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GENERAL STUDIES (TEST CODE : 757)

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Medium Hindi/Eng.	ENG	Registration Number	4092
Center	RN	Date	7/11/2016

INDEX TABLE		
Q. No.	Maximum Marks	Marks Obtained
1	12.5	
2	12.5	
3	12.5	
4	12.5	
5	12.5	
6	12.5	
7	12.5	
8	12.5	
9	12.5	
10	12.5	
11	12.5	
12	12.5	
13	12.5	
14	12.5	
15	12.5	
16	12.5	
17	12.5	
18	12.5	
19	12.5	
20	12.5	

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 HINDI and ENGLISH.
इसमें बीस प्रश्न हैं तथा हिन्दी और अंग्रेजी दोनों 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. 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.

2.

3.

4.

5.

6.

All the Best

Answer all the questions in NOT MORE THAN 200 WORDS each. Content of the answers is more important than its length. All questions carry equal marks.

12.5X20=250

1. Trace the evolution of cave architecture in India with special reference to their design, nature and wall paintings.

भारत में गुफा वास्तुकला के विकास का उसके डिजाइन, प्रकृति एवं भित्ति चित्रों के विशेष संदर्भ में विवरण प्रस्तुत कीजिए।

Cave architecture is believed to have begun in the 3rd century BC. The earliest caves were used as residences for Hindu, Jain and Buddhist monks. They were also places of worship.

Caves like Loma Pishi were provided by Ashoka for the Ajivika sect. During the Mauryan period these caves show imitation of carpentry which shows that art of building in stone was not fully developed.

After Mauryas the Satvahanas built caves in the western Deccan, for example Bhaja caves near Pune.

The caves later developed in size and splendour with elaborately carved verandahs and windows.

Ajanta caves is an example of cave complex that was formed because existing caves were too small for the inhabitants and new caves were carved nearby.

The Ellora cave is even more impressive with temple comprising of shrine, room, hall, gateway, pillars and divine figures.

The caves were of different nature. For example the Loma Rishi caves were excavated for Agriyika sect. Ellora caves has buddhist, Jain and brahmenical caves. Elephanta caves though originally Buddhist were later dominated by shivaites faith.

The painting in the cave are both secular and religious. The paintings in Kaimur range of central India are of wild animals, war processing, and hunting scenes. In Ajanta caves the paintings are exclusively Buddhist, mostly Jataka stories. Badami caves have the earliest Brahmenical paintings known so far.

2. With the help of examples, explain how Folk Paintings as an art form represent an array of human beliefs and cultural diversity.

विभिन्न उदाहरणों की सहायता से व्याख्या कीजिए कि कला के एक प्रारूप के तौर पर लोक चित्रकलाएँ कैसे मानवीय विश्वासों एवं सांस्कृतिक विविधता के एक प्रभावशाली प्रदर्शन को निरूपित करती हैं।

India has a number of folk painting style each representing its own belief, diversity and the rich cultural heritage. Some of the famous folk paintings are

Patachitra painting: It is one of the oldest art form of Orissa. It has many depictions including Jagannath, ten incarnations of Lord Vishnu and depiction of Lord Ganesha as a five headed deity.

Madhubani Paintings: Madhubani is a folk painting of Bihar mostly done by females of the household. Some of the popular illustration are of Hindu deities like Ram, Krishna, Shiva, Sun, Moon or nature and social events like wedding

Tanjore Art of Tamil Nadu: Theme mostly consist of Hindu gods and goddesses with Lord Krishna in various poses and depicting various stages of life.

Warli Painting : It is a painting style of Maharashtra. These paintings depict images of daily lives rather than deities.

Kalamkari Painting (Andhra Pradesh):

Kalamkari painting is used on sarees and ethnic clothing and depicts anything from flora to fauna to scenes from Ramayana and Mahabharata.

Kalighat painting (West Bengal):

These paintings on clothes and pottas first depicted gods and goddesses but later took a turn towards social reforms like abouting Zamindari or police reforms.

Phad Paintings (Rajasthan): It is mainly a religious form of scroll paintings depicting folk deities like Pabuji or Devnarayan.

~~Folk~~ painting reflects the art of story telling with each painting a work of narration giving us a glimpse of the part.

