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EVALUATION INDICATORS

1. Contextual Competence
2. Content Competence
3. Language Competence
4. Introduction Competence
5. Structure - Presentation Competence
6. Conclusion Competence

Overall Macro Comments / feedback / suggestions on Answer Booklet:

1.

2.

3.

4.

5.

6.

All the Best

Section A

- ③ Has the emphasis on edtech changed Education from necessity to privilege?

Rani is class 10 student studying in Tawahar Navodaya Vidyalaya in rural part of Jharkhand. She has great interest in mathematics and computing. Due to the collaboration of her school with huge information technology companies, she can avail mentorship from volunteer software engineers ~~for~~ from the company. She can not only develop her coding skills, but also discuss her ideas with the Experts.

Kavita is a tribal girl from the same village as Rani. She studies in local government school. Due to the pandemic, her school was closed and education moved online. She had to walk 5 km to go the

neighbourly village in search of mobile network to attend her classes. Due to her household responsibilities, this becomes difficult for her and she is forced to miss online classes.

The above two stories of two girls from same village highlights the opportunities and challenges that the edtech sector is presenting to us. At one hand, it is revolutionising the field of education in unprecedented way. On the other hand, it is also making Education a privilege, accessible to few.

At this point, we have to explore what is edtech sector, why is there emphasis on it and what is the current state of affairs with respect to edtech in India. Also, is edtech fulfilling the necessity of education or making it privilege? Let's explore.

THE REVOLUTION IN EDUCATION SECTOR

The 21st century is the age of Information technology. We are at the verge of Industrial revolution 4.0 and IT has pervaded almost all aspects of our lives. It has changed the way we communicate, travel, shop, eat and also study.

Edtech stands for Education technology which essential means - use of modern technology like internet, mobile technology, Artificial Intelligence etc. in the field of Education. Edtech is one of the sunrise sector, with huge potential to growth.

With the greater adoption and push to technology in almost all sectors, Education sector is no exception. Edtech sector in India has become prominent in last one

decade. A major event that brought edtech sector in prominence is global COVID-19 Pandemic.

Before the pandemic, edtech sector was growing, but still the reach was limited. The pandemic and the needs of social distancing made edtech almost essential for imparting Education. The government has always been supporting technology in education, but pandemic accelerated its pace.

thus, one of the main reason why edtech is being emphasized is the need to continue imparting education, during the pandemic, when school were closed. According to UNESCO, around 1.6 billion children were out of school worldwide at the peak of pandemic. In such times, edtech emerged as great facilitator of Education.

The other reason why edtech is

being emphasized is its huge potential to democratise the online education system. Not only it will enhance the reach of the education system, but also can improve the quality of Education. It will bring 3 As in education sector - Availability, Accessibility and Affordability.

Thus, growth of edtech sector is inevitable and it has huge potential to fulfil the Promise of 'Education' - which is 'quality education for all'.

THE PROMISE OF EDTECH SECTOR

India is one of the fastest growing market for edtech sector. Around 55% of population in India is below the age of 25 years, with huge demand for education.

Due to this demand, in a short span of time, India has seen startups like Byjus, Unacademy, Vedantu etc. growing rapidly.

Edtech sector mainly utilises online platforms and app based solution, or use of social media apps like whatsapp to impart education. We have already seen how the entire education shifted online when the pandemic struck. The schools adopted whatsapp groups and zoom app to conduct classes. Even TV broadcasting was used (Swayam Prakha).

Similar to COVID, Edtech sector can help in continuity of education during times of other disasters. It can specially be helpful for migrant ~~students~~ students, who often drop out due to lack of continuity.

Edtech can make education accessible in the remotest corners, where establishing physical infrastructure is difficult. So, a student in North East can directly access live classes going on in Kota for IIT Preparation.

Edtech also can reduce the cost of education, as there is need for less investment. There is no need for huge buildings and infrastructure. Every student can learn with his school or university in his pocket in form of his mobile.

Edtech enlarges the availability of quality education for all. A few years ago, availing expensive UPSC coaching was a privilege of few. But these days, youtube is filled with huge amount of quality content for UPSC preparation, available to all without costing a penny.

Not only study material, student can also access the preparation strategies and experience of toppers and inculcate some of the best practices in their education or preparation for competitive exams.

Edtech also has the potential to bring more inclusiveness in the education sector. Thus,

girls who cannot go to school can access education within their own houses, removing the reservation of some of the parents in sending elder girls to school or for higher education. This gives push for 'girl education'. Girls can prepare for competitive exams, and their representation in STEM can be increased.

