

EVALUATION INDICATORS

1. Alignment Competence
2. Context Competence
3. Content Competence
4. Language Competence
5. Introduction Competence
6. Structure - Presentation Competence
7. Conclusion Competence

Overall Macro Comments / feedback / suggestions on Answer Booklet: .

1.

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All the Best

① RISE OF THE MACHINES: AN OPPORTUNITY OR THREAT TO HUMANITY?

'It is 9 a.m. in the morning and the plant has assembled 2000 cars over last 24 hours with no human personnel working over assembling job'.

The above statement highlights the extent of mechanisation at Ford Motors assembly line. With the advent of 4th industrial revolution, machines have assumed as much significance for human beings as any other day to day equipment.

The development of Artificial Intelligence, Machine learning have imparted almost everything from household to workplace; transportation to communication; poor to rich; public sector to private sector so on and so forth.

~~It has b~~
Machines can be defined as a congregation of equipments working as per a pre-designed programme.

It includes appliances as small as a grinder in kitchens to computers in workplace to robots in factories.

Machines have proved to be a game changer in the 21st Century and have improved effectiveness and efficiency of operations at all levels. It has proved to be a boon for the mankind.

Technology has impacted the society in almost all its spheres. It has improved the public service delivery. For instance, Metro card recharge machine has reduced the waiting time at the manual counters.

The lakshmi robot of City Union Bank, Chennai has undertaken routine work of passbook print-ing etc. providing convenience to the citizens.

They provide great opportunity for uplifting the poor and vulnerable section of society. For instance, manual scavenging can be replaced with robot driven cleaning operations, respecting the dignity and right to life of the individuals. They are being used in hazardous industries such as nuclear power plants, chemical industries which pose a risk to life of the humans.

Artificial Intelligence has transformed the education system as well. Using machine learning,

needs, capabilities, abilities of an individual child can be understood very well. Using this, a customised study plan can be developed to realise the potential of the student. Hence, the present system of 'one size fits all' can be replaced with an outcome oriented system. Recently, Google had demonstrated the same in its labs.

Health care has always been a contentious issue, especially for a country as populous as India. There is a dearth of doctors, healthcare personnel affecting the quality of life of people. The poor, rural people, tribals are the most affected. Technology and machines have emerged as a promising solution in this respect.

IBM Watson computer has devel-
-oped as a "Cancer doctor" where
- in the computer matches the
report of patient with various
types of illness possibilities
and suggests the treatment to
the doctor. This would not have
been possible otherwise. It
saves time, effort and money
on redundant activities.

Disasters were considered as an
act of God which were out of
human control. It was believed
that mortal beings are destined
to face the uncertain events
and face the wrath of these
catastrophes. However, the
computing technology have
enabled the mankind to predict
such events in advance and
reduce the risk of loss to the
minimum.

The Pratyush computer with its 6.5 petaflops speed will enable India to forecast weather, adverse events such as El-Nino, monsoon prediction. This will help the farmers to prepare well, prevent forest fires, loss to natural heritage etc.

Machines have transformed the public utilities as well. Now, Intelligent transport systems are being developed. They can control the traffic flow on real time basis with more precision and reduces the risk of accidents and loss of human life. Use of FASTags to pay the toll using RFID tech has reduced car waiting time and number of clashes at toll plaza.

The technology of self-driven cars, as experimented in Singapore, by MitTech, can be a game changer. It can serve the needs of elderly, people who are unable to drive.

Development of intelligent charging stations to charge public buses within a few seconds have proved extremely beneficial in Netherlands. It has enabled the use of renewable energy, reduced the pollution caused due to diesel run buses, created employment opportunities.

Machines have successfully transformed the workplace. Now, routine and standard jobs are being performed by robots. It leaves more time for man -agers to focus on Research &

Development, planning and strategising. It also leaves more time for leisure, peer group interaction thus, satisfying human beings at a psychological level.

It reduces the cost of organisation due to labour strikes, ensures timely, effective and efficient completion of jobs.

Machines have also impacted the policies and strategies at National level. Now, Unmanned aerial vehicles are being used to monitor and map difficult terrain such as Ladakh, Doklam by the Indian army.

Smart fence borders have been used across India-Bangladesh border to prevent infiltration

and illegal migration into the Indian territory.

The development of NAVIC satellite - it has provided the civilians and army with precision navigation system, which other - use is very difficult. The use of machines has enabled the Border Roads Organisation to cut the mountains and build roads which till now was impossible.

Machine technology, artificial intelligence, biotechnology has brought a data revolution as well. Now, the big data which is being created every second can be easily stored in as small as human DNA.

The analysis of such big data has also been made possible. Conclu

- since outcomes can be drawn from these huge information which can be used for human welfare such as understanding human psychology, behavior etc.

However, this machine revolution has its own threats.



Threats and challenges:

The biggest threat posed by machine technology is of unemployment. As per NASSCOM report, it shall render at least 30% of existing Indian workforce jobless as the jobs which they are performing now will no longer exist.