3. "The response to the Partition of Bengal was not a mere expression of Bengali sub-nationalism, but a resistance that carried in it the seeds of a coherent nationalist struggle for India's independence." Examine.

"बंगाल के विभाजन पर हुई अनुक्रिया केवल बंगाली उप-राष्ट्रीयता की अभिव्यक्ति नहीं थी, बल्कि एक ऐसा प्रतिरोध था जिसमें भारत की स्वतंत्रता हेतु सुसंगत राष्ट्रवादी संघर्ष के बीज निहित थे।" परीक्षण कीजिए।

Bengal was partitioned in 1905 by the then viceroy of India, Lord Curzon. The official reason given was that Bengal had become too large to be administered. However, the intent was to create a divide between Hindu and Muslims by carving out a muslim majority province of east Bengal with Dacca as its capital. It also wanted division along language by making bengali speaking people a minority in west Bengal.

The protest against the partition involved mass meetings, emphasis on Atma Sakhi and boycott of British goods. The movement also spread to other parts of the country like Poona and Bombay mainly led by Tilak.

The congress in its 1906 session in Calcutta declared that its goal was 'Swaraj' or self government.

The extremist section of the congress wanted to extend the swadeshi movement to the entire country and also

boycott government schools, colleges, legislative council. This was however not done.

The ~~movement~~ swadeshi movement was a turning point in the Indian freedom struggle because it brought within its fold the formerly untouched masses. Section of society like students, women, common people participated for the first time in such large numbers. It marked the beginning of mass politics in India.

There was creative use of festivals by Tilak who use Shivarji and Ganapati festival to mobilize people not just in Maharashtra but also in Bengal. Education was sought to be nationalized. The national education council was constituted.

The movement was not just confined to political sphere but included Art, literature, science and industry as well.

The experience gained during swadeshi movement in terms of mass mobilization helped in future movements like Non cooperation and civil disobedience.

4. The economic interpretation of British Colonialism by Indian intelligentsia during 1870-1905 brought forward unpleasant facts about the foreign rule. Analyse this statement and assess the impact of these interpretations on the National Movement.

भारतीय बुद्धिजीवियों द्वारा 1870-1905 के दौरान प्रस्तुत की गई ब्रिटिश उपनिवेशवाद की आर्थिक व्याख्या ने विदेशी शासन के संबंध में अप्रिय तथ्यों को प्रकट किया। इस कथन का विश्लेषण कीजिए और राष्ट्रीय आंदोलन पर इन व्याख्याओं के प्रभाव का आकलन कीजिए।

In the first half of the 19th century Indian nationalists ~~to~~ were optimistic about British rule in India and hope that it would modernize the country. Gradually that hope dwindle and the economic exploitation of India by British were exposed by nationalists like Dada-Bhai Naoroji, R.C. Dutt, Justice M.K. Ranade.

They highlighted the following

- Free trade with India was harming the domestic industry as they were facing an unequal competition with the west.
- India's traditional handicraft suffered a gradual decline
- The railway network was designed to suit British interest of sourcing raw material and selling imported finished product
- They criticized the pattern of taxation because the poor

peasants were taxed heavily and the British ~~bureaucrats~~ bureaucrats and capitalists were exempt

- They also criticized the heavy expenditure on military, police at the cost of welfare activities like health and education

- They propounded the 'Drain Theory' through which Indian wealth were transferred to Britain through means like salary, interest on loan, Dividend, Pension.

The impact of these ~~systems~~ theories and criticism were many

- It exposed the nature of the British rule in India and contradicted the claim that they were working for the benefit of the Indian people

- It shook the foundation of British rule in India

- It appealed to a large section of the population sowing seed for future national movement.

- It sowed the seeds of disaffection and disloyalty to the British government. This was one of the major reasons that period from 1870-1905 became period of unrest and mass agitation.

5. The role of women in Indian nationalism is well acknowledged, however, women who took part in armed struggle against the British are less known. In this context, examine the role played by Indian women in national movement with particular reference to revolutionary struggle.

