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GENERAL STUDIES (TEST CODE : 1440)

Name of Candidate	Abhinav chandhary		
Medium Eng./Hindi	ENG	Registration Number	11916
Center	DRN	Date	09/09/2019

INDEX TABLE

Q. No.	Maximum Marks	Marks Obtained
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17	15	
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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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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

1. Among various modes, trade played an important role in the spread of Indian culture abroad in the ancient period. Discuss. (150 words) 10

विविध साधनों के साथ-साथ, व्यापार ने भी प्राचीन काल में विदेशों में भारतीय संस्कृति के प्रसार में महत्वपूर्ण भूमिका निभाई है। चर्चा कीजिए।

India is one of the oldest-civilization in the world ~~wanted~~ that spread its cultural elements abroad through its various modes-

- ① Trade specially the 'ancient silk route'
- ② missionary activities such as under the mauryan rule Ashoka.
- ③ military expeditions such as those of the Cholas to south East Asia.

However, trade played an important role in the spread of Indian culture in ancient

India as-

- ① India lied on the 'ancient silk route' from China to Europe and Buddhism spread through this to part of central Asia, China.
- ② Trading relations between the three southern kingdoms, the Cholas, Cheras and the Pandyas,

with the Srivijaya and Shailendra empire took Indian culture to south east Asia. The largest Hindu temple complex is found in Cambodia as Angkor Thom.

- ③ Indian trading settlements were found as far as 'Canton' in China that spread Indian culture to China.
- ④ Trading relations with the Arabs and East Africa during the rule of the Cholas and the Rashtrakutas spread Indian culture to Africa and west Asia.

Thus, trade became one of the most important vehicle for the spread of Indian culture abroad.

2. Netaji Subhas Chandra Bose was a far-sighted realistic leader with great diplomatic and military skills. Discuss in the context of his contribution to national freedom struggle. (150 words) 10

नेताजी सुभाष चंद्र बोस उत्कृष्ट राजनयिक और सैन्य कौशल रखने वाले एक दूरदर्शी यथार्थवादी नेता थे। राष्ट्रीय स्वतंत्रता संघर्ष में उनके योगदान के संदर्भ में इस पर चर्चा कीजिए।

Netaji Subhash Chandra Bose arose in the
a rising socialist trend in national freedom
struggle in the 3rd decade of the 20th
Century.

He along with Jawahar Lal Nehru put forth
the demand for Purna Swaraj during the
Lahore session of the congress in 1929.

He was a far sighted realistic leader as:

① He called the withdrawal of the non-
cooperation movement as an 'Himalayan
blunder' and criticised Gandhi, to utilize
the energy of the masses during the period.

② He opposed the idea of not starting
a national movement during the 2nd world
war propounded by Gandhi on moral grounds

He had great diplomatic skills as :

- ① He escaped from India after the start of 2nd world war
- ② Through his diplomatic skills, he became the only leader to have met Hitler and considered it realistic to take help from Germany to overthrow the British Raj.

military skills

- ① He took over the charge of Indian national army and attacked the British.
- ② He captured the islands of Andaman and Nicobar and renamed them as 'shahid dwip and swaraj dwip'

Thus, Netaji Subhash Chandra Bose made significant contribution to the national freedom struggle.

3. Enumerate the factors responsible for the decline of Mughal empire in India. How did it help in the expansion and consolidation of British power?

(150 words) 10

भारत में मुगल साम्राज्य के पतन के लिए उत्तरदायी कारकों को सूचीबद्ध कीजिए। इसने ब्रिटिश शक्ति के विस्तार और सुदृढीकरण में किस प्रकार सहायता प्रदान की?

After the death of Aurangzeb in 1707 Mughal empire began to disintegrate.

Factors responsible for the decline:

- ① Weak rulers after Aurangzeb who failed to provide a strong central authority
- ② Regional governors asserted independence after the death of Aurangzeb.
- ③ Policies of Aurangzeb that destroyed the harmonious relations Mughals built with the Rajputs and other regional kingdoms
- ④ Declining trade that made the financial position of the Mughals very weak.
- ⑤ Foreign attacks by Afghans and Persians
Battle of Karnal → 1739
by Nadir Shah.

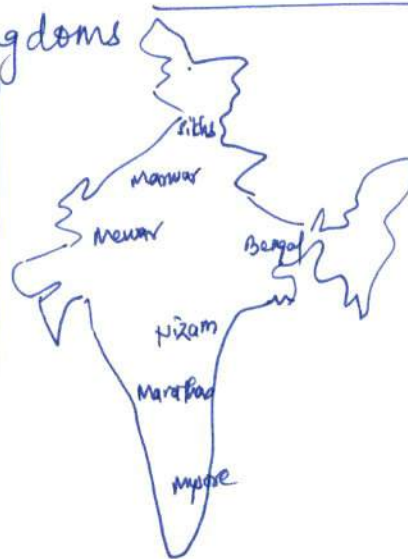


Fig. Regional Kingdoms after Mughal decline

It helped in the expansion and consolidation of British power as-

- ① British were able to defeat the weak Bengal ruler Siraj-ud-daulah in the battle of Plassey 1757.
- ② The Battle of Buxar 1764 and the treaty of Ahmadabad gave the British the political authority and the material resources to expand their empire beyond Bengal.
- ③ British interfered in the war of succession of Indian rulers and extracted territorial benefits out of it.

