

ESSAY MOCK TEST

Time Allowed: 3 hrs.

Max. Marks: 250

Instructions to Candidate

- Both sections are compulsory.
- Attempt one essay from each section.
- Each essay carries 125 marks.
- Write each essay in about 1000-1200 words.
- After finishing the first essay, attempt the next on a fresh Page.
- Any page left blank in the answer-book must be crossed out clearly.

(Examiner will pay special attention to the candidate's grasp of his/her material, its relevance to the subject chosen, and to his/her ability to think constructively and to present his/her ideas concisely, logically and effectively).

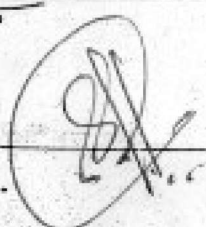
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H. Singh

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Date 18.10.2018

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2. Invigilator Signature _____

Remarks

Section 4

"Robotics is both the biggest challenge and opportunity for world."

"69% of jobs in India and 97% in China will be threatened due to robotics and automation" - says a World Bank report. Robotics poses a big threat to the world as is evident from the report. Routine jobs involving low skilled workers are particularly under threat. Thus, the luddite movement of 20th century raised apprehensions about robotics. But there is another side to the story. Let us see.

Robotics can be of great help in hazardous industries, internal security and in the society. From our daily chores like switching on lights and drying to complicated tasks.

ted works like surgeries, border security, all will see a great transformation.

The essay will analyse these challenges and opportunities, in social, economic and security fields. Let us see:

Robotics - a window of opportunity

Robotics refers to the ability of machines to do tasks particular to human beings without human interference. From the time of first industrial revolution in late 17th century, machines have transformed human lives significantly.

Robotics is a step forward. Here the artificial intelligence of machines has been of great help in augmenting ability of labour and capital. The result is mass production to fulfil

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needs of rising world population. Improved efficiency of labour and capital has led to wide variety of goods and services. This presents developing nations like India to improve competitiveness in manufacturing.

— Similarly, agriculture can also benefit from this emerging technology. Precision agriculture is one application. For example, sensors can indicate amount of fertilizers needed. Thus soil health will be maintained without pollution to land and water. Another example is of weather forecasting systems. This will be a step in the direction of 'CLIMATE SMART AGRICULTURE'.

Robotics, presents opportunity

socially too. By skilling the large young population in big data analytics and other such technologies, developing countries can turn their population into assets. Demographic dividend can be effectively reaped for these societies.

Productivity of population can also be augmented by incorporating robotics in health and education sectors. Let us see how.

Remote villages in developing and underdeveloped countries can be connected through quality education institutes of the world. For instance, India's SWAYAM portal is a step in this direction. Further google's loon and facebook's aquila can be used in a similar manner.

How are these related with robotics? Explain sufficiently -

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in health sector too, telemedicine in rural areas will be a great tool in improving access to affordable and quality health care facilities. This will lower out of pocket expenditure on health and improve healthcare delivery. Thus, it can work towards 'health for all' goal.

?

explain relation with robotics

Another area of application which can benefit people world over, is smart cities and infrastructure. Driverless transportation systems like pod taxi, hyper loop can reduce cost and pollution while increasing speed. Another example is of well managed sewage drains, affordable houses and intelligent traffic management. These can enhance 'ease of living' in cities.

Further, robots can ensure a

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robust national security systems. Example, use of drones for surveillance, laser fences for border security are used in Israel. guided missile destroyers have the capability of greatly enhancing national security.

But, the picture is not so rosy. Robotics is not only the biggest opportunity but also biggest challenge. Let us turn our attention towards this.

Robotics threats - an open secret

As said that, technology can be both an enabler or a destroyer. It depends on the use.

Economically, artificial intelligence is a threat to millions of low skilled as well as high skilled workers. For instance, driverless cars will lead to

rise in unemployment and poverty in developing countries like India. As is being suspected, fourth industrial revolution will lead to job losses all over the world.

Can such growth, be called inclusive? certainly not. In the name of rising efficiency, companies will increase layoffs instead.

Socially, rising unemployment poses threat of rising instability and crimes. This is evident from NCRB's report for India. Rising mechanisation is particularly dangerous to women's labour force participation. weaker and marginalised sections with already lower access to education and health will face further exclusion.

Further, robotics also raises many ethical issues. For example, lack of ability to judge things in driverless cars leads to threats. This was seen in Australia when automated algorithms raised prices when demand for cabs was high during a shootout.

Then, there are issues of unexpected mutations in techniques like gene editing based on AI. Lack of sufficient research on the effects of use of AI in health can be dangerous to health as well as environment.

Also, there are issues of accountability and responsibility. Who will take the responsibility if adverse consequences occur?

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AI, thus poses challenges and raises opportunities as well. The solution lies in taking steps to expand opportunities and lowering adverse effects. Let us see how

Way Forward - Turning robotics into an enabler:

Firstly, there is an urgent need to skill and reskill workers in emerging technologies. For example, Infosys in India and companies in China and U.S.A. are taking steps in this direction. This will create new jobs thus lowering apprehensions of joblessness.

Then, there is a need to incentivise research in emerging technologies. Government specifically need to create regulatory environment for that. This will ensure

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that all effects on health and environment are curbed.

Private sector is another important stakeholder in this industry. Academic linkage can help in imparting vocational education. Private sector needs to take steps to incorporate new technologies in manufacturing processes as this will define competitiveness in this age. This was highlighted in a world bank report.

Responsibility and accountability too needs to be fixed. The inauguration of a world Economic Forum's centre on fourth industrial revolution in India presents an opportunity to take the lead in the fourth industrial revolution. India cannot afford to miss the bus this time.

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For comments, look at the end of the receipt -

Section-B

"A civilised society must recognise that a woman is a mother, a daughter, a life partner, but above all she is a mother."

Reena is a 40 year old woman. She has a husband and two daughters. Thus being a life partner, she is expected to take care of her husband's needs, and as a mother, her children's needs. She works 24x7, cooks food for them, takes children to school and teaches them at home. Wait. What does Reena do for herself? She has actually forgotten herself. Being a working professional, she faces double burden of home as well as work. In this rush, she often falls ill and still unable to find time

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do go to a doctor or even eat properly, isn't it the responsibility of her family and society to take care of her, as she takes care of them?

The anecdote presents the stark reality of millions of women. Women from ancient times are revered as mothers.

but they have somewhere lost their own individuality in this wave of expectations.

This calls for a careful analysis. Let us see.

Women as an individual

As a professional, women can contribute to a nation's growth and development. IMF report states that raising women's labour force participation rate at par with men can raise India's GDP by 27%. Thus, in swami vivekanand's

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good

words, just as a bird cannot fly with only 1 wing, similarly, a nation cannot prosper without half of its workforce. This role of women, as a professional needs to be recognised.

Economic participation has many advantages for a woman. She gains financial independence. According to Amartya Sen, women's freedom is essential to raise their wellbeing. Further, it raises their self confidence. Thus, development of this aspect should be recognised by men.

~~With~~ Financial independence not only raises a woman's economic well being, but also her status and dignity in society. Men need to realise that women are not made to stay at home

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and do only household work. But her social well being is equally important.

Education and health are important determinants of social well being. Recognising this reformers like D.K. Karve and Ishwar Chandra Vidyasagar took steps for upliftment of women's status through education. D.K. Karve himself married a widow. This mentality is essential to recognise women's rights as an individual.

Health, similarly, is essential for women's upliftment. As per official data, more than 50% women in India are anaemic. Malnutrition among women is a serious concern. In absence of basic healthcare, women's role as a mother and life partner would also be jeopardised.

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women's needs should form a priority in household's list. As an individual, they command love, respect and care only because, household work is not paid for, does not provide us a reason to not care for them enough.

But what are the challenges in complete recognition of women's rights as an individual? Let us see.

Challenges in women's life

International Labour Organisation's recent report highlights low participation of women at workplaces. The reasons relate to lack of recognition of women's rights.

For instance, monster index reveals that in India, ϕ women are paid 20%

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lower than men. Thus, lack of respect towards women's work at workplace as well as same creates hurdles for their participation. Further, these are cases of sexual harassment at workplace.

Women, also, are unaware of their rights ~~are~~ as individuals. Many fine women prefer not to raise voice against injustice, violence and harassment. Family dignity, fear of losing job and lack of mechanism for grievance redressal are some reasons. The recent Me Too movement exemplifies this.

Further, women's role as mother, daughter and life partner have been recognised by society for long. But rigid and conservative mindset, patriarchy prevent recognition of women as

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Individuals. The result is lack of enough opportunities to realise her true potential. To illustrate, female infanticide and child marriage are still prevalent in many parts of India. This is the result of the mindset that visualises females as burdens.

- Also, patriarchy in institutions of government has also viewed women only as recipients of welfare. For example, lack of political willingness to pass 108th amendment bill in parliament. As a result, women specific programmes have received a setback.

The Nibhaya fund for improving women's security still remains largely unutilised. Laws for women's safety

RIC Sexual Harassment at workplace Act are not implemented properly.

Thus All these reasons are at the foundation of lack of dignity to women as an individual. They ^{tend to} restrict women to the confines of her home and not realise her true self.

But as Jawaharlal Nehru had said that the nation moves when its women move. This points towards need for steps for women empowerment and gender equality.

Towards a new dawn

First and foremost, society needs to break free from the confines of patriarchal mindsets. Rights of women need to be recognised. Steps like selfie

with Daughter and Beti Bachao, Beti padhao will help in this.

Further, education and health can be a great leveller, in our quest towards gender equality. Thus, schemes need to specifically focus on girls' education and healthcare. Also, there needs to be a crackdown on illegal predetermination of sex of the child. This needs strict implementation of Prevention of Prenatal Sex Determination Act, This will surely lead to recognition of women as individuals.

Similarly, workplaces need to ^{be} made more secure. ^{All} Companies must establish an Internal complaints committee on an urgent basis. Proper grievance redressal

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and punishment to accused is necessary. For ensuring equal wages, to men in companies must realise women's essential role. This will further dignity and independence to women.

✓ In our quest towards women empowerment, the earlier men realise women's individuality, the better it is for the society as well as women. So that one day, when Reena's daughters grow up they do not face the problems that her mother did. Reena must be wishing-

'One day I want to wake up and see that gender equality is real!'

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Section A

Explain 'Artificial Intelligence' more clearly
with suitable example -

Each examples that you've given must be
clearly linked with concept of robotics -

when you write about positive implications,
bring such examples that necessitate

robotics and not only increase our luxury and
leisure -

Bring concrete facts, data and examples when you
write about dangerous impacts -

Also, see how robotics will fundamentally impact
definitions of 'human beings' and human relationship
and how politics is done in society -

Read about idea of universal basic income -

Start with a rigorous, well-reasoning to
properly organize your ideas -

Section B

Broader, mainstream arguments about general equality of women dismissed well but if you carefully reflect on the topic, you'll see that it's about 'individuality'!

when you talk about professional success, aren't you reducing women to 'resource' for capitalist development? Think!

when you give somebody 'freewill', it also means that you should not interfere that being working outside home means a better life.

Talk also about how wishes' like loving, marriage, sexuality, code of conduct etc - are all dictated by women's relation with men - Get examples -

Finally, relate with sexual division of labour and how it makes women subservient in all senses -