भारतीय राष्ट्रवाद में महिलाओं की भूमिका को भली प्रकार से स्वीकार किया गया है, हालांकि अंग्रेजों के विरुद्ध सशस्त्र संघर्ष में भाग लेने वाली महिलाओं को पर्याप्त ख्याति नहीं मिली है। इस प्रसंग में, क्रांतिकारी संघर्ष के विशेष संदर्भ में राष्ट्रीय आंदोलन में भारतीय महिलाओं की भूमिका का परीक्षण कीजिए।

Ans

The Indian women played a key role in the national movement right from the first revolt of 1857. However, this participation gradually increased over time to reach its peak at the time of Independence.

- In the 1857 revolt women like Rani Laxmibai and Begum Hazrat mahal bravely fought the British
- They ~~were~~ played a key role in congress, with Kadambini Ganguly addressing a session of congress and Sarojini Naidu elected as its President
- Women were involved in mass movements and participated actively in Swadeshi, Non cooperation and civil disobedience movement
- Bhikaji Kama founded Paris India Society and published revolutionary literature
- Kasturba Gandhi and Sarojini Naidu led the Dhasana satyagrah

In Revolutionary activities women were no less compared to the men.

- Young women formed secret Societies. For example Chhatri Sangha started by Kalyani Das developed close contacts with revolutionary activists.
- In the Chittagong armory raid by Surya Sen young girls like Kalpana Datta and Pritilata Waddedai played key role.
- Bimal Pratihya was organizer of Nari Sangharsha Samiti and organized political decoy.
- Bina Das tried to assassinate Governor of Bengal in Calcutta University.
- Usha Mehta ran a secret radio station to spread nationalist message.

Thus women played a key role in national struggle as well as revolutionary activity despite the many murders of a patriarchal society.

These difficulties were overcome by individual efforts of women as well as collective effort of society.

6. It has been argued that unlike the wars in 1962 and 1971, the war in 1965 was indecisive and brought neither victory nor peace to India. Critically analyse the proposition and also highlight how the experience of 1965 was helpful in the war of 1971.

यह तर्क दिया गया है कि 1962 और 1971 के युद्धों के विपरीत 1965 का युद्ध अनिर्णायक था और इसने भारत को न तो विजय प्रदान की और न ही शांति। इस तर्क का समीक्षात्मक विश्लेषण कीजिए और इस तथ्य पर भी प्रकाश डालिए कि 1965 का अनुभव 1971 के युद्ध में किस प्रकार सहायक रहा।

The 1965 war was preceded by the 1962 war with China and followed by the 1971 war to liberate Bangladesh.

Many military historians believe that the war was indecisive because of the following reasons

- Both the countries returned to their pre 1965 territorial positions post signing the Tashkent agreement.
- There was no decisive outcome on Jammu and Kashmir and the relations between two countries didn't improve as there was another war in 1971.

However, there are also arguments that the relative loss of Pakistan Army was higher than that of India

- Pakistan lost over 450 tanks compared to India's loss of less than 100.
- Operation Gibraltar failed to ignite Kashmir and Operation Grand Slam was thwarted by Indian forces.

The most important aspect however was that the experience helped India immensely in the 1971 war.

- In 1965 commanders were new in handling brigades and division sized forces in battles; the experience helped in consolidating leadership
 - There were significant changes in the relationship between political leaders and military chiefs
 - Strengths and weaknesses of the army units were understood and worked upon. The focus on joint warfare and improved coordination between the Army, Navy and Airforce played crucial role in 1971 victory
 - The role of Technology was carefully built into military doctrines
 - It gave experience to the political leadership in dealing with major powers to safeguard India's strategic interest
 - India also signed a treaty with Soviet Union for defence cooperation
- Thus the experience of 1965 played a key role in the 1971 victory.

7. Discuss whether the agrarian movements which emerged from the late 1970's should be referred to as 'New' Farmers' Movements. In light of the problems faced by poor farmers and agricultural labourers, critically evaluate these movements.

चर्चा कीजिए कि क्या 1970 के दशक के उत्तरार्द्ध में उभरे कृषि प्रधान आंदोलनों को 'नवीन' किसान आंदोलनों के रूप में संदर्भित किया जाना चाहिए। निर्धन किसानों एवं खेतिहर मजदूरों द्वारा सामना की जाने वाली समस्याओं के प्रकाश में इन आंदोलनों का आलोचनात्मक मूल्यांकन कीजिए।

8. Though both Bismarck and Sardar Patel played an important role in unifying their respective countries, yet given the different historical circumstances, the challenges faced by both and the strategies they adopted were different, Discuss.