Thus, the decline of Mughals helped the British in the consolidation and expansion of their empire.

4. Though the conditions in France were vastly different from those in America, many of the driving factors behind the two revolutions were similar. Discuss in the context of French revolution. (150 words) 10

यद्यपि फ्रांस में परिस्थितियां अमेरिका की परिस्थितियों से बहुत भिन्न थीं, तथापि इन दो क्रांतियों के पीछे कई प्रेरक कारक समान थे। फ्रांसीसी क्रांति के संदर्भ में चर्चा कीजिए।

The American and the French revolutions occurred in quick succession of each other.

Though conditions in France were vastly different than America as -

① Feudalism in France was deeply entrenched in France than America.

② The French society was still predominantly orthodox catholic compared to the protestant culture in America.

③ However, the driving factors were similar as:

① oppressive rulers the Bourbon family in France and the British in America who denied people basic rights.

② Role of thinkers who propounded the ideas of liberty, equality and democracy.

for eg. Diderot, Voltaire, Montesquieu
inspired french revolution.

similar ideas of democratic rights were
propounded in America by Thomas Paine,
Benjamin Franklin and Henry Patrick.

- ③ Demands for greater democratic rights as
what the Philadelphia convention did in
America, the National Convention and the
Tennis hall meeting demanded in France.

Thus, despite vastly different conditions,
the driving forces were similar in American
and French revolution.

5. Globalization has been a significant force in shaping the contemporary education system in India in both positive and negative ways. Examine.

(150 words) 10

वैश्वीकरण, सकारात्मक और नकारात्मक दोनों प्रकार से भारत की समकालीन शिक्षा प्रणाली को आकार देने में एक महत्वपूर्ण शक्ति रहा है। परीक्षण कीजिए।

Globalization refers to the growing interrelations and interconnectedness around the world due to revolution in the ~~the~~ faster means of transport and communications.

It is shaping the contemporary education system significantly -

(positive ways)

① Rising trend of international schools boards (ICSE) and curriculum with mutual acceptance of qualifications.

② Use of technology and newer pedagogical methods in teaching. e.g. interactive learning methods

③ Demands for reduction in burden of books on children and focus on comprehensive learning e.g. continuous comprehensive Evaluation (CCE)

④ mutual student exchange programs and children going abroad for study.

Negative way

① one size fits all and imitation of international ~~tea~~ education courses.

eg. MBA degrees were imported from America

② Rising cost of education as international schools are unaffordable for most sections of Indian population.

③ over use of technology and increased burden on students has reduced the playful environment of the schools.

Thus, globalization has impacted the ~~school~~ education system in both positive and negative ways.

6. The lack of clarity over what constitutes an urban area encourages haphazard development pattern in India. Discuss. **(150 words) 10**

शहरी क्षेत्र का गठन करने वाले तत्वों के संबंध में स्पष्टता की कमी भारत में अनियोजित विकास प्रतिरूप को प्रोत्साहित करती है। चर्चा कीजिए।

According to the 2011 census, 31% of the population live in urban areas in India. And it is expected to increase upto 50% by 2050.

However, the lack of clarity over the definition of urban area encourages haphazard development. ~~as~~ for eg.

- ① Census definition of town differs from the statutory recognised towns

Census town

- ① population density > 400 persons/sq. km
- ② At least 75% engaged in non agriculture activities.
- ③ Population of more than 5000.

Thus, an area classified as census town may not be recognized as statutory town by the state government.

This results in haphazard growth as -

- ① Lack of integrated land use planning of city areas as well as areas in the periphery
- ② Lack of coordination between the civic authorities and village panchayat.
- ③ It results in urban sprawl and development of rural urban fringe in the urban periphery.

As a result the city grows in a haphazard manner affecting the quality of life of the people of both rural as well as urban area.

7. Regionalism need not be regarded as unhealthy unless it takes a militant, aggressive turn and encourages the growth of secessionist tendencies. Discuss. (150 words) 10

क्षेत्रवाद को तब तक हानिकारक नहीं माना जाना चाहिए जब तक कि यह उग्रवादी एवं आक्रामक रुख न अपनाए तथा अलगाववादी प्रवृत्तियों को बढ़ावा न दे। चर्चा कीजिए।

Regionalism refers to the ~~form~~ political movement ^{based on} for demand for greater political autonomy by the people in a region based on a distinct regional identity.

(It is not regarded as a unhealthy as)-

- ① It is part of natural democratic process and demands for power sharing
 - ② It helps in the recognition of the cultural diversity and thus strengthen national unity.
 - ③ It brings governance closer to the people and opens the path of power and politics to the people.
- for eg. regionalism based on ~~sepa~~ demantrate statehood for Telangana or the tribal states has strengthened ~~na~~ indian federal polity.

However if it takes a aggressive
turn then it creates a problem.

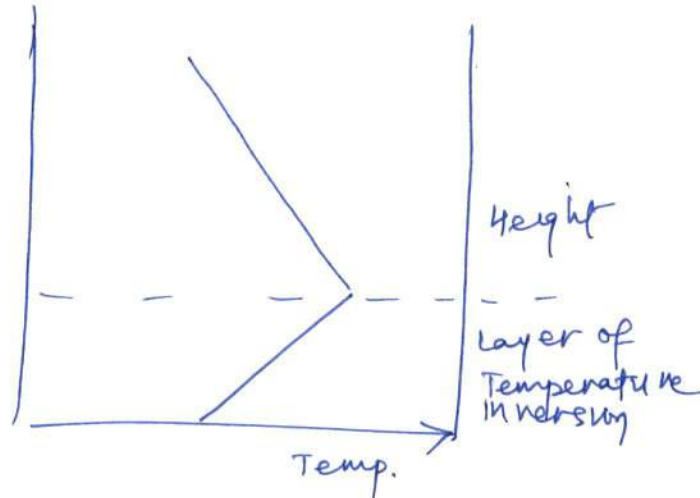
for eg. the regionalism in Kashmir for
secession from India or then in Nagaland
affects national unity and integrity.
It goes beyond the constitution.

Thus, it is imperative that demands
for regional autonomy are addressed in
a democratic manner in a time bound
process so that it does not lead to
secession.

8. Mention the conditions responsible for occurrence of Temperature Inversion in atmosphere. Elaborating on its various types, highlight its effects on the biosphere. (150 words) 10

वायुमंडल में तापमान व्युत्क्रमण की घटना हेतु उत्तरदायी परिस्थितियों का उल्लेख कीजिए। इसके विभिन्न प्रकारों का सविस्तार वर्णन करते हुए, इसके द्वारा जैवमंडल पर पड़ने वाले प्रभावों पर प्रकाश डालिए।

Temperature inversion refers to condition where the temperature increases with increases in height.



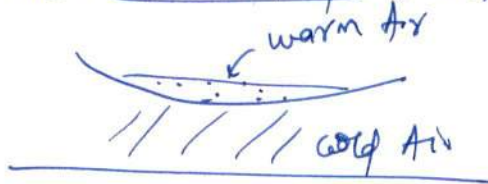
Conditions responsible for occurrence of temperature inversion

- ① long winter nights
- ② clear sky
- ③ during winters

There are various types of temperature

inversion

- ① frontal inversion : when the warm air mass
② is completely tossed above the cold air
mass in a occluded front



- ③ Radiational temperature inversion
during winters in night when the surface
becomes colder due to quick loss of heat.

- ④ Advectional inversion
when the ~~cold~~ ^{warm} air mass move over
a ~~warm~~ ^{cold} surface, the lower layers gets
cooled.



- ⑤ mountain temp inversion

Effect on biosphere

It affect the visibility in the morning
resulting in acidents and traffic jams

9. Assess the feasibility of introducing two time zones in India in the wake of recent proposal made by Council of Scientific and Industrial Research (CSIR). (150 words) 10

वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद (CSIR) के हालिया प्रस्ताव के आलोक में भारत में दो टाइम ज़ोन लागू करने की व्यवहार्यता का मूल्यांकन कीजिए।

The proposal of two time zones in India
can be assessed as one for the
Eastern and North eastern India and
the other for the rest of the country.

Positives

- ① It will help save electricity
- ② It will have health benefits for the North East people.
- ③ It will enable people in the North East save morning hours and increase leisure time in the evening.

Negatives

- ① It may promote separatist tendencies already prevalent in the North East.
- ② It will affect National unity and

integrity

way forward

The problem could be resolved if the people set their ~~time~~ time according to the national (standard) time in the North East.

i.e. If the people come to office by 12:00 local time than usual 10:00 am it will address the problem without having a separate time zone.

10. Discussing the reasons behind disappearance of springs, examine how springshed management can help revive springs, especially in the Himalayan region. **(150 words) 10**

झरनों के विलुप्त होने के पीछे निहित कारणों पर चर्चा करते हुए, परीक्षण कीजिए कि किस प्रकार स्प्रिंगशेड प्रबंधन झरनों, विशेषकर हिमालयी क्षेत्र में झरनों को पुनर्जीवित करने में सहायता कर सकता है।

11. India has a long civilizational history. In this context, highlight the significant contributions from ancient India in science, mathematics and medicine. (250 words) 15

भारत का सभ्यता संबंधी एक लंबा इतिहास रहा है। इस संदर्भ में, विज्ञान, गणित और चिकित्सा के क्षेत्र में प्राचीन भारत के महत्वपूर्ण योगदानों पर प्रकाश डालिए।

India is one of the oldest civilizations in the world. The Indus valley civilizations existed and interacted with the ancient civilizations of Mesopotamia and Egypt.

Thus, ^{Ancient} India made significant contributions in science, mathematics and medicine.

Science

① The Indus valley people developed the lost wax method of making ^{bronze} sculpture, which continues to this day. The dancing girl from the Mohenjodaro

② Aryabhatta in his treatise 'Aryabhatiya' gave the concept of rotation of earth on its axis and the planetary motion long before Europeans rediscovered it.

§

- ③ Varahmihira contributed the development of science and astrology
- ④ ~~was~~ Nagarjuna gave details of chemistry and is known as Indian alchemist.

Mathematics

- ⑤ Bharakacharya's 'Siddhant Shiromani' contained the famous part 'Lilawati' considered one of the first works in mathematics
- ⑥ Baudhayan's 'Sulvasutra' discussed Geometry and gave the Pythagoras theorem long before Europeans rediscovered it.
- ⑦ The discovery of 'zero' and the decimal system form the foundation of mathematics was given by Indians.

Medicines

- ⑧ 'Atharvaveda' considered as the first book on medicines gave details of the various ailments and their treatment.

9) Sushrut and his 'Sushrut Samhita' is considered as the pioneer of surgery.

10) Charak and 'Charak Samhita' is considered as the father of medicine.

Thus, Indians made significant contributions which make the foundation of the science, mathematics and medicine.

12. Over the years, the nationalist movement successfully created an ideology and culture of democracy and civil liberties that became a source of its strength. Discuss. (250 words) 15

समय के साथ, राष्ट्रवादी आंदोलन ने लोकतंत्र और नागरिक स्वतंत्रताओं की विचारधारा और संस्कृति का सफलतापूर्वक सृजन किया जो इसकी शक्ति का स्रोत बनीं। चर्चा कीजिए।

The nationalist movement arose as a result of the imperial and colonial subjugation of India by the British.

Britain which was known as the cradle of democracy denied the basic democratic rights to the Indians. Under its rule,

However, the nationalist movement through the demand for greater democratic rights and civil liberties snatched them from the British.

Created an ideology of democracy as:

① The moderates through their 'constitutional struggle' based on prayers and petitions raised the demand of 'no taxation without representation' and trained the people in the art of political work.

④ They demand 'swaraj' and worked to spread democratic ideas through press, literature and support for western education.

⑤ The reasoned economic critique of colonialism undermined the moral foundation of the Raj in the most democratic way.

Culture of democracy and civil liberties as:

① The Indian National Congress worked in the most democratic ways through its national sessions.

② The congress itself was 'coalition of ideas' and gave space and expression to each of them.

③ Gandhi made the national movement into a 'non-violent mass movement' that forms the bedrock of democracy and civil liberties.

④ The congress was itself organized on linguistic basis in its provinces.

It became its source of strength as /

① It trained people in the art of political work and enabled participation of each and every section of the population due to its non-violent methods.

② Its democratic way was able to bind people of different ideologies thus giving its strength.

Thus, the national movement rooted in its democratic fundamentals was able to drive away the largest and strongest colonial empire in the world.

13. Critically discuss the contribution of the Indian capitalist class in the freedom struggle. (250 words) 15

स्वतंत्रता संघर्ष में भारतीय पूँजीपति वर्ग के योगदान पर समालोचनात्मक चर्चा कीजिए।

The Indian capitalist class grew along with the late industrial revolution in the late 19th century though in a retarded manner due to colonial discrimination.

The capitalist class has been criticised for its role in freedom struggles -

- ① It did not support long drawn mass movement.
- ② It opposed the communist trend in the national movement as it threatened its own existence.
- ③ It was often criticised as having significant influence over the congress due to its funding support.

However, despite the criticism the Indian

Capitalist class made significant contribution
(to the freedom struggle as)-

- ① The Federal Indian Chamber of Commerce and Industry (FICCI) was established as a guardian of Indian commerce.
- ② It supported the congress with its material resources and supported the demands of the congress to end the discriminatory trade practices of the colonial regime.
- ③ Capitalist class supported Gandhi during the Ahmedabad mill strike and accepted to his demand for a hike in wages and plague bonus.
- ④ It demanded from the British, the protection of indigenous industries and development of capitalist goods industries which contributed to national development.

Thus, the Indian capitalist class which grew out of an independent capital base did not side with the interest of the British capitalist and supported the nationalist movements for its demand for self rule.

14. Equitable distribution of land plays an important role in bringing about socio-economic transformation. In this regard, analyse the progress of land reforms measures taken in India since independence. (250 words) 15

भूमि का न्यायसंगत वितरण सामाजिक-आर्थिक रूपांतरण लाने में एक महत्वपूर्ण भूमिका निभाता है। इस संबंध में, स्वतंत्रता के पश्चात् भारत में किए गए भूमि सुधार उपायों की प्रगति का विश्लेषण कीजिए।

Given the agrarian nature of Indian economy, equitable distribution of land is important to bring about socio-economic transformation

as -

- ① It enables an individual to earn a living in a dignified manner.
- ② Access to land would affect the hierarchical structure present in our rural areas based on ownership of land.

In order to ensure equitable land ownership

many (land reforms were undertaken in)

(India such as -)

- ① Abolition of Zamindari
- ② Tenancy reforms such as reduction of rent, security of tenure and conferment of ownership rights.

③ land ceiling legislations to distribute surplus land

④ land consolidation to benefit from the economies of scale and reduce cost of cultivation.

⑤ cooperative farming

Successes

① Abolition of zamindari system was largely completed in most states.

② 'Operation Barga' in west Bengal successfully implemented land ceiling legislation and conferment ownership rights on tenants.

③ Land reforms were also successful in the state of Kerala.

However, land reforms did not result in expected success and except zamindari abolition most of them had little impact on the ground.

Reasons

- ① lack of political will at the states and politically influential landed class.
- ② lack of proper land records
- ③ oral tenancy led to a large number of evictions.
- ④ lengthy judicial process undermined land reforms.
- ⑤ personal cultivation clause in land ceiling were misused.
- ⑥ Collusion between landlords and revenue officials.

Recently, the government is attempting at land reforms through -

- 1) National Land Records modernisation program.
- 2) land Tenancy law (Model)
- 3) land acquisition Act.

The success of these land reforms are crucial to ensure inclusive development in India.

15. State the factors that have influenced India's population growth trends. Also, enlist some measures taken by the government for attaining population stabilization. (250 words) 15

उन कारकों का वर्णन कीजिए जिन्होंने भारत की जनसंख्या वृद्धि की प्रवृत्ति को प्रभावित किया है। साथ ही, जनसंख्या स्थिरीकरण का लक्ष्य प्राप्त करने हेतु सरकार द्वारा उठाए गए कुछ कदमों को भी सूचीबद्ध कीजिए।

India is set to become the most populous country in the world surpassing China by 2022 according to United Nations development program.

However, ~~there~~ growth rate has definitely slowed down with India adding less in terms of absolute numbers over the previous decade

Census	1991	2001	2011
Decadal growth	25%	21%	17%

Reasons for the recent population growth trend

- ① Rising levels of education and delays in the age of marriage.
- ② Access to birth control measures and contraceptives.

- ⑤ Institutional deliveries that has reduced infant mortality rates which was one of the major causes of people having more children.
- ⑥ Rising levels of income and urban way of life that has raised the opportunity cost of having children.
- ⑦ Sustained campaign by the government to promote family planning program.
- ⑧ Increasing participation of women in the workforce and greater reproductive and health rights.
- ⑨ Increasing migration of workers from rural areas to urban areas specially male migrants.

Measures taken by the government:

- ① National family planning program and sustained awareness campaigns.

- ① National population Policy, 2000
- ② Janani Suraksha Yojna
- ③ PM matrn vandana Yojna.
- ④ Beti Bachao Beti Padhao Yojna.
- ⑤ Integrnated child development services by
women and child development ministry
- ⑥ Distribution of contraceptives and condoms
through Anganwadi workers

The result of the measures is that the total fertility rate in India has fallen to 2.18 according to NFHS-4 and 16 out of 29 states have achieved replacement levels of fertility.

The success needs to taken forward through a population policy based on regional priorities and addressing concerns of every section of the population.

16. Examine the contemporary trends and reasons for change in the traditional family structure in India. Discuss the reforms needed in the existing social security protection measures in this regard. (250 words) 15

भारत में परिवार की पारंपरिक संरचना में परिवर्तन की समकालीन प्रवृत्तियों और इसके कारणों का परीक्षण कीजिए। इस संबंध में वर्तमान सामाजिक सुरक्षा उपायों में आवश्यक सुधारों की चर्चा कीजिए।

family is one of the important pillars of Indian society. However, it is undergoing significant changes in recent times -

Contemporary trends

- ① Rise of nuclear households in rural areas as well.
- ② Joint families can also be seen in urban areas increasingly.
- ③ The patriarchal structure of the family is also undergoing change.
- ④ Rising old age homes as old age people increasingly do not live with their children.

Reasons for the change:

- ① Spread of urban way of life to the rural

areas

- ② Rising family disputes in rural areas over property due to limited availability of land
- ③ High cost of living in urban areas forces families to live together and share cost.
- ④ Increasing individualism that forces old age parents live in social care homes.
- ⑤ Increasing educational level of women and their financial independence helping them in asserting their rights
- ⑥ Joint families as often parents come live with their working children to care for their grandchildren.

Challenges in social security protection:

- ① Absence of old age homes and social security infrastructure
- ② Low penetration of insurance and pension schemes that forces people to depend on inadequate savings leading to financial dependence.

(measures that can be taken)

- ① development of old age homes and increasing public expenditure on them.
- ② passing the labour code of social security.
- ③ extending insurance ^{& pensioning} facilities to the workers in the unorganised sector.

④ way forward

The steps taken by the government such as the PM Vayoshree Samnanyojna, PM Vaya Vandana Yojna, PM Mandhan Yojna are steps in the right direction and should be implemented in letter and spirit.

17. Differentiate between eustatic and isostatic type of sea-level changes. Also, discuss the resultant landforms which are likely to be formed as a result of sea-level fluctuations. (250 words) 15

सुस्थितिक और समस्थितिक प्रकार के सागर तल परिवर्तनों के मध्य अंतर स्पष्ट कीजिए। साथ ही, सागर-तल के उतार-चढ़ाव के परिणामस्वरूप निर्मित होने वाली संभावित परिणामी भू-आकृतियों की भी चर्चा कीजिए।

Sea level changes refers to the rise or fall of the sea level.

Eustatic changes

① It is a result of the rise or fall of the water level in the seas. It can be result of -

- Ice ages and continental confinement of water
- Thermal expansion of the seas due to global warming
- Melting of polar ice caps

Isostatic change in sea level

① Isostatic changes in sea level are a result of the isostatic adjustment of the Earth's lithospheric plates where loading or unloading of the sea floor resulting in changes in sea level. It can be due to -

- Rise or subsidence of the land due to isostatic changes.
eg. the unloading of the polar ice shelves resulting in the rise of scandinavian highlands.

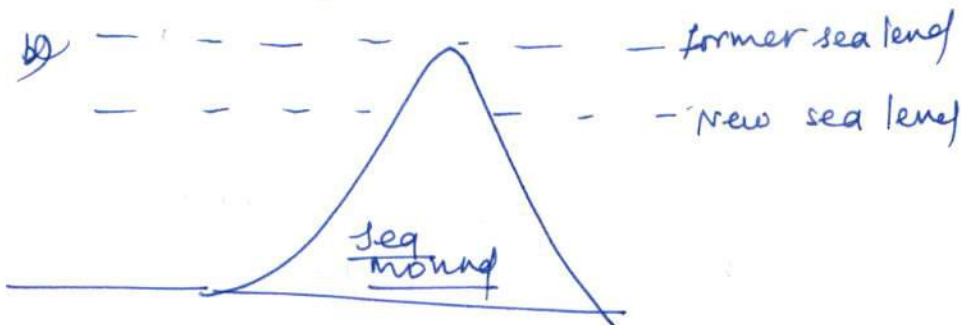


Fig. Isostatic adjustments

The landforms that can be formed due to sea level fluctuations -

① Positive changes that is fall in sea level

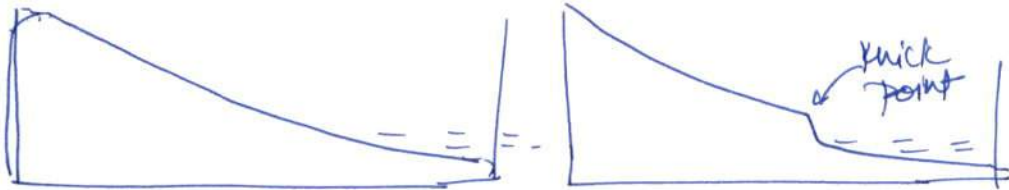
a) exposure of sea mounds



② fall in sea level results in increase in erosive capacity of the rivers. resulting in river rejuvenation

Associated land forms

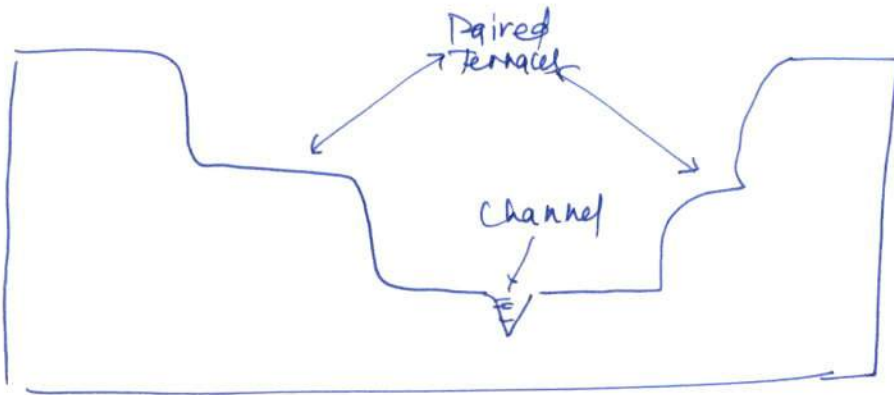
b) knick points



former longitudinal profile of the river

new longitudinal profile

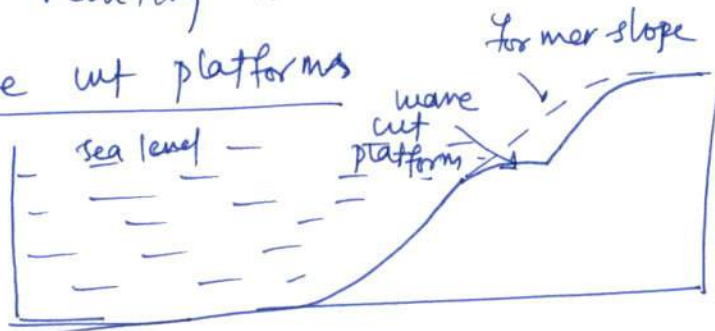
① paired terraces and valley in valley topography



② Rise in sea level

a) coastal erosion due to increased wave action resulting in

b) wave cut platforms



18. What are the forces that drive the movement of lithospheric plates? In this context, identify the different types of plate boundaries based on their nature of interaction with suitable examples of the characteristic features formed along them. **(250 words) 15**

स्थलमंडलीय प्लेटों को संचलित करने वाले बल कौन-से हैं? इस संदर्भ में, उनके किनारे निर्मित अभिलाक्षणिक विशेषताओं के उपयुक्त उदाहरणों के साथ उनकी अंतरक्रिया की प्रकृति पर आधारित विभिन्न प्रकार की प्लेट सीमाओं की पहचान कीजिए।

According to the plate tectonics, the Earth's lithosphere is divided into 7 major and some minor plates.

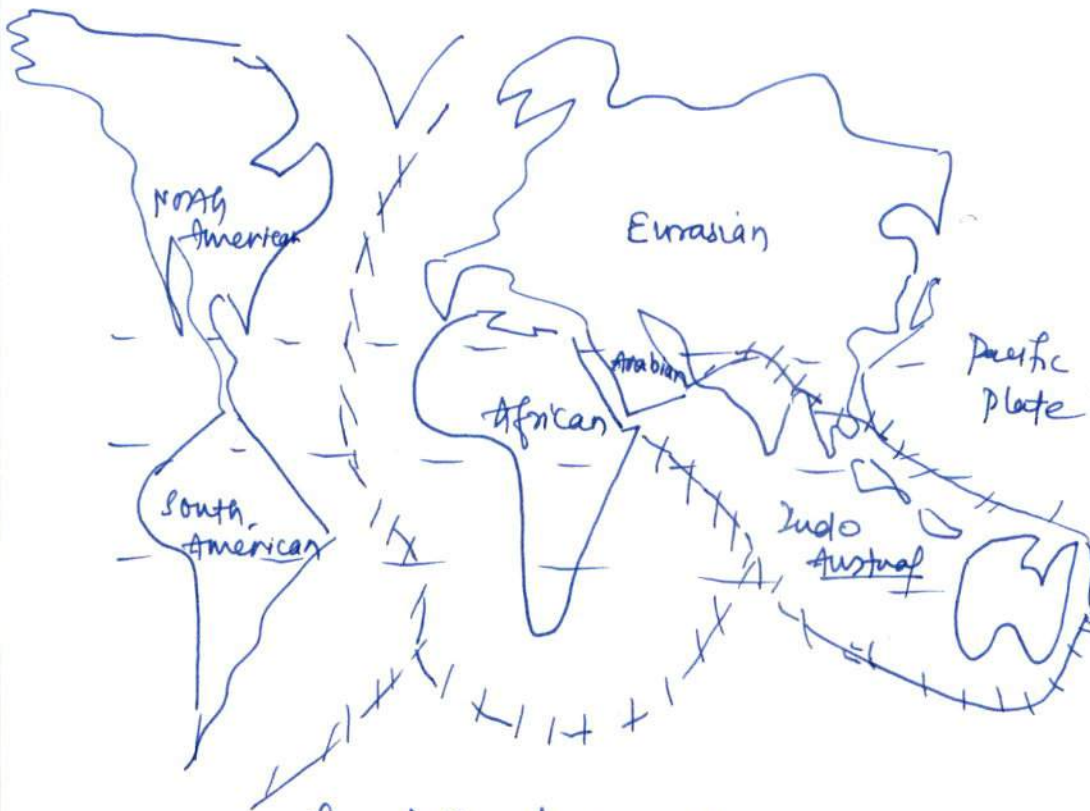


Fig. Lithospheric plates.

The lithospheric plates float over the asthenosphere.

resulting in various geophysical phenomenon
- on the earth surface

Forces Driving the plates:

According to plate tectonics theory, the driving forces behind plate motion are the Arthur Homes convection cells in the earth's mantle that results from the motion of molten mantle parts.

It is assisted by -

- ① The slab pull force as the oceanic slab subduct under the ocean.
- ② The ridge push force along the midoceanic ridges.

