

6. Write sentences using the following words:
(10 × 1 = 10)

- (a) academic
- (b) adaptive
- (c) exhausted
- (d) flexible
- (e) machinery
- (f) massive
- (g) murderous
- (h) poacher
- (i) pulp
- (j) resilient

APRIL 2024

71248/LZ14B

Time : Three hours

Maximum : 50 marks

Answer any FIVE questions.

Each question carries 10 marks.

1. (a) Read the following passage and complete the task: (8)
- Dr. Sarabhai is considered as the Father of the Indian space program; He was a great institution builder and established or helped to establish a large number of institutions in diverse fields. He was instrumental in establishing the Physical Research Laboratory (PRL) in Ahmedabad; after returning from Cambridge to an independent India in 1947, he persuaded charitable trusts controlled by his family and friends to endow a research institution near home in Ahmedabad. Thus, Vikram Sarabhai founded the Physical Research Laboratory (PRL) in Ahmedabad on November 11, 1947. He was only 28 at that time. Sarabhai was a creator and cultivator of institutions and PRL was the first step in that direction. Vikram Sarabhai served of PRL from 1966-1971. He was also Chairman of the Atomic Energy Commission. He along with other Ahmedabad-based industrialists played a major role in the creation of the Indian Institute of Management, Ahmedabad.

The establishment of the Indian Space Research Organisation (ISRO) was one of his greatest achievements. He successfully convinced the government of the importance of a space programme for a developing country like India after the Russian Sputnik launch.

Dr. Homi Jehangir Bhabha, widely regarded as the father of India's nuclear science program, supported Dr. Sarabhai in setting up the first rocket launching station in India. This center was established at Thumba near Thiruvananthapuram on the coast of the Arabian Sea, primarily because of its proximity to the equator. After a remarkable effort in setting up the infrastructure, personnel, communication links and launch pads, the inaugural flight was launched on November 21, 1963 with a sodium vapour payload.

Dr. Sarabhai was very interested in science education and founded a Community Science Centre at Ahmedabad in 1966. Today, the Centre is called the Vikram Sarabhai Community Science Centre.

(i) What metaphor is used at the beginning of the poem to describe the situation in New Delhi? (2)

(ii) What does the poet imply by stating "Enemies of poetry gather in your city"? (2)

(iii) How does the poem describe the natural environment of New Delhi? (2)

(iv) What elements of power and culture are highlighted in the poem? (2)

(b) What critical perspective does the poet offer on the leadership and political power in Delhi? (2)

5. (a) How does "The White Tiger" portray the impact of globalization on India's social classes? (5)

(b) How does Balram's character reflect the challenges and opportunities presented by globalizaion? (5)

Over there, the Rashtrapati Bhavan.

How ruthlessly has this city been combed
and groomed!

White elephants sway at the gate of the past.

Goldsmiths mould replicas of peacocks.

Your well-carpentered glory.

Long Kashmiri carpets are rolled out in your
streets.

Armed regiments on alert;

The showy itch of culture;

Wooing guests, dancing before them;

Parading cavalry;

Anti-aircraft guns;

Nuclear missiles to frighten off enemies;

The President accepting a salute from those
hanging between the sky and the earth;

The Prime Minister shaking hands

With the glorified blemished.

Bravo!

Dr. Vikram Sarabhai was born on 12 August 1919 in the city of Ahmedabad, Gujarat State in western India. The Sarabhai family was an important and rich Jain business family. His father Ambalal Sarabhai was an affluent industrialist and owned many mills in Gujarat. Vikram Sarabhai was one of the eight children of Ambalal and Sarla Devi.

Sarabhai matriculated from the Gujarat College in Ahmedabad after passing the Intermediate Science examination. After that he moved to England and joined the St. John's College, University of Cambridge. He received the Tripos in Natural Sciences from Cambridge in 1940.

With the escalation of the Second World War, Sarabhai returned to India and joined the Indian Institute of Science in Bangalore and began research in cosmic rays under the guidance of Sir C. V. Raman, a Nobel Prize winner. He returned to Cambridge after the war in 1945 and was awarded a PhD degree in 1947 for his thesis titled Cosmic Ray investigation in Tropical Latitudes. Dr. Vikram Sarabhai died on 30 December 1971 at Kovalam, Thiruvananthapuram, Kerala.

- (i) Who is considered the Father of the Indian space program and what was one of his greatest achievements? (2)
 - (ii) Can you list some of the key institutions established or influenced by Dr. Vikram Sarabhai? (2)
 - (iii) What was the first rocket launching station in India and who supported its establishment? (2)
 - (iv) Describe Dr. Vikram Sarabhai's educational background and early research interests. (2)
- (b) Discuss the importance of Thumba as the location for India's first rocket launching station. (2)

2. (a) Read the following passage and complete the task: (8)

On the one hand, we ourselves live daily with the threat of annihilation. We're just a computer button and a few minutes away from it, and the gap between us and it is narrowing every day. We secretly think in terms not of "If the Bomb Drops" but of "When the Bomb Drops" and it's understandable if we sometimes let ourselves slide into a mental state of powerlessness and consequent apathy. On

- (i) What is a key change suggested for India's education system to better prepare for technological advancements? (2)
 - (ii) Why is there a need for constant skill upgrades in India, and which institutions are mentioned as needing to redefine their roles? (2)
 - (iii) What characteristics are important for the future workforce in India to meet the challenges of new technological paradigms? (2)
 - (iv) How can India prepare for the new era of technologies like AI and blockchain? (2)
- (b) Why is it important for India to focus on the social sector, and what benefits are anticipated from this focus? (2)

4. (a) Read the following passage and complete the task: (8)

The needle probes for the artery;
 Enemies of poetry gather in your city.
 Your town is cursed with power;
 Roses flow in this stream of blood;
 The waters of your Yamuna stand exposed.
 India Gate:

Thirdly, we must create a highly flexible, resilient and adaptive workforce which is multi-skilled and has the capacity to undertake digital tasks from anywhere rather than a fixed location.

Fourthly, we must initiate measures to ensure that Indians are fully prepared to embrace the new era of AI, blockchain, additive manufacturing and emerging technologies. India cannot afford to bypass this revolution. This requires a new mindset. Our policies must this change.

Fifthly, we must work across disciplines and institutional boundaries. We must break silos. Medical data is an example. Life saving opportunities can be utilised by sharing large sets of genomic data across different health providers and research organisations.

Sixthly, our focus must be on social sector—education, health, nutrition where new technologies will enable us to improve the quality of life and enhance our human development index. These are also the sectors where maximum jobs will be created. Countries are still navigating the early stages of this new industrial revolution. Can India jumpstart this transformation?

the other hand, the catastrophe that threatens us as a species, and most other species as well, is not unpredictable and uncontrollable, like the eruption of the volcano that destroyed Pompeii. If it occurs, we can die with the dubious satisfaction of knowing that the death of the world was a man-made and therefore preventable event, and that the failure to prevent it was a failure of human will.

This is the kind of world we find ourselves in, and it's not pleasant. Faced with facts this depressing, the question of the economy - or how many of us in this country can afford two cars doesn't really loom too large, but you'd never know it from reading the papers. Things are in fact a lot worse elsewhere, where expectations center not on cars and houses and jobs but on the next elusive meal. That's part of the down side. The up side, here and now, is that this is still more or less a democracy; you don't get shot or tortured yet for expressing an opinion, and politicians, motivated as they may be by greed and the lust for power, are nevertheless or because of this, still swayed by public opinion. The issues raised in any

election are issues perceived by those who want power to be of importance to those in a position to confer it upon them. In other words, if enough people show by the issues they raise and by the way they're willing to vote that they want changes made, then change becomes possible. You may not be able to alter reality, but you can alter your attitude towards it, and this, paradoxically, alters reality.

Try it and see.

- (i) What existential threat is discussed in the text, and how do people generally perceive this threat? (2)
 - (ii) How does the text contrast the threat of nuclear annihilation with natural disasters? (2)
 - (iii) According to the text, why do economic concerns seem trivial in the context of the discussed existential threat? (2)
 - (iv) What "up side" does the text identify despite the grim realities it describes? (2)
- (b) What does the text suggest about the power of altering attitudes towards reality? (2)

3. (a) Read the following passage and complete the task: (8)

What does India need to do to embrace technology, create new jobs and meet the requirements of the changed scenario?

Firstly, we must realign India's education system to emphasise skills rather than mere degrees. We must move away from the Anglo-Saxon system of education with emphasis on academic degrees, toward hands on learning in practical subjects. A beginning has already been made by Atal Innovation Mission. By 2018 end, nearly 2000 schools will have Tinkering Labs with robots, 3D printers, additive machinery, Internet of things and mentors so that children from class 6 onwards can build and experiment rather than only imbibe.

Secondly, we must constantly upgrade skills. There is a severe shortage of skilled manpower. India needs massive upgradation programmes in new technologies. Our IITs and IIITs must redefine themselves as institutes driving cutting edge technologies for the fourth industrial revolution.