यद्यपि बिस्मार्क और सरदार पटेल दोनों ने अपने-अपने देशों को एकीकृत करने में एक महत्वपूर्ण भूमिका निभाई है, फिर भी विभिन्न ऐतिहासिक परिस्थितियों को देखते हुए यह कहा जा सकता है कि दोनों को जिन चुनौतियों का सामना करना पड़ा और जिन रणनीतियों को उन्होंने अपनाया, वे भिन्न थीं। चर्चा कीजिए।

Bismarck, German military general and foreign minister of Prussia was responsible for unifying Germany in 1871 and laid the foundation of the modern German state. Sardar Patel, the first deputy Prime Minister of India, carried out the task of unifying various Indian princely states with the union of India in 1947.

Their tasks differed in many aspects

- Bismarck had to unite 26 states to form German federation whereas Patel had to unify around 565 princely states
- While Bismarck had to unite mainly German speaking areas, Patel had to unite region with multiple languages
- Patel also had to deal with the religious and cultural diversity, whereas Bismarck didn't face this hurdle in such proportion.

Given the difference in circumstances the approach adopted were different.

- Bismark first tried diplomacy in 1948 but failed. From then he followed the policy of blood and iron which involved many wars to achieve its purpose. Patel on the other hand, used diplomacy, except in case of Hyderabad where he used intimidation of army.
- Patel followed democratic principles of Plebiscite for princely states like Junagadh to decide whether they would join India. Bismark didn't use any such democratic principles.
- The time taken by Bismark was much longer compared to Patel who just took two years.

The unified Germany under Bismark was a federation of monarchs whereas unified India was a democracy with fundamental rights.

9. Enumerate the reforms undertaken during the Gorbachev era and explain the reasons for undertaking these. To what extent could these reforms be held responsible for the breakup of the Soviet Union?

गोर्बाचेव के कार्यकाल के दौरान किए गए सुधारों को वर्णित कीजिए और इन्हें आरंभ करने के कारणों की व्याख्या कीजिए। सोवियत संघ के विघटन के लिए इन सुधारों को किस सीमा तक जिम्मेदार ठहराया जा सकता है?

Upon assuming office in 1985, Gorbachev found that Soviet Union was facing shortage due to inefficiency and wastage. The USSR citizens had much poor standard of living compared to USA.

Gorbachev initiated changes to bring individual freedom, ~~peace~~ and bureaucratic transparency, and stimulate economic change.

Glasnost - It was a set of policies in the late 1980s to

- Make the government of USSR more transparent
- Increase accessibility to the affairs of the government
- Ease censorship laws

It allowed greater freedom to the people of the Soviet. Restrictions on press and media were also lightened.

Perestroika (restructuring)

Under Perestroika Gorbachev

Implemented political reform and introduced elements of free market economies. For eg: There were multiple candidates elections within the communist party.

In addition to these steps under, what was referred to as Sinatra doctrine, East European governments were allowed to be more autonomous and self governing. It ended the unity in socialism that the Soviet states shared.

However, once the reforms started it became very difficult to control it. These eventually led to the dissolution of USSR. In 1989 communist regimes fell in Poland, Hungary, East Germany, Czechoslovakia, Bulgaria and Romania. By the end of that year Berlin wall was dismantled and it resulted in unification of Germany in 1990.

Even though Gorbachev was committed to socialism and maintain integrity of USSR, the reform process led to an avalanche that disintegrated USSR.

10. While the impact of French Revolution was largely limited to the European countries, the Russian Revolution had a much wider impact across the globe. Critically analyse.

यद्यपि फ्रांसीसी क्रांति का प्रभाव काफी हद तक यूरोपीय देशों तक सीमित था, किन्तु रूसी क्रांति का विश्वव्यापी प्रभाव हुआ था। आलोचनात्मक विश्लेषण कीजिए।

The French revolution was ~~an~~ period of social, political and ideological upheaval in the history of France and Europe as a whole. It marked the end of Feudalism in Europe and the seed of democracy, equality and fraternity ~~where~~ so were sown.

- It directly led to the ~~formation of~~ evolution of nation states in Europe
- It contributed to the culmination of militarization in Europe
- The success of Napoleon led to dictatorship and personality cult in Europe and later Europe saw the emergence of Bismