writings from the Indian Subcontinent. Gagan Gill (ed.). HarperCollins,

Delhi: 1996.

1. Which of the following statements describes best the quotation at the beginning of the passage?

- a) It passionately describes our social reality.
- b) It warns us about family and education.
- c) It describes both sides of these institutions.
- d) It provides a philosophical reflection on human nature.

2. The tone of the paragraph beginning with, "This is not a quotation" is:

- a) Angry and complaining

- b) Lighthearted and ironic
- c) Critical and cynical
- d) Contemptuous and dismissive

3. Read the following statements about the last paragraph and answer the question.

Statement I: The discussions are intense.

Statement II: The discussions are inconclusive.

Statement III: The participants are divided along gender lines.

Statement IV: The discussions result in divorces.

Which of the following is true?

- a) Statements I and III are correct.
- b) Statements I and IV are correct.
- c) Statements II and IV are correct.
- d) All the statements are correct.

4. Read the following poem and answer the questions.

Champa Doesn't Know Her Alphabet -Trilochan

(Translated from Hindi by Anamika and Arlene Zide)

Champa doesn't know her alphabet

Whenever I sit down to study, she comes flying in

Quietly she listens to me

She's amazed

How do these black marks send out sounds?

Champa is Sunder's daughter

Sunder is a milkman:

He keeps cows and buffalo.

Champa takes the cattle out to graze in the pasture.

Champa is good

Fidgety and impish too

Sometimes she makes a mess

Sometimes she hides my pen

Somehow when I find it somewhere

And get it back—

All the paper's gone!

Given a hard time again!

Champa says: all day you keep on poking at the paper

is this work really good?

This reduces me to laughter

and Champa falls silent again.

That day Champa came

I said to her: Champa, you too come and read...

This will come to your rescue in troubled times

Gandhi baba says that all must read and write.

Champa said straight-out: I won't! What is this?

You always told me that Gandhi-baba is nice,

how can he then, ask us to read and write?

No reading and writing for me, no way!

I said to Champa: It's good to write

Someday you'll get married.

For a while, your husband will stay with you

And then he'll set off for Calcutta.

Calcutta is very far away—

how will you read his letters?

Champa, it's good to read and write.

Champa said: Look, what a liar you are!

See for yourself, what studying has done to you!

So much learning and such lies!

Me, I'll never get married

and even if I do, I wouldn't ever let my husband go to Calcutta.

So, to hell with Calcutta!

Source: Anamika & Arlene Zide (2008). Trilochan: Dreams Afloat in the Third Eye. *Indian Literature*, September/October, 52 (5 (247)), 12–18. <http://www.jstor.org/stable/23348295>

4.1. What does Champa know about writing?

- a) She knows that making black marks on a page is an enjoyable activity.
- b) She knows that black marks on the page are letters and words.
- c) She knows that sounds are produced from black marks on a page.
- d) She knows how sounds are produced from the black marks on the page.

4.2. Champa has not been portrayed in this poem as:

- a) a curious child
- b) an indifferent child
- c) an argumentative child
- d) an observant child

4.3. Champa tells the poet:

“all day you keep on poking at the paper
is this work really good?”

In these lines, how does Champa perceive the act of writing?

- a) as artistic work
- b) as a physical act
- c) as a mental act
- d) as a physical as well as mental act

Read the following passage and answer the questions.

In our schools, talk is mostly regarded as a negative thing. It is assumed that if someone is talking, he can't be paying attention to the more serious requirements of learning. So when teachers find children talking, their first instinct is to stop them from doing so. Children are permitted to talk only during recess or when the teacher is not saying something important.

This view of talk has led us to ignore the enormous uses of talk as a resource for learning. This is true for all stages of learning, but especially true for learning at the earliest stages. For young children of pre or primary school age, talk is a basic means of learning and consolidating their learning. A school where little children cannot talk with freedom is a useless school. Indeed, teachers who don't let their children talk have no business complaining about lack of funds to buy books or other resources; they are already wasting a highly valuable resource which costs nothing at all.

Of course, children talk about a wide range of aims, and not all of these aims have use for the teacher. For example, talking in order to overcome boredom is not the same thing as talking to draw another person's attention to something one has noticed. The second kind of talk has an important function as a means of consolidating one's learning as in this conversation that two children had in whispers, waiting at the teacher's desk while she was busy filling in her register:

Child 1: 'She's wearing a ring.'

Child 2: 'Didn't you see it earlier?'

Child 1: 'No... Yes, yes, I've seen it before.'

Child 2: 'Oh but it's a different ring.'

Child 1: 'She's bought a new ring. It's smaller.'

Child 2: 'No, it's thinner.'

If you analyse this short conversation between the children, you will soon notice the opportunities

for learning that became available to them because they were talking. If Child-1 had not talked about the ring he saw on the teacher's finger, he wouldn't have been able to remember that she always wore a ring. On the other hand, without this conversation, Child-2 would have missed an opportunity to observe the difference between the old and the new ring, and to understand the subtle difference between 'smaller' and 'thinner'.

In order to become aware of these various functions of talk, we must get into the habit of listening to children's talk. This looks simple, but it is a difficult thing to do because as adults we are used thinking that our job is to tell children what they should do, that it is their job to listen.

Source: An excerpt from Krishna Kumar (1986). *The Child's Language and the Teacher: A Handbook*. United Nations Children's Fund)

5. What is the main argument of the author regarding classroom talk?

- a) Talking should be discouraged during the teacher's lecture.
- b) Talking in the classroom hampers the learning process and disturbs the flow.
- c) Talking leads to better learning at all stages of development and should be allowed.
- d) Talking should be allowed only in the recess as it has positive effects.

6. Choose the most appropriate phrase that describes the author's idea of a typical teacher.

- a) Supportive and encouraging
- b) Slow but knowledgeable.
- c) Concerned about keeping class orderly

d) Makes use of valuable resources

7. What is the use of the children's conversation about their teachers' ring in the passage above?

- a) The conversation shows that the children were not interested in learning.
- b) The conversation shows the interest of children in ornaments.
- c) The conversation gives them an opportunity to gossip.
- d) The conversation gives them an opportunity to infer and discern.

8. Imagine a situation where a teacher is distributing answer sheets from the last exam in a classroom.

Students compare their marks, answers, and hold conversations amongst themselves.

What kind of talk will help children learn further?

- I. Comparing their marks and find out who scored more
- II. discussing alternatives to the answers and to discuss doubts about questions
- III. admiring the student who has got the most marks
- IV. comparing each others answers and discussing them with the teacher

Which of the following options is correct:

- a) Both I and II are correct
- b) Both II and IV are correct
- c) Both I and IV are correct
- d) Both II and III are correct

Descriptive Question

Please respond to the question given below in 75-100 words.

Suppose you are a teacher at a primary school and you saw that two of your students have been talking constantly. How would you respond to them? Would you allow students to continue their talk or engage them in the activity that you are conducting?

Please respond to the question given below in 75-100 words.

How did your teachers respond to students' talk when you were in school? What do you think were their assumptions about talk and the process of teaching-learning?

MA in Education

Subject Test: Mathematics Education

1. A certain sum of money invested at a certain rate becomes thrice the invested amount in 8 years, compounded annually. In how many years will the money become nine times the invested amount?

- a) 15 years
- b) 24 years
- c) 16 years
- d) 18 years

2. If the HCF of 39 and 91 is expressible in the form $91 - 39m$, then the value of m is-

- a) 4

b) 2

c) 1

d) 3

3. If a kite is defined as a 'quadrilateral with at least two pairs of equal adjacent sides', then which of the following considered a kite?

a) Parallelogram

b) Rhombus

c) Trapezium

d) Rectangle

4. On a public bus in Mumbai that starts from the airport and has two stops, the ticket to Bandra is Rs 10, and the ticket to Andheri is Rs 20. The total collection from one ride was Rs 390 from 30 passengers. How many of them are going to Bandra?

a) 10

b) 20

c) 21

d) 42

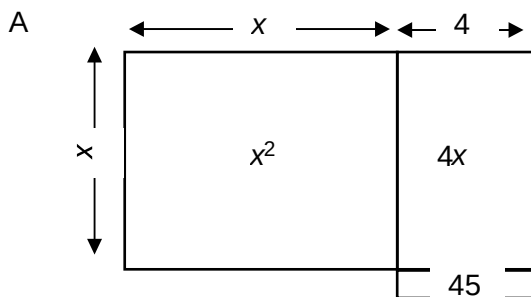
5. After 20 years, Swami will be thrice as old as he is now. What is his present age?

a) 5

b) 7

- c) 8
d) 10

6. 'Multiply two natural numbers, one of which is 4 more than the other. Add 4 to it.' Which of the following options represent the most appropriate generalization from the above statement?



B

Let us take numbers which are 4 apart, then
 $7 \times 11 + 4 = 77 + 4 = 81$
 $8 \times 12 + 4 = 96 + 4 = 100$
 $12 \times 16 + 4 = 192 + 4 = 196$
 These numbers are square numbers

C

$$y(y+4)+4 = y^2+4y+4$$

$$= (y+2)^2$$

Such a number is the square of two more than the smaller number

D

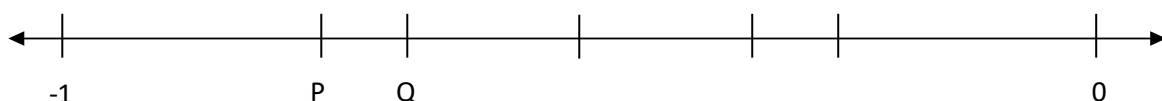
$$y(y+4)+4 = (y)^2+4y+4$$

$$= y(y+4)+4$$

y^2 is a square number and 4 is also a square number, so the number is a square number.

- a) Only A
b) Only C
c) B and D
d) A and C

7. Identify P and Q, and decide which of the following two fractions will lie between P and Q.



- a) $-\frac{7}{12}$, $-\frac{16}{24}$
b) $-\frac{10}{12}$, $-\frac{21}{24}$

c) $-\frac{7}{12}$, $-\frac{10}{12}$

d) $-\frac{17}{24}$, $-\frac{26}{36}$

8. A ladder is placed on the ground in such a way that it touches a vertical wall at a height of 63 feet. If the horizontal distance between the ladder and the wall is a natural number, what might be the length of this ladder?

a) 68 feet

b) 65 feet

c) 66 feet

d) 64 feet

9. The following is part of a 5×5 square table-cloth. Identify which of the options showing the remaining part of the table-cloth will make the table-cloth with exactly two lines of symmetry.



10. The Grill Burger Company owns 5 restaurants. The number of staff members employed in its 5 restaurants are: 12, 19, 21, 18, and 30 people. If the restaurant with 30 staff members increased its number of staff members to 50, how would this affect the median and the mean?

- a) The mean would increase, the median would not change
- b) Neither mean nor median would change
- c) The median would increase, the mean would not change
- d) Both mean and media would increase

11. Anjali has some packages where each package contains two identical unit cubes. She knows that she can fit three packages along the height of the box (Figure 11(a)), three packages along the width of the box (Figure 11(b)) and five packages along the length of the box (Figure 11(c)). How many such packages can completely fill the rectangular box?

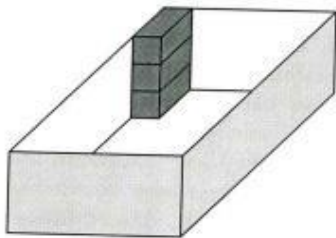


Figure11(a)

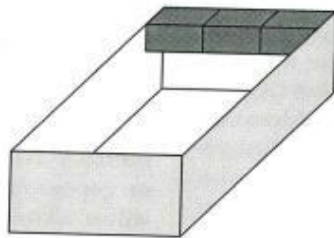


Figure 11(b)

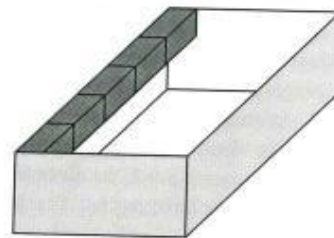


Figure 11(c)

- a) 45
- b) 90
- c) 180
- d) 120

12. In geometry, a diagonal is a line segment joining any two non-adjacent vertices. Which of the following correctly represents the number of diagonals of a pentagon, hexagon and a 20- sided polygon, respectively?

- a) 5, 9 and 170
- b) 3, 4 and 18
- c) 5, 10 and 150
- d) 8, 12 and 20

13. Which of the following statements are true about a right-angled triangle:

- a) The area of the square drawn on the hypotenuse of a right-angled triangle is equal to the sum of the areas of the squares drawn on the other two sides of the triangle
- b) The area of the semicircle drawn on the hypotenuse of a right-angled triangle is equal to the sum of the areas of the semicircles drawn on the other two sides of the triangle
- c) The area of the equilateral triangle drawn on the hypotenuse of a right-angled triangle is equal to the sum of the areas of the equilateral triangle drawn on the other two sides of the triangle
- d) All of the above

14. Which of the following number sentences is true?

- a) $\frac{3}{10}$ of 50 = 50% of 3
- b) 3% of 50 = 6% of 100
- c) $(119)^3 = 1003 + 193$
- d) $(254)^7 = (257)^4$

15. Choose the incorrect statement:

- a) A square is a special case of rhombus

- b) The larger side of a triangle can be larger than the sum of the other two sides of the triangle
- c) The ratio of circumference of circle to its diameter is π .
- d) If we fix the length of three sides of a triangle then only one case of triangle is possible

16. A pentagon has angles 150, 80, 120, 70 degrees respectively. What is the measure of the one missing angle?

- a) 90
- b) 100
- c) 120
- d) 150

17. Two rectangles have the same breadth. One of the rectangles' length is double its breadth and the other one's length is triple its breadth. What is the ratio of perimeters of the two rectangles?

- a) 1:1
- b) 2:3
- c) 3:4
- d) 4:9

18. Sum of two numbers is $\frac{2}{7}$ and difference is $\frac{4}{7}$. Which of the following statements are the most appropriate:

- I. One of the numbers must be smaller than $\frac{2}{7}$
- II. One of them must be greater than $\frac{2}{7}$
- III. One of them must be greater than $\frac{4}{7}$

IV. Both of them must be greater than $\frac{2}{7}$

- a) Only I
- b) I and II
- c) I, II and III
- d) All of the above

19. Which of the following statements is true?

- a) Square of an irrational number is always an irrational number
- b) Product of two irrational numbers can be a rational number
- c) Difference of two irrational numbers is always an irrational number
- d) Quotient of two rational numbers can be an irrational number

20. The mean, median and mode of the scores attained by a class are 35, 36, 37 respectively. What score shall we select as the cut-off so that we get maximum students passing the exam?

- a) 35
 - b) 36
 - c) 37
 - d) None of the above
-

Round 3

Section 1: Reading Comprehension

Read the following passage and answer the questions that follow.

Passage 1

Maintaining good health doesn't happen by accident. It requires work, smart lifestyle choices, and the occasional checkup and test.

A healthy diet is rich in fiber, whole grains, fresh fruits and vegetables, “good” or unsaturated fats, and omega-3 fatty acids. These dietary components turn down inflammation, which can damage tissue, joints, artery walls, and organs. Going easy on processed foods is another element of healthy eating. Sweets, foods made with highly refined grains, and sugar-sweetened beverages can cause spikes in blood sugar that can lead to early hunger. High blood sugar is linked to the development of diabetes, obesity, heart disease, and even dementia.

The Mediterranean diet meets all of the criteria for good health, and there is convincing evidence that it is effective at warding off heart attack, stroke, and premature death. The diet is rich in olive oil, fruits, vegetables, nuts and fish; low in red meats or processed meats; and includes a moderate amount of cheese and wine.

Physical activity is also necessary for good health. It can greatly reduce your risk of heart

disease, stroke, type 2 diabetes, breast and colon cancer, depression, and falls. Physical activity improves sleep, endurance, and even sex. Aim for 150 minutes of moderate-intensity exercise every week, such as brisk walking. Strength training, important for balance, bone health, controlling blood sugar, and mobility, is recommended 2-3 times per week.

Finding ways to reduce stress is another strategy that can help you stay healthy, given the connection between stress and a variety of disorders. There are many ways to bust stress. Try, meditation, mindfulness, yoga, playing on weekends, and taking vacations.

Finally, establish a good relationship with a primary care physician. If something happens to your health, a physician you know — and who knows you — is in the best position to help. He or she will also recommend tests to check for hidden cancer or other conditions.

Source: <https://www.health.harvard.edu/topics/staying-healthy>

1. Which of the diets includes a variety of fruits, vegetables, nuts, and fish?

- a) Omnivorous
- b) Mediterranean
- c) Vegetarian
- d) None of the above

2. What are the aspects we should work upon for a healthy life?

- a) Diet, 150 min walk, strength training and stress
- b) Diet, relationship with primary care physician, regular tests and exercise.
- c) Diet, exercise, managing stress and check ups
- d) Diet, maintaining weight and mindfulness

3. 'Maintaining good health doesn't happen by accident'. What does this sentence mean?

- a) Maintaining good health is similar to avoiding accidents.
- b) Maintaining good health is not a matter of chance.
- c) Maintaining good health is not possible in cases of accidents.
- d) Maintaining good health is not a matter of choice.

4. What term in the above passage best describes a state of mental concentration or awareness?

- a) Negligence
- b) Mindfulness
- c) Distraction
- d) Absent-mindedness

5. What is the overarching theme of the passage regarding maintaining good health?

- a) Diet and exercise, both are equally important

- b) Green vegetables are good for health
- c) We should regularly go for health check-ups
- d) Genetics determines health outcomes

Read the following passage and answer the questions that follow.

Passage 2

Schools and school systems are complex organizations whose work is crucial for social, economic and cultural reasons. Learning outcomes in school systems also contribute to the personal growth and well-being of learners. Yet goals of schooling are often unclear or under-specified, and outcomes are often difficult to measure. Their social and economic function is widely agreed to be critical but education is often starved of resources. In countries like India schools are parts of large administrative structures that are hierarchical and centralized. They function in extremely complex environments with tremendous cultural and socio-economic diversity. The combination of complexity and social importance has led to much concern about the effectiveness of schools and education systems. The Indian education system is widely accepted to be of poor quality, both of outcomes and processes. The large public education system is a key piece in this story of deficiency. What would it take to improve the performance of schools? More effective teaching and learning is an obvious answer. Better curricula would be part of it too. It is in this context that many commentators argue for the importance of better management and leadership of schools. They contend that complex organizations need to be managed well. And good leadership is an integral part of good management. It is easy to see that the above perspective naturally leads to arguments that call for a focus on improving leadership in school systems.

Let us visit “Edutopia”. This is, for the moment, an imagined society. Leadership here is located in the culture of the schools itself. Such a culture facilitates and encourages initiative, creative thinking and the assuming of responsibility at all levels of the schools and school system. The members of the system are encouraged to envision and “re-vision” its goals and devise creative approaches to achieving them. The environment in which such organizations function is diverse, complex and uneven. The work of the schools

in Edutopia is to facilitate learning that is appropriate to the learners' needs and interests. Every teacher is a leader in this sense.

Source: Adapted from Venu, N. (2011, March). Schools And Leadership – A Critical Look. Learning Curve, XVI, 24-29.

6. What are the challenges facing school education?

- a) Lack of resources
- b) Unclear learning outcomes
- c) Complexity of the system
- d) All the above

7. According to this passage, what would help to improve the school system?

- a) Improvement in teaching learning process and curricula
- b) More funds
- c) Effective teacher development process
- d) Regular monitoring by management

8. What is the main point of this passage?

- a) Monitoring is important for managing large systems
- b) Every member of the system cannot be a leader.
- c) Edutopia will remain an imaginary society
- d) School culture should promote leadership

9. In Edutopia, what do members do?

- a) Members take turns to become Principal
- b) Members think creatively to respond to the needs of the system
- c) Members wait for the orders from their leader.
- d) Members think that they should work as per their job-chart.

10. ‘....The large public education system is a key piece in this story of deficiency’. What does the author mean by this sentence?

- a) The large public education system should be replaced by smaller ones.
- b) The large public education system is a challenge to be focused upon.
- c) The large public education system is the only reason for the failure of our education system.
- d) The large public education system is a part of the imaginary story.

Read the following passage and answer the questions that follow.

Passage 3

Elderly women in India report higher life satisfaction than elderly men, found an analysis of the Longitudinal Ageing Survey of India data presented in the *World Happiness Report 2024*. Of them, those who are currently married were happier than those who were not married — including those who were divorced, widowed and never married — as were those who reported being socially active, found the report.

India was ranked 126 of 143 countries by happiness in 2024, unchanged from 2023, and an improvement over the 2022 ranking (136). Finland, Denmark, Iceland, Sweden and Israel were the happiest countries in the world, whereas Afghanistan was the least happy.

These ranks were based on the respondents’ response to a single question: “*Please imagine a ladder, with steps numbered from 0 at the bottom to 10 at the top. The top of the ladder represents the best possible life*

for you and the bottom of the ladder represents the worst possible life for you. On which step of the ladder would you say you personally feel you stand at this time?" Observed data on gross domestic product, social support, healthy life expectancy, etc. were then used to explain variation of life satisfaction across countries.

Worldwide, those born before 1965 were happier than those born after 1980, found the report.

There is a great variety among countries in the relative happiness of the younger, older, and in-between populations, said John F. Helliwell, Emeritus Professor of Economics at the Vancouver School of Economics, University of British Columbia, and a founding editor of the *World Happiness Report*. "Hence the global happiness rankings are quite different for the young and the old, to an extent that has changed a lot over the last dozen years," he explained. The report has a separate chapter explaining the factors contributing to the happiness levels of elderly Indians (60 and above).

Source: Excerpts from Nushaiba Iqbal. (2024). "Older Indian Women Happier Than the Men, New Report Says." Indiaspend. Available at: <https://www.indiaspend.com/development/older-indian-women-happier-than-the-men-new-report-says-900829>

11. What was India's rank in happiness in 2023?

- a) 126
- b) 143
- c) 136
- d) None of the above

12. Elderly women are happier than

- a) Boys
- b) Widows

c) Divorced

d) Men

13. According to the report, the least happy country is

a) Afghanistan

b) India

c) Sweden

d) Finland

14. What does the World Happiness Report really measure?

a) Social support

b) Satisfaction with life

c) Gross Domestic Product

d) Healthy life expectancy

15. What could be the title of this passage?

a) Statistical report

b) Newspapers article

c) Happiness comparison

d) Data on people

Section 2 - General and Quantitative Reasoning Ability

The following table gives the number of deaths officially reported in Bhopal during the first and second waves of COVID-19 pandemic as per their status of exposure to the tragic Bhopal Gas Tragedy of 1984. Answer the questions (Question No. 16, 17, 18 and 19) that follow.

	Gas-exposed	Gas-unexposed
Wave-1 (April 2020 to February 2021)	300	351
Wave-2 (March 2021 to July 2021)	153	375

Source (adapted from): Dhingra, R., Sarangi, S., Chatterjee, P., Gun, A., Sarkar, S., 2024. COVID-19 mortality in 1984 Bhopal gas tragedy survivors: implications for chemically exposed populations. Transactions of The Royal Society of Tropical Medicine and Hygiene traef010. <https://doi.org/10.1093/trstmh/traef010>

16. What is the total number of deaths among gas-exposed and gas-unexposed people in Bhopal during the first and second waves of COVID-19 pandemic (April 2020 to July 2021)?

- a) 300 and 153, respectively
- b) 651 and 528, respectively
- c) 453 and 726, respectively
- d) 351 and 375, respectively

17. The above deaths happened over a period of 16 months of COVID-19 pandemic (from April 2020 to July 2021). Suppose that equal number of deaths occurred in each of these 16 months. Now, at this rate, how many deaths would have occurred in a year (i.e. in a 12-month period instead of a 16-month period) among the gas-exposed and gas-unexposed group?

- a) 340 and 545, respectively
- b) 604 and 968, respectively
- c) 300 and 351, respectively
- d) 488 and 396, respectively

18. The population of gas-exposed people in Bhopal is around 4 lakhs. How many gas-exposed people died during COVID-19 in both the waves of the pandemic?

- a) 1.13 per lakh
- b) 1130 per lakh
- c) 113 per lakh
- d) 11.3 per lakh

19. The estimated total gas unexposed population of Bhopal is around 21 lakhs. How many gas-unexposed people died during the first wave of the COVID-19 pandemic?

- a) 16.7 per lakh
- b) 17.8 per lakh
- c) 167 per lakh
- d) 178 per lakh

20. **Statements:** All fruits are green in colour. All mangoes are fruits.

Given the above two statements, which of the conclusions follow.

Conclusions:

- I. Some mangoes are not green in colour.
- II. All fruits are mangoes.

- a) Only conclusion I follows
- b) Only conclusion II follows
- c) Neither I nor II follows
- d) Both I and II follow

21. If P is the sister of Q; Q is the brother of R; and R is the mother of S, how S is related to P?

- a) Brother
- b) Sister
- c) Nephew
- d) Cannot be determined

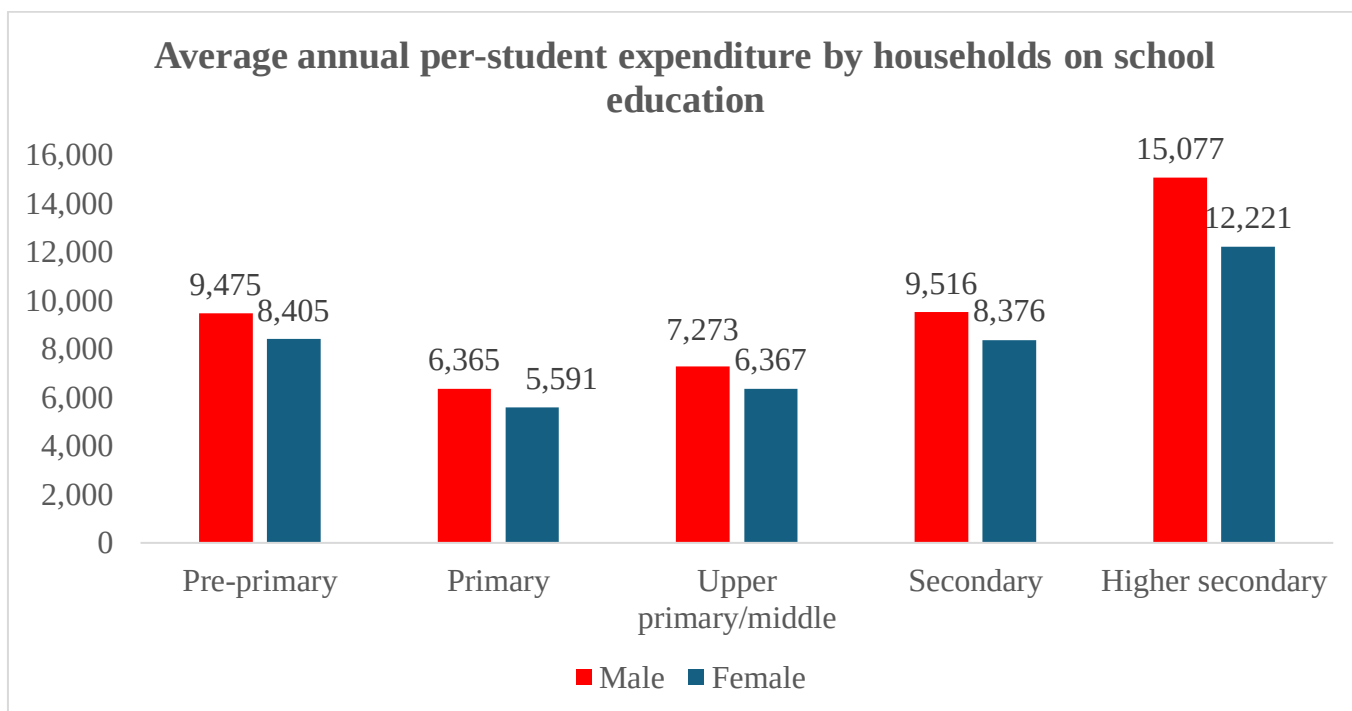
22. Five students in a class A, B, C, D and E have different heights. The height of A is less than only two students. The height of B is more than only one student. The height of C is smaller than D and height of D is smaller than E. How many students are smaller than D?

- a) One
- b) Two
- c) Three
- d) Four

23. Fahad starts walking from his home. He walks 5 km towards East and then takes a right and walks for 8 km. Then he again turns right and walks for 5 km. What is Fahad's position with respect to his starting point?

- a) 5 km North
- b) 5 km South
- c) 8 km East
- d) 8 km South

The following graph shows the average expenditure incurred by a family on child's school education. Answer the following questions (Question No. 24, 25, 26, 27) based on the graph.



Source: National Sample Survey Office (NSSO), 75th round, “Household Social Consumption: Education”, 2017-18

24. The gap between average expenditure on education between males and females is highest in

- a. Higher secondary
- b. Secondary
- c. Primary
- d. Upper primary/ middle

25. If a household has a male child studying in pre-primary school and a girl child studying in higher secondary. Then on an average how much do they spend on the education of their children

- a. 20,668
- b. 23,482
- c. 21,696

d. 18,586

26. How does the average annual per-child expenditure by households on school education for males compares to females

- a. Households spend the same on males and females.
- b. Households spend more on males.
- c. Households spend more on females.
- d. Households spend more on females when compared to males for higher education.

27. Which of the following statement is true-

- I. Expenditure by households for Pre-primary education is more when compared to Primary education.
- II. The average expenditure by households for Higher secondary education is four times that of what households spend for primary education.

- a. Only I is true.
- b. Only II is true.
- c. Both I and II are true.
- d. Both I and II are false.

Following is an excerpt from the National Family Health Survey (NFHS-5) report on Madhya Pradesh. Based on the given information, answer the following questions (Question No. 28, 29, 30).

Safe sanitation is one of the foundations of a healthy, comfortable, and dignified life. Households without proper sanitation facilities have a greater risk of diseases like diarrhoea, dysentery, and typhoid than households with improved sanitation facilities that are not shared with other households.

Just over one-fourth (26%) of all households (33% in rural areas and 7% in urban areas) do not use any sanitation facility; they use open spaces or fields. In Madhya Pradesh, 76 percent of households have access to a toilet facility, with a much higher accessibility in urban areas (94%) than in rural areas (70%). Access to a toilet facility ranges from 64 percent among scheduled tribe households to 88 percent among households which are not scheduled caste, scheduled tribe, or other backward class households. Access to a toilet facility varies widely across the districts, ranging from 52 percent in Damoh district (much lower (44%) in the rural areas) to 98 percent in Indore district. At least 99 percent of urban households have access to a toilet facility in ten districts (Indore, Betul, Ratlam, Alirajpur, Narsimhapur, Khandwa (East Nimar), Bhopal, Dewas, Jhabua and Mandla).

28. Percentage of Indian households that use any kind of toilet facility-

- a. 26
- b. 76
- c. 24
- d. 74

29. Which of the following statements is true?

Statement 1: Greater percentage of households in urban areas don't use any sanitation facility when compared to rural areas.

Statement 2: 88% of households belonging to Scheduled Caste have access to toilet facility.

- a. Only Statement 1 is true.
- b. Only Statement 2 is true.
- c. Both Statement 1 and 2 are true.
- d. Both Statement 1 and 2 are false.

30. District where less than 90 percent of urban households have access to a toilet facility-

- a. Betul
- b. Bhopal

- c. Damoh
- d. Dewas

Section 3: Social Awareness

31. Who is the first India track-and-field athlete to win a gold medal at the Olympics?

- a. PT Usha
- b. Abhinav Bindra
- c. PV Sindhu
- d. Neeraj Chopra

32. POCSO act deals with-

- a. Protection on women from domestic violence
- b. Protection of children from for sexual offense
- c. Protection of students from ragging
- d. Protection of Indian citizens from religious discrimination

33. What was the theme for World Health Day 2024?

- a) Health for All
- b) My Body, My Choice
- c) My Health, My Right
- d) Wellness for Everyone

34. Which Indian documentary made history earlier this year by becoming the first to win an Oscar?

- a) The Lion's Tale
- b) The Elephant Whisperers
- c) The Tiger Roars
- d) The Bear's Secret

35. Which building has been designated as the Parliament of India in 2023?

- a) Rashtrapati Bhavan
- b) Red Fort
- c) The latest Parliament Building of India
- d) The Parliament House of India

36. Which government initiative aims to provide universal health coverage in India?

- a) Ayushman Bharat
- b) Swachh Bharat Abhiyan
- c) Pradhan Mantri Jan Aushadhi Yojana
- d) National Health Mission

37. Which Indian state has the highest literacy rate?

- a) Kerala
- b) Maharashtra
- c) Uttar Pradesh
- d) Rajasthan

38. What is the main objective of the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)?

- a) Providing free healthcare to rural residents
- b) Ensuring food security for rural households
- c) Guaranteeing 100 days of wage employment in a financial year to every rural household
- d) Providing financial assistance for higher education to rural youth

39. Which of the following is part of the Preamble to the Constitution of India?

- a) a cultural nationalist sovereign republic
- b) a sovereign liberal secular democratic republic
- c) a sovereign socialist plural democratic republic
- d) A sovereign socialist secular democratic republic

40. Which one among the following states of India has the lowest percentage of the Scheduled Tribe population?

- a) Gujarat
- b) Karnataka
- c) Haryana
- d) Rajasthan

MA Development

Instructions:

- It is mandatory that the student answer the Descriptive Essay.
- Type the response in English for the Descriptive Essay on the test screen.
- Answer any one of the questions given.
- Your answer should be between **400-600 words**.

1a. Rural-urban migration has significantly increased in India in the last few years. According to you, what are the driving factors for this and what could be the remedial measures?

or

1b. The number of Indians buying and eating food not prepared at home has been increasing. In your view, what economic opportunities and challenges has this change produced in our society?

MA Education

Instructions:

In the following descriptive question we consider your overall ability to respond to a given issue of importance. The answer should be no more than **400** words in length. Avoid writing in bullet point forms.

Your response will be assessed for the following aspects:

- Your ability to take an informed position.
- Application of social awareness and critical thinking.
- Inclusion of diverse perspectives.
- Coherent writing.

Question:

What is the role of information and communication technology (ICT) in school education? Explain with an example.

MPH**Part 1: Select one of two questions****Instructions:**

Choose **ANY ONE** from the questions given below. The length of the essay should be between 600-700 words, excluding the title, and any references, if provided.

1. Socio-cultural factors play an important role in women's health. Explain some of these factors in the context of health and healthcare access for women.
2. People living in urban informal settlements (otherwise called slums) in major cities of India are vulnerable and face multiple health risks. Discuss some of the health challenges faced by them and some ways to address these challenges?

Part 2: Mandatory Essay question**Instructions:**

Answer the following questions based on the passage given below. Respond to the following questions (1), (2) and (3) in less than 200 words for each question.

ASHAs: Informal workers in the formal sector

by **ANIRUDH CHAKRADHAR, SUDEV MADHAV**

<https://idronline.org/article/rights/ashas-informal-workers-in-the-formal-sector/>

India, like most developing countries, is no stranger to the persistence of informal employment, described as all work that is not adequately registered, regulated, or protected by legal frameworks. It covers a plethora of employment arrangements, including those involving daily wages such as agricultural workers, self-employed persons such as hawkers, and even contractual labour.

Estimates suggest that more than 90 percent of employment in India is informal. People joining the labour force will only increase over this decade, and if the trend persists, so will those engaged in informal employment. This is a serious cause of concern, as informal workers face several precarities—exploitation in wage payments, hazardous working conditions, limited access to social security—all without adequate legal protection. Naturally, there is a focus on reducing informality, both in policy responses and multilateral action, by agencies such as the International Labour Organization (ILO).

However, the characteristics and precariousness of informality are also prevalent in several forms of employment in the formal sector, including within key government programmes, many of which are dominated by women. One such example is that of accredited social health activists (ASHAs).

Understanding ‘informal’ care work by ASHAs

ASHAs are female community health workers (CHWs), who serve as the first—and sometimes only—point of contact between grassroots communities and the public health system. Drawn from the community, they are trained to perform functions including spreading awareness, facilitating access to healthcare entitlements, and promoting maternal and child health. These functions are often added to in periods of crisis, like the pandemic, or through specific healthcare schemes. For example, ASHA workers are involved in distribution of tablets under the Union Government’s Anemia Mukt Bharat programme. State programmes do this too, an example being Telangana’s KCR Kit scheme, which requires ASHAs to support the distribution of kits to pregnant mothers.

ASHAs have become indispensable to the public health system, even winning the WHO’s Global Health Leaders Award. Yet, their status as formal workers is contentious. Though counted as workers by statistical arms of the government, they are not treated on par with formal workers in practice. Instead, their employment is better characterised by non-standard forms of employment. Non-standard employment can take various forms, such as outsourced, contractual, daily wage, or volunteer work, and the work by

ASHAs comes closest to the last category. Due to this, ASHAs face several deficits in decent work, akin to informal workers. Here are some examples:

1. Working hours

ASHAs were envisaged as part-time workers, operating for only four to five hours a day. However, in rural areas, one ASHA caters to approximately 1,000 people, while in urban areas this number is as high as 2,500 people. Catering to this mammoth population entails a significant investment of time. Functions built on over a period of time, care duties towards the community, record-keeping needs, and, in particular, responsibilities during emergencies like the pandemic mean that ASHAs often spend full days working, without any fixed working hours.

2. Wages

The minimum wage for an ancillary nurse/midwife in Karnataka ranges from INR 12,580 to INR 13,540 per month, while in Himachal Pradesh the minimum wage for a semi-skilled healthcare worker ranges from INR 10,175 to INR 11,100 per month. This is not the case with ASHAs, who, by virtue of being treated as part-time volunteers, are not paid wages but an honorarium with performance-based incentives instead. The amounts paid are well below standards for minimum wages. There are wide state-level variations in the honorarium amounts as well, but reports suggest they are usually not more than a few thousand rupees, with a few thousands more released as incentive-based payments. Therefore, despite working long hours, ASHAs earn a nominal sum, with no compensation for working overtime.

3. Working conditions

ASHAs have repeatedly been let down when it comes to occupational safety and working conditions, having to resort to protests for enforcement of basic rights. During the pandemic, for instance, despite being christened ‘COVID Warriors’, they had to fight for the provision of personal protective equipment. This is not simply a reflection of logistical challenges emerging from the pandemic, but a symptom of larger malaise. Even prior to the pandemic, ASHAs have raised (largely unmet) demands for provision of transport options or allowances. This despite them being field workers who must attend to patients at odd hours, and in potentially unsafe environments.

4. Social security

ASHAs do not fall within the provisions of the Employees' State Insurance (ESI) and Employees' Provident Fund (EPF) schemes, a demand for which has been raised by unions. Perhaps the most blatant admission of their informality is their inclusion in the e-Shram programme, which is specifically initiated to create a database for provision of social security to unorganised workers. Though welcome in terms of the protection that it offers, it is puzzling that ASHAs are deemed unorganised, despite being integral to the healthcare system. Similarly, in 2018, the central government passed the ASHA Benefit Package, which extended social insurance cover to eligible ASHAs under two schemes. However, these are public insurance schemes available to citizens at a nominal premium, with the only benefit for ASHAs being that the premium is borne by the government. This is a far cry from the demands of ASHAs. The lack of social security for ASHA workers was further highlighted in 2020, when they staged nationwide protests for extension of medical coverage, payment of arrears, and increase in wages.

Aside from these challenges, ASHAs are women foot soldiers in a society with deep-rooted patriarchal norms. This leads to them facing harassment, and sometimes even violence, from community members. As women, they also have the additional, socially imposed responsibility of caring for their families, which is unpaid work.

Looking at the larger picture

However, this informality is not limited to ASHAs. Several other categories of workers in various government programmes face similar challenges. These include anganwadi workers and mid-day meal workers. The part-time nature of their work is often stated as the reason for this. However, it is well known that these roles are far from part-time. Anganwadi workers, for instance, serve as both healthcare workers and educators, and are often given work well outside their scope, such as administering medication, tracking and surveying widows and persons with disability, and even surveying cattle in some cases.

How can we serve these workers better?

The answer is simple: We must recognise their efforts and formalise their conditions of work.

And experience has shown us that it is possible for governments to do so. Take the example of community health workers in Pakistan whose work has been successfully formalised through the efforts of the All Pakistan Lady Health Workers Association. While they still face struggles and delayed payments, their

formalisation has had several positive effects. For instance, it has led to an increase in the incomes of women health workers, who often come from economically vulnerable backgrounds. As they are the majority earners in their households, this formalisation has also had positive spillover effects on the education of their children, management of health issues, and the day-to-day running of their households. In India, the Odisha government recently announced that it would regularise contract workers, showing us that formalisation is possible.

It is crucial for policymakers to acknowledge that ASHAs and many such workers perform essential functions at the grassroots level. Formalising their working conditions and wages will allow them the security they need and enable them to perform their jobs better. These are basic entitlements that should be made available both as human rights and within the ILO's Decent Work Agenda. ASHAs themselves have been demanding this for some time now, and several important stakeholder groups have shown support. The service conditions, wages, and social security for various categories of workers in different government schemes (including ASHAs), for example, was discussed in both the 45th and 46th sessions of the Indian Labour Conference (ILC). Among the recommendations of the 46th ILC was the coverage of ASHAs under ESI and EPF.

In 2020, the Parliamentary Standing Committee on Labour also stated that the work of ASHA and anganwadi workers must be formalised, their wages must be defined instead of following an incentive and honorarium basis, and they should not be treated as honorary workers.

While the fiscal implications of formalising these workers are undoubtedly large, they must be considered long-term investments in healthcare and decent work. As evidenced with the LHWs in Pakistan, formalisation can result in greater public visibility including greater validation and acknowledgment for ASHAS as legitimate workers. Formalising their work will also mean that their care work is better valued, both financially and in society.

1. How does the classification of ASHAs as non-standard workers affect their working conditions, wages and social security? (200 words)
2. Do you think improved working conditions for ASHAs can lead to better health for communities in India? Explain with examples (200 words)
3. Reflect on how gender influences the working conditions of non-standard workers in government programs. Discuss with some examples (200 words)

