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GENERAL STUDIES (TEST CODE :)

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Medium Eng./Hindi	ENG	Registration Number	143199
Center	HOME	Date	

INDEX TABLE

Q. No.	Maximum Marks	Marks Obtained
1	10	
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4	10	
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9	10	
10	10	
11	15	
12	15	
13	15	
14	15	
15	15	
16	15	
17	15	
18	15	
19	15	
20	15	

Total Marks Obtained:

Remarks:

INSTRUCTIONS

- Do furnish the appropriate details in the answer sheet (viz. Name, Registration Number and Test Code).
उत्तर पुस्तिका में सूचनाएं भरना आवश्यक है (नाम, प्रश्न-पत्र कोड, विद्यार्थी क्रमांक आदि)।
- There are TWENTY questions printed in ENGLISH & HINDI
इसमें बीस प्रश्न हैं अंग्रेजी और हिन्दी में छपे हैं।
- All questions are compulsory.
सभी प्रश्न अनिवार्य हैं।
- The number of marks carried by a question/part is indicated against it.
प्रत्येक प्रश्न/भाग के अंक उसके सामने दिए गए हैं।
- Answers must be written in the medium authorized in the Admission Certificate, which must be stated clearly on the cover of this Question-Cum-Answer (QCA) Booklet in the space provided. No marks will be given for answers written in medium other than the authorized one.
प्रश्नों के उत्तर उसी माध्यम में लिखे जाने चाहिए जिसका उल्लेख आपके प्रवेश पत्र में किया गया है और उस माध्यम का स्पष्ट उल्लेख प्रश्न-सह-उत्तर (क्यूसीए) पुस्तिका के मुख्य पृष्ठ पर अंकित निर्दिष्ट स्थान पर किया जाना चाहिए। उल्लिखित माध्यम के अतिरिक्त अन्य किसी माध्यम में लिए गए उत्तर पर कोई अंक नहीं मिलेंगे।
- Word limit in questions, if specified, should be adhered to.
प्रश्नों में शब्द सीमा, जहाँ विनिर्दिष्ट है, का अनुसरण किया जाना चाहिए।
- Any page or portion of the page left blank in the Question-Cum-Answer Booklet must be clearly struck off.
उत्तर पुस्तिका में खाली छोड़ा हुआ पृष्ठ या उसके अंश को स्पष्ट रूप से काटा जाना चाहिए।

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IS INDIA'S HIGHER EDUCATION SYSTEM FUTURE READY?

India is indeed a land of paradoxes.

These two stories prove so.

A young man, of West Bengal, who had nothing but his zeal of studying. He loved to ~~bicycle~~ ^{local state} his ways to his institutions. He ~~was~~ ^{is} famous today as Dr Amartya Sen - one of the very few nobel laureates to have his tertiary education indigenously.

The another story is of equally zealous girl. She was proud to be the 1st M.D from tribal Bhil Zadvi community.

In 2019 on a unfortunate day she committed suicide alleging caste discrimination. Her name, Ms Payal Gadvi, will probably find mentioning in few essays/articles. Soon she will be forgotten!

So what went really wrong? There are two heroes, one of which was failed by society and state both & the other is widely hailed. This prompts us to question — whether our tertiary education sector is future ready?

NEED OF A CHANGE

The Indian Gurukul system was famous world wide once. We had the best

universities of the names of Nalanda, Taxila, Odantapuri etc. The accounts of Chinese scholars - Hiuen Tsang have extensively quoted their role in making ^{the} of then great 'Golden age'. Its of no surprise then, that our educational climax, we were said to account for almost 20% of world's GDP.

The present educational system derives its cues from our history but has also been corrupted by a wave of mistaken modernization. In this context, all committees from Radhaswami committee of 1948 to latest J K Viswanathan recommend a systematic overhaul of our

tertiary education sector finetuned to
the needs of future society.

[ENVISAGING THE FUTURE]

The future beholds immense possibilities
provided we learn to assess the
path its likely to take.

India is a country of 1.4 b people.

Today the needⁿ to maximise ~~a~~ skills
of demography - producing more special-
ist and better generalists.

The education needs to tuned to the
4th industrial revolution. It needs
innovation, industrial collaboration
and related to overall national

progress. we need cheaper decentrali-
zed ^{state} universities for a better gross
enrolment ratio. The future also
threatens with mechanization and tends
to leave behind those who are not
paceful enough. The protectionist
wave needs opportunities for those
highly qualified (HIB visa issue) and
newer sectors eg start up to sustain
growth in face of global slowdown
with aim of 5t\$ economy till 2025.

~~RUN~~ INDIAN HIGHER EDUCATION:
MEETING SHOULDERS WITH GLOBAL

India has the ^{3rd} largest tertiary ed-

education sector in the world. Our
GER has improved to about 30%.

Our universities have expanded in
number with equal private contribution.

Indians find their name each year in
global competition eg Akshay Venkatesh
- recent Field medalist, multiple nobel
laureates, global corporates being headed
by Indian - Mr. Pichai, Mr. Nadella etc.
~~no~~. The extent of domination in US
silicon valley has been so, that it
has led to lobbying against a ^{liberal} ~~new~~
regime!

The number of patents filed in India
is 3rd highest. The proliferation of

state research education - CSIR, DRDO has helped in ^abooming innovation culture growing slowly. India has also contributed in sharing its accomplishments with South Asia by National Knowledge network.

Government has played its part by launching schemes like Atal innovation mission, Institute of eminence, to better research quality; AWSAR, OVDF, Ramalingaswami fellowship to use NRI/foreign capacities; IMPRINT for social engineering for India's current problems; ICCSR - for social sciences research; IP-Nani, TRIPS awareness for

Rakshagyan Shakti for a better IP culture;
Virtual Digital Library and schemes for
industrial academia collaboration; STARS,
SPARC and host of other schemes.

However it can be analysed that Indian
representation is still not proportionate
to its potential.

Considering the fact that France, a
country with a population of equal to
Uttar Pradesh, has 13 field medalists.
— doesn't give us the reason for
immense rejoice in Mr Venkatesh being
the 1st (albeit, also with foreign alma
mater!). It shows that though reforms
are present, ~~the~~ our system is
still not Future ready!

THE GLOOMIER SIDE

The future needs an evolving work-force but our current system is focused on getting a world TS rank; rote learning; and policy biased in favour of centralization. We have few universities — many of them dominated by costly private ones; & poorer state universities. University autonomy is a misused and very few deny micromanagement. The HR bill was effort for reforming this, however they have ^{been} cornered by few prime universities.

the industrial collaboration is poor.

due to absence of applied study.
The risk taking behaviour for entrepreneurship is still about 30% according to a survey. As a result, the start-ups fail only to futility of the ^{present} education system in business.

We blindly try to emulate western concepts not suitable to our 'developing' nation. The story of 'Newton' movie where a youth applies his innovation in managing elections in naxalite area still are fiction. The universities produce more of a factory of humanistic machines.
Non implementation of IP policy;

National skill mission leads to a further gloom. Plagiarism (recently in ISM, Dhanbad) is widely alleged. Complemented with fact that less than 1% of education GDP goes into research ~~and~~ mostly dominated by PSUs. The Thorat Committee also points to social disinvestment in higher education center eg AIIMS.

The lack of opportunities lead to 'brain drain' and absence of faculty in Indian institutes. ~~so~~ Humanities education is still for those who score less!

^{poor} Vocational education has led to lay off and an employment elasticity of 0.02.

The no of those in technical education is just 4% of all.

Based on this assessment we can say that future is likely to deny India its ^{golden} prospects. This workforce that this system will generate will be contrary to the idea of education of Einstein.

Education is what remains after we come out of schools.

IMPACTS

The current education system is likely to result in a static Indian future. The failure to incorporate technologies like Big data, ~~artificial~~ artificial

~~Intelligence~~ ^{Intelligence} is going to hit us in long term. ~~Our~~ economy will fail to develop into a job creator & will follow ~~the likes of~~ ^{be} a job taker leading to political stress. The social factor are likely to pull female labour force much low for 20%. The tolerance and harmony that higher knowledge brings will be missed. This will create an army of culturally unaware and misguided men.

RUNNING TWICE AS FAST

As Lewis Carroll said - to being at same level, we must run twice as

fast to catch up.

Reforms are needed in the primary education to create a base of receptive (ASER reports)

inquisitive & aware children. The attitude of taking up 'arts' if due to a poor score must be shunned. A counselling committee after 12th is the need of hour.

The Chinese model — to identify the strong points in lower standards and suitably develop should be followed.

For Private investment in researches needed. Degrees in newer areas eg. agricultural education, AI, Nanotech are promising steps. UGC chair for tribals and women universities also

with short committee implementation;
Accreditation to encourage good quality
of education; open journal publication;
encouraging institutional autonomy along
3 tier model of R TK Vishwanathan;
Start ups culture and refreeing technical
syllabus accordingly to it are some
steps for a future ready system.

Above all, the capacity of
man to think out of four walls
should be inculcated. The recent
ISRO - Vigyaan initiative to inculcate
scientific temper is appreciated.

India should resist going in
to stricter TRIPS policy ^{in WTO} and implement

FRIPS policy a better aware environment.
States should be incentivized for a
better enrolment & pupil teacher ratio.
Unified single window scholarship
portal and regulation of fees is the
need to attain true Art 21 - right
to education.

It's a dream ^{of New India} that we ^{move} ~~from~~ to
light from darkness.

Jamaso na Jyotirgamay.

Education is going to be the
light torch that will guide our
ways.

DATA IS THE OIL OF THE 21ST
CENTURY : THE RAW MATERIAL THAT
MODERN CIVILISATION ARE INCREASINGLY
BEING BUILT ON.

Imagine a world !

You wake up via a smart alarm
in morning. The water is ~~and~~ already
hot according to your preferences.

Your smart house knows you have
an early meeting today ! It adjusts
your daily routine accordingly. The
smart appliances coordinate to give
you ~~break~~ a toast, pressed clothes

and a ~~soothing~~ classical music.

This is the vision of a house with a cyber physical system — a network of appliances ~~connected~~ to think like you and serve you based on ~~your~~ ^a data set. I would have been laughed at if this vision was presented 30 years back. However, today its a ^{possible} reality. That's the power of data — it has forced ^{us} to ~~think~~ imagine about the unimaginable.

DELVING INTO THE CONCEPTS

Data is anything which gives information & Being well informed

is being knowledgeable. And know-
ledge is power. Thus data is an
asset that has been with us
since ages but its in the ^{4th} indus-
trial revolution era that we have
come to realize its potential.

DATA — OIL : THE STRIKING CONNECT

Much like oil, whose discovery in
the 1970s — fostered a revolution,
data promises to be the next oil.
much like oil, data holds the
power to transform the poor deserted
nations into a vision to behold.

much like oil, data makes the world closer with fast connectivity. It also serves as a fuel to modern machines and is today much more valuable than oil itself.

However, it also bears striking resemblances in the way oil is distributed unequally in the world. Data is today concentrated and effectively used by some conglomerates in the west.

much like oil, data also hurts of volatile and dependent nation. It can lead to a nation with 70000\$

per capita (GDP) yet poor woman
condition. It can lead to being
a hotbed of conflict like middle
east. The Arabic revolution shows
how unpredictable and dangerous
revolutions can be. This data-oil
connect is best seen by this example.

When ^{this} a revolution, ~~as~~ fostered
by data (via social media) erupted,
countries like Tunisia used it to
emerge into democracies and Syria—
into a nation torn by violence.
This exactly establishes the point that

data though revolutionary instrument like oil, depends on other parts of machine to serve us ^{apt} products for a the modern civilisation.

DATA : AN INFECTIOUS IDEA

A modern civilisation is envisioned by scholars as the supreme manifestation of culture. It is the combination of artefacts, sociofacts and mentifacts. The 'data' finds its applications in all sectors.

In the political field - the regionwise data analysis can be used to increase voter turnout. It can

be used by governments for a better service delivery. The digil app helps EC to detect moral conduct violation. The e-sanksha helps go G2G communication and ^{its} data used to strengthen governance.

In social field, the data can be used to target the most vulnerable. Its used to make matches without 'kundali' on matrimonial sites. Its used for giving a personalized education eg swayam prabha or strengthening the governance eg digishala which analyses the data feedback of parents. It also does this in health sector - via

National health portal - a platform integrated to give info about the health trends in the country and manage resources.

In the financial field - data platforms like SWIFT and RBI's central depository info - help detect financial frauds. Via a vision of government - National - Indiastack - it thinks of a world to give quick financial services to you.

In the private sector also, corporates are using data to earn revenue by personalized ads and selling according to the customer needs.

In the administrative field, the integrated command city control, the city is effectively governed via a coordination of smart grid, smart traffic and smart roads etc (data from new taxi aggregator platforms)

The cultural knowledge of biodiversity / IPRs are stored ~~on~~ using blockchain for long preservation. This data prevents copyrights violation. It can also result in a more culture closer and sensitive world.

This data has widespread application and it can be said to the extent — that data is not ^{just} oil — it will

be the air itself in future to come.

CIVIL IN THE CIVILISATION

A civilisation is also based on certain moral principles. And the data is sure to be used in antisocial ways. ~~For this~~ It can be used to influence elections, promote inequality, financial ^{data} hacking (phishing), promote fake news and aggravate the consumerist tendencies. ~~For this~~ its necessary for it to ~~use~~ the other parts to function well. The examples of Cambridge analytica and biases eg face detect app not detecting blacks in US

constantly push for taking other steps.

Analytics : the Churner

It's necessary to use data via analysis for its effective usage. ~~But~~ The use of technologies like big data and AI & blockchain needs to be applied for detecting trends and preventing duplication of resources.

Privacy : the safety valve

Legislation like GDPR and BN Srikrishna committee draft bill need to be put into place fast.

Equality : the balancer

The world's - tilt to data concent-

sation in west gives the problem of data sovereignty, jurisdiction and security issues. The G20 summit called for a taxes like GAFA tax of France, for equal distribution of revenues.

Furthermore balanced laws like CLOUD act is the need of the hour.

Man: the oil pressure

Without a stout moral compass and an aware mind, this data revolution is bound to spiral into chaos. And chaos is a ladder for the evil.

There call to spread the neutral scientific analysis about data. The TRAI has given guidelines for data

management.

THE INDIAN PROBLEMS

Data localization, enforced by RBI is a good way to ensure data security. However it must be accompanied by liberal regulation to foster private innovation.

Data infrastructure envisioned by Digital - NEMP program needs to be stepped up. The North east India can be an apt place - considering it has high ligtiacy and lower temperature.

The Economic Survey 18-19 also.

points to data monetization and its
being a source of revenue for the
weak finances' remedy.

new sectors and usages of the
use of data for policy compliance
eg immigration, Swacchta abhayan -
especially ^{more} in social engineering for
meeting the needs of ambition of
those deprived. It helps us in being
more humane than human.

~~That~~ Data depends on the modern
machine ^{and modern man}, for its luscious a modern
civilisation, that's why its hailed
as the new oil!