Different types of plate boundary interactions are

- ① Convergent boundary interaction when the the plate, moves against each other in opposite direction it can be -

<ol style="list-style-type: none"> ① ocean-ocean convergence ② ocean-continent convergence ③ continent convergence 	$\left\{ \begin{array}{l} \rightarrow \\ \rightarrow \\ \rightarrow \end{array} \right.$	<p style="text-align: center;"><u>Associated feature</u></p> <p style="text-align: center;">↑</p> <p>Trenches</p> <p>Island Arch</p> <p>Fold mountains</p>
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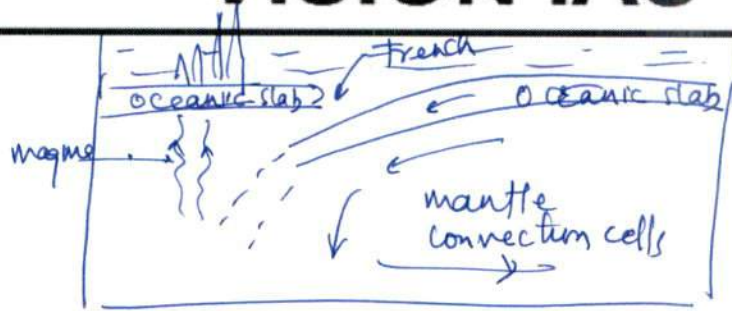


Fig. convergent boundary interaction

② Divergent boundary

when the plates move in opposite direction

to each other

It results in sea floor spreading process

forming the mid oceanic ridges.

eg. the mid Atlantic ridge

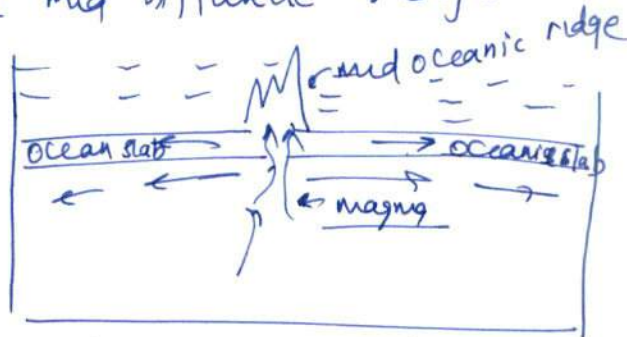


Fig - Divergent boundary

③ Transform boundary

when the plates slide past each other

eg faults → eg. San Andreas fault on west coast of America.

19. Highlight the factors responsible for location of automobile industries in India. Also, examine the challenges in the wake of transformations taking place in the automotive industry. (250 words) 15

भारत में ऑटोमोबाइल उद्योगों की अवस्थिति के लिए उत्तरदायी कारकों पर प्रकाश डालिए। साथ ही, ऑटोमोटिव उद्योग में हो रहे परिवर्तनों के आलोक में चुनौतियों का भी परीक्षण कीजिए।

Automobile sector is one of the largest manufacturing industry in India contributing around 12% of the manufacturing GDP.

Factors responsible for location

- ① Near the source of raw material i.e. iron and steel industry
eg. Jamshedpur
- ② Near ~~exp~~ ports as a number of them are export based
eg. Chennai
- ③ Near the market centres as India in itself is a large market
eg. Pune (Chakan)
- ④ Availability of skilled manpower
eg. Pithampur, Indore



- ⑤ Transportation network and availability of infrastructure
- ⑥ Government policy and support
eg. Samand

Transformations taking place in automotive

industry -

- ① move towards cleaner vehicles due to climate change commitments.
eg. the shift from BSIV to BS VI directly.
- ② Shift towards electric vehicles

challenges:

- ① Technology upgradation to make BSVI compliant engines
- ② Rise in the cost of the vehicle due to this.
- ③ fall in global demand of the automobile sector.
- ④ High rates of taxation

- ⑤ Securing battery technologies and source of lithium ion batteries.
- ⑥ Reducing dependence on foreign imports for batteries.
- ⑦ Falling economic growth and consumer demand.

The structural transformation in the automobile sector has resulted in a slowdown however, the efforts need to be sustained for a futuristic growth.

20. Identify the major Uranium reserves in the world and the countries from where India sources it. What measures are required to ensure supply security of fuel for nuclear plants in the country? **(250 words) 15**

विश्व के प्रमुख यूरेनियम भंडारों और उन देशों की पहचान कीजिए जहाँ से भारत इसका आयात करता है। देश में परमाणु संयंत्रों के लिए ईंधन आपूर्ति की सुरक्षा सुनिश्चित करने के लिए किन उपायों की आवश्यकता है?

Uranium forms the major fuel for the nuclear power plants operating in the country.



Major uranium reserves in the world are located in -

- ① Canada
- ② ~~Kazakhstan~~ Kazakhstan
- ③ Australia
- ④ Uzbekistan
- ⑤ United states of America

countries from where India sources uranium

- ① Canada
- ② Kazakhstan
- ③ USA
- ④ Australia
- ⑤ Uzbekistan

measures that can be taken to ensure security of fuel supply of uranium

- ① Taking steps to become part of the Nuclear Suppliers group (NSG)
- ② securing long term nuclear supply agreement
- ③ Developing fast breeder reactor in collaboration with Russia, USA
- ④ Exploiting the monazite sand to extract thorium, which can be used in the 2nd stage of our nuclear program.
- ⑤ Expediting the move to 2nd and 3rd stage of nuclear program to reduce foreign dependence for nuclear fuel.

- ⑥ Exploration and mining uranium resources in India.
- ⑦ Expediting the setting-up of the nuclear power plants by Westing house, the USA firm under Indo-US nuclear agreement.