Not only girls, Edtech also opens the gate of education for transgender people, who are generally excluded from the mainstream education. They can avail free Youtube courses or courses offered by edtech startups and earn necessary skills.

Similarly, tribal children can be given greater choices in education by giving them content in their own language. Not only basic education, but Edtech can also be used to learn basic skills - like coding etc for greater employability.

Not only accessibility, but edtech also promises convenience. Even Job goes, domestic workers can attend classes through their mobile apps, at any time they can. Thus, edtech can help resume education of those who dropped out.

Finally, Edtech can also improve quality of education. Through tools like NPTEL, students from all over India can access lectures directly from IIT professors, even those who could not make it to IITs due to limited seats. Isn't it exciting, that a lecture from foreign professor can be accessed within the comfort of our bedrooms!

Also, incorporation of tools like Artificial Intelligence will bring personalised learning experience, help weaker students. ~~and~~ tools like Virtual Reality can make education more practical and enjoyable. Thus, edtech

Presents with huge opportunities in education.

But, every rose has its thorns.

THE DOWNSIDE OF EDTECH

Despite all the potential edtech has, at present it has created as many problems as it has solved. The same edtech, which was meant to be a leveler, has become a great divider and created inequalities.

The main reason for this is presence of Digital divide - Rural vs Urban, Rich vs Poor, Men vs Women. In rural India, not only there is lack of internet penetration, but also people lack access to devices like mobile, computer etc. Even if the families own a device, it is not available to the children of the house.

According to ASER Report 2021, in rural India, during the pandemic, only

a quarter of students could access online education. This, despite the fact that India has more than 500 million Internet subscribers.

Also, the availability of device is determined by socioeconomic status of child. A poor child is less likely to have a personal device. This inequality is further exacerbated in accessing paid courses offered by edtech companies. These are hugely expensive and limited to upper strata of the society.

Specially, in the field of preparation of competitive exams like JEE, NEET, it is still dominated by upper class, who can avail course, either online or offline.

This divide is also at the level of gender, ~~as~~ girls and women generally do not possess personal devices. Even if the family has devices, it is more possible that

it is used by the brother to play games than by sister to avail classes. This happens due to gender inequality and patriarchal culture seen within households.

Girls are also at disadvantage due to lack of digital literacy, as they are generally not equipped with knowledge to use technology. This puts them at a disadvantage vis-à-vis accessing edtech.

Also, the features in edtech like artificial intelligence are expensive and even if deployed, will create problems of accessibility. Accessing edtech is equally difficult for tribal children, as most of the content in edtech is present in English language, leading to an elitist bias.

Thus, though edtech has potential to fulfill the necessity of education, but in reality, it has made education a privilege,

especially in times of COVID when physical institutions are functioning on and off.

ENSURING EDUCATION FOR ALL

The problem lies not in ^{edtech} itself, but presence of socioeconomic ~~an~~ inequalities, which must be tackled to fulfill its promise. There is need to bridge the digital divide. Schemes like Digital India, National broadband mission, PM-WANI are expanding internet penetration, with greater focus on rural Areas.

Along with giving boost to internet penetration, there is need to provide devices to students. Corporate Responsibility funds can be mobilised to make tools like mobiles and computers accessible to students, as suggested by Parliamentary standing committee as well.

Also, other methods of edtech like TV Broadcasting should be given a boost. Under

SWAYAM PRABHA, already a separate channel for each class is provided.

Expansion of MOOC courses through SWAYAM (which provide courses from class 9th to post graduate) and NPTEL will go a long way in making available quality content for all the students.

Finally, there is also need for greater digital literacy and creation of more content online in local languages so that edtech could become accessible to all, in its best possible form.

"Education is a weapon which you can use to change the world" said Nelson Mandela. Today, edtech is giving us this opportunity to change the worlds of the likes of Rani and Kanita. We must grab it and bridge the divides to ensure quality education for our human resource.

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The youth need to be enabled to become job generators from job seekers

"Give a man a fish, and he is fed for the day, teach a man how to fish and he is fed for life" is a famous saying highlighting the need to become self-sustaining. This quote fits adequately in the Indian context, which houses the largest no. of young population in the world.

India is not only to be the most populous country, with around 50% of population < 25 years of age, it is also sitting on a huge demographic dividend. Not only the average age in India is one of the lowest, it also possesses great human potential that can transform the economy and society.