It shall also impact the IT ITeS professionals adversely. They shall have to update their skills; learn new skills in order to be competent. It shall impact the Indian services exports such as BPO leading to high current account deficit, falling forex reserves.

The poor, vulnerable, elderly who cannot afford to spend on training will be the worst affected. Mechanisation poses a huge threat to the demographic dividend of India. If not trained, it shall turn into a demographic disaster as noted by NTI Aayog in its 3 year action agenda.

There is a possibility that the mechanisation wave may create

further exacerbate inequality.
The poor, who are unable to
afford these technologies may
remain backward whereas the
forward sections of society
shall progress.

It can lead to neo colonisation.
Those who own and control the
machines can indirectly control
the innocent people and rob
them of their psychological free
-dom. It can reinforce a
certain type of behavior
without showing the other
side.

It can hamper the very fun
-dations of a Nation's democracy.
as seen in recent facebook-
Cambridge analytica case where
-in the data collected and
analysed by the machines was
used to plant 'fake news'

and influence voter behaviour at a psycho-analytical level. Thus, destroying the premises of free and fair elections.

Way forward and conclusion:

The speech of 'Sophia Robot' at UN highlighting the humanitarian crisis faced by the world is a ray of hope. It indicates that machines, if properly regulated, can contribute towards human development.

The United Nations should frame guidelines to ensure peaceful use of machines. It should be used to enhance people welfare. Restrictions should be placed on its use for military and warfare purposes. Data protection laws as suggested by BN Srikrishna Committee should be formulated.

Skilling, upskilling and reskilling should be done to prevent unemployment from rising. Newer areas of opportunities and employment such as Internet of Things, big data should be harnessed with appropriate policy initiatives. Access to financing for start-ups should be made hassle free.

Industry-academia-society connect should be enhanced so that the fruits of modern innovation percolate down to the grass root level. Commercialisation of patents should be focused.

This shall enable us to achieve the Prime Minister's Vision of:

Indian Talent + Information Technology = India Tomorrow.

②

RIGHTS BASED APPROACH IS KEY TO SOCIO-ECONOMIC DEVELOPMENT

India ranks 108th in Global Gender Gap report; 100th in Global Hunger Index, with 73% of its wealth being owned by 1% of its population (Oxfam report). The nation is home to 55-5% of people who are multi-dimensionally poor; approximately $\frac{2}{3}$ rd of its population dwells in rural areas who are largely dependent on agriculture with poor profitability (NSSO).

The above mentioned facts highlight the plight of socio-economic development in even after 70 years of independence.

Historically, at the time of independence, India adopted a mixed economy structure wherein

both public sector and private sector were to operate simultaneously.

The Government focused on areas which needed immediate attention and were out of the capacity of the private sector. High priority was accorded to food security and reducing hunger. A beneficiary based approach was adopted by the administrators. It was correct at that time as the resources with the state were limited and focus was to be made on multi-dimensional aspects.

This is also reflected by the vision of our forefathers in Constituent assembly who introduced Part IV (Directive principles of state policy) as non-justiciable guides for

the state for welfare and development of the nation. They believed that the time was not ripe for them to be imposed as an obligation of state due to its limited capacity.

Rights based approach

Rights based approach implies making public service as legal entitlement of the citizen. It gives the right to the citizen to demand performance of the obligation. If not performed, legal remedy can be sought for his right violation. It gives the citizen a choice whether to avail the service or not but imposes an obligation on state wherein they are duty bound to provide the service.

It makes the governance citizen centric. It forces public servants to be more alert, pro-active, accountable, time bound,

and reduces nepotism, favoritism
by ensuring equality.

The socio-economic development
requires a multi-pronged approach
with people - public-private
sector participation. It demands
empowered citizenry.

However, the growth of rights
based approach in Indian govern-
-ance model has been slow. Vari-
-ous reason can be attributed for
it. First, there has been a
lack of political and bureaucra-
-tic will. Second, there has
been low awareness among the
citizens and vested interests
stifle the voice of civil society.
Thirdly, there has been lack
of resources with the state.
But its slow and gradual
development has seen fruits of
success.

Rights based approach has ensured food security in the Nation. The Public distribution scheme; National Food security Act has entitled the poor to certain quantity of ration at a pre-fixed price. This has enabled the poor, destitute, elderly, vulnerable, tribes etc. to meet the basic need of hunger.

In 1970's, approximately 46% of Indians were poor (as per Tendulkar estimates). However, with the enactment of Mahatma Gandhi National Rural employment Guarantee Act, 2005, 100 days of guaranteed employment has been provided to every rural household. This has led to reduction in rural poverty, improved the standard of living, enhanced farmers income as they find alternate

source of employment during lean season. The Act imposes legal responsibility on the state to provide allowance if the said days of employment have not been provided. It has led to paradigm shift in socio-economic welfare.

On a similar note, the Right to Information Act, 2005 has been a revolutionary change. It has improved transparency and accountability. It has empowered the citizen to seek information in a time bound manner. It enables the citizen to expose corruption, nepotism, crony capitalism, embezzlement of public funds to general public.

This has enabled more efficient

use of government resources as any inefficiencies can be brought in public domain. It has

It has also led to social empowerment of people as they can make better choices during elections based on a scrutiny of the governments deeds, follies and achievements.

Another feat of rights based approach is highlighted in the Right to free and compulsory education Act, 2009. It imposes an obligation on the state to provide free and compulsory education to children between the age of 6-14 years. This has drastically improved the literacy rate in the society.

Primary education has seen 100%. Gross enrolment ratio. Coupled with it, the mid-day meal scheme guaranteeing a nutritious diet in school has helped in improving the retention and attendance rate in school. This enables the new generation to have basic functional knowledge of reading, writing and arithmetic which enables their better participation in job market, faster gaining of vocational skills, better quality of life. This reduces the welfare burden on the state and makes these people as active contributors to society.

Hence, we have seen that the rights based approach contributes to socio-economic development.

In a similar fashion, Senior Citizens Welfare and Maintenance Act, 2005 has ensured that children do not desert their parents in old age and give a maintenance amount to ensure their sustenance. This helps in keeping their psychological, economical and emotional balance in old age.

However, there are certain areas which are lacking behind badly. One such area is Health care. The poor and vulnerable are the worst sufferers. They do not have resources to get the ailments treated affecting their physical ability to work and earn. It also drains them of their financial savings imparting education, food of childrens conversely.

The Government has announced a National Health protection scheme to cover the BPL households for secondary and tertiary care treatment but it falls short of making it as a legal right of the poor. Hence, this scheme may also succumb to poor implementation, corruption etc.

Another area is housing. Although various schemes such as Indira Awas Yojana, Housing for All have been initiated but they have not been able to achieve time bound objectives. Hence, we see people living in slums, footpaths where they are prone to various diseases, accidents etc.

Making housing a legal entitlement
shall ensure its time bound
provision.

Now, with the spread of information technology, it is time
to think about higher level
rights as well. Kerala has made
'Internet services' as the basic
human right. This shall ensure
citizens right to claim the same
from government. It ensures
that our society is modern,
hi-tech, aware and intune
with international developments.

Similarly, Meghalaya has made
social audit a legal right
of the citizens. It shall ensure
all government departments
to work in a citizen friendly
way.

Hence, there is a need to imple-
-ment the Kerala and Meghalaya
model at national level to
ensure progress of the society.

In a similar way, Nutrition
security should be made as the
goal and the provision of
pulses, eggs etc. should be
included as rights of citizens
in public distribution system.

Cue can be taken from intern-
-ational models such as Obama-
-care; Bolsa Familia of
Brazil etc. Technology should
be leveraged to improve
public service delivery.

Conclusion:

United Nations Sustainable
Development Goal 17 aims at

enhancing partnership of citizen,
private sector in development.
Rights based approach has empiri-
cally proved participation
and improved standards in
health, education, employment
and income terms.

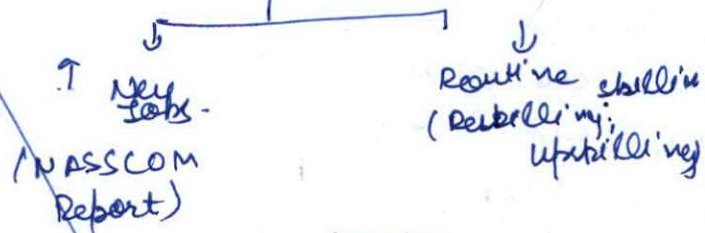
Now, It is the time to widen
its scope to ensure a truly
inclusive and egalitarian
socio-economic development by
giving legal shape to directive
principles of state policy.

① Rise of machines : an opp. machines → Sophia

Introduction → Ford Motor → Assembly Line (story) • Robot
↳ Bank

4th IR → AI / ML / Human routine work / efficiency & effectiveness ! machines → meaning

Technology → workplace → employment ..



• Society : faster

Public Utilities

↳ Robotics → City Union Bank → Household cleaning → waste time (?)
↳ Costly. (Lakshmi)

↳ Elderly → unable to operate.
↳ Poor & Vulnerable.

• Electric cars / Self-driving cars → risk.
(Intelligent transport systems) → alternative employment.

• Highways system.
→ manual manhandling.
→ chemical hazardous works.

Education → ML / Customised / every child needs

Medical care → IBM computer → cancer → healthcare help.

Concl: IOT / Sophia / R&D / balanced / skilling / Upskill ..

② Rights based

Independence:

- ↳ History → beneficiary-based approach. ✓
- > Poor people at mercy of admin.
- ↳ No real development.
- ↳ Crony Capitalism prevailed.
- ↳ Corruption.

Poor → worst sufferers. → not even basic needs fulfilled.

Vulnerable (non-tribals).

↳ Poverty.

as per should be
46%
92.74
217.

Transformation

- ↳ RTI → rights based. → empowerment.
- ↳ MGNREGS → rights based. → unemployment.
- ↳ PDS → rights based.
- ↳ RTE, 2009 → Rights based → 100% GER. → ASER Report.

Rights based meaning