India adds 1 million new entrants to the work force every month. India produces

lacks of engineering graduates every year.
Therefore, there is huge demand for Jobs
for the youth. The young and aspirational
generation is looking for well paying, respectable
Jobs, which justifies their educational qualification.

Despite huge number of job seekers,
the unemployment rate in India is very
high. According to Periodic Labour force
survey by National statistical organisation,
unemployment rate was 4.8% in 2019-20,
which is huge for country like India.

Thus, India at one hand has to solve
the problem of unemployment. On the other
hand, it needs to reap benefits of its demographic
dividend. Both of these goals can be effectively
realised if the huge number of job seekers
can be enabled to become Job creators themselves.

Let's look into further reasons of why youth needs to become job creators, what are the major hurdles and how this cherished goal can be achieved in further segments.

JOB CREATION IS NEED OF DEMOGRAPHY

India presently is that stage of demographic transition, whereby it can boost its economy and raise the socioeconomic status of its people by boosting its human resources. Education and health are two major determinants of human resource development. But, skill development and employment are needed for better human resource management.

India aims to achieve the goal of ₹5 trillion economy by 2023-24. India also aims to gain its rightful position in the global geopolitics, not only as a regional powerhouse, but a global superpower.

Also, India needs to pull out around 200 million people out of poverty, who are still living in multidimensional poverty, according to UNDP's Multidimensional Poverty Index. This goal can be achieved through providing gainful employment to people.

India also needs to break off the middle income trap it is ~~stuck~~ stuck in, and improve in global indicators, like Human development index, Gender gap index, World Hunger index etc. The solution to all these issues point towards single goal - availability of quality employment opportunities for youth.

To provide this employment, there is need to make youth job creators, and not just job seekers. This is ~~because~~ because various sectors of our economy has not been able to create ^{desired} quality and quantity of job.

The agricultural sector is suffering from the problem of reduced gain or profitability and the issue of disguised unemployment. Despite a contribution of $\sim 20\%$ (2020-21) in the GDP, it supports 50% of Indian population. Also, the stagnancy in Agriculture is drifting youth away from agriculture. Presently, the average age of an Indian farmer is ~ 50 years.

The manufacturing sector has remained stagnant for past two decades, contributing $16-17\%$ to the GDP. Due to less share of manufacturing, enough number of jobs are not being created and a demographic shift is not happening from agriculture ~~and~~ to manufacturing sector.

Another problem of manufacturing is dominance of capital intensive industries, rather than labour intensive, which is the need in India. The complex Regulatory processes,

high logistics cost etc. reduce the competitiveness of indian exports, thereby hindering job creation and growth in manufacturing sector.

The service sector has seen considerable growth post liberalisation and its contribution to GDP has swelled to ~55%. However, in terms of employment creation, the growth is not commensurate.

The main reason for this is more focus on high end, less labour intensive sectors like information technology, banking, finance etc. The job creation is limited and that too for highly skilled. There has been less focus on low end service sector like tourism, healthcare, education, transportation etc. which has greater potential for job creation.

Thus, the inherent problems of various

sectors of Indian economy and the huge need to provide employment to youth points out to a single solution. The youth themselves, will have to find a way out, find opportunity in crisis and become job creators themselves.

The youth can become job creators if they adopt entrepreneurship as their career option. But, adopting entrepreneurship and becoming job creators is a difficult route to take, full with challenges.

THE CHALLENGES IN YOUTH BECOMING ENTREPRENEUR

One of the most impactful solution for solving economic problems is entrepreneurship. However, Indian youth lack the necessary skills to take up entrepreneurship. According to India Skills Report 2021, Around 53% of youth graduating from Indian colleges and

universities are not employable. Further, a mere 5% of population has achieved some kind of formal training in India, compare it to US, where 80% of population is formally trained.

^{lack of}
Along with skills, there is also the problem of lack of innovation in the economy in general and among youth, in particular.

This lack of innovation stems from the education system, which is mainly based on rote learning method. Innovation cannot be promoted in an education system where gaining high grades appears to be the end goal of education.

Apart from education sector, the social norms and values also in general do not promote innovation. Since Entrepreneurship

involves risk taking, many middle class parents are averse to their children wanting to start their startups. the middle class parent demand stable jobs, which kills entrepreneurship spirit.

Another problem of lack of diverse ideas in the field of entrepreneurship due to lack of inclusiveness. since women, tribal groups, transgenders etc. are excluded from taking up entrepreneurship, the innovation does not reach its maximum potential.

even if, there is ideas and innovation lack of funding and lack of enabling environment prevents youth from becoming job creators. Funding is difficult to achieve for small startups, especially in tier 2 and tier 3 cities. the banks are hesitant to lend due to NPA crisis & risk aversion. And startups from

smaller cities have relatively less access to global venture capitalists or angel investors.

Also, there is problem of diversification of finance. Finance is more accessible for startups working in technology sector, but ~~for~~ for startups in social sectors, funding remains a key concern.

And last, but not the least the complex regulatory mechanism and lack of ease of doing business harm the overall entrepreneurship culture. It is still difficult in India to open a business. Further, taxation processes, contract enforcement pose extra challenges.

Thus, the youth suffer not only from lack of capability, but also many external hurdles in their path to become net creators. These hurdles need to be removed for making India a 'country of entrepreneurs'.

Promoting the culture of Entrepreneurship

To make youth job creators, the beginning should be done at school level itself. The education system should focus more on teaching life skills than mere rote learning. The National Education Policy, 2020 has given importance in teaching 21st century skills to promote entrepreneurship. There is also need to introduce Vocational education from secondary level itself. Schools can also adopt 'Entrepreneurship curriculum' as done in Delhi government schools.

Apart from vocational & entrepreneurship training, there is need to give push to 'culture of innovation'. This can be done through investing more amount of money in research and technology. India spends a mere ~0.7% of GDP to R&D, which is too less. Culture of innovation can also be created by rewarding.

Innovation - like 'National Entrepreneurship Awards
and celebrating role models, especially young
entrepreneurs.

Further, Indian youth has huge
potential to create successful startups in various
fields like space, agriculture, defence, health etc.
An IIT Kanpur startup, which built a ventilator
from scratch during pandemic is excellent
example. The need is of government handholding,
support from industry, financial institutions etc.

There should be funding mechanism
for startups, especially in tier 2 and tier 3
cities. The government has already launched
a programme called 'STARTUP India' and
launched a fund of funds worth ₹10,000 crore
with SIDBI. There is need to expand it and
fund startups in diverse sectors. The establishment
of social stock exchange for funding startups

in social sector can be a game changer. Also, there should be regular competitions, events, Hackathons to connect youth with global angel investors.

scheme like 'standup india' and 'MUDRA' need to be expanded to promote entrepreneurship among SC, ST and women. Along with funds, these groups must also be given handholding support, market training, cluster based facilities etc. to become job creators in their own right.

Further, to promote entrepreneurship among tribal groups and converting tribal skills into successful ventures, TRIFED should promote training and provide adequate funding. schemes like 'Vandhan yojana' can transform our forest dwellers into skilled self sustaining entrepreneurs, giving jobs to others as well.

Apart from funding, the regulatory environment has to be made more start-up friendly. India has already achieved great strides in World bank's Ease of doing business Index. But some troubling ones, like opening a company, contract enforcement etc. must be resolved.

The government already provide tax benefits to startups & MSME sector. This should be accompanied with greater flexibility and enabling environment. Also, government should promote Industry-Academic linkage to make successful ventures right out of colleges.

"There is no greater enjoyment in life than being self dependent", it is said. Indian youth needs to rediscover the value of 'Economic Independence' by becoming Job creators. They must strive to become creators of new India rather than mere sectators.

Rough

The youth need to be enabled to become job generators
than job seekers

Why?

- 1 million added every month
- Agriculture overburdened
- manufacturing stagnant
- Technology education/engineering

Problems

What to do

- Skill trainee
- entrepreneurship curriculum
- NEP
- Role model
- Funding of startups

scheme

- startup India Fund & Funds

MUDRA

ASPIRE

SFURTI

USTAD

TRIFED

Why is their need

Why is there not

Problem

- Lack of skills
- Lack of innovation
↳ Role Learning
- Lack of Risk taking
- Lack of funding
- Lack of culture

women

SHG

- Kudamattam

Essay 1 Emphasis on edtech

- Navodaya Vidyalaya
- Kerala school story
- Why emphasis on edtech?
 - COVID
 - Far reaching } technology
 - convenience
- ~~from~~ from necessity to privilege
 - digital divide
 - Rural
 - Tribal
 - women
 - Skills teaching through online
 - in English language
 - ~~more~~ for edtech sector prepare for competitive exams
- Democratisation of Education
 - Benefits
 - Converge
 - foreign course, courses from IITs
 - Two way
- ways to make it more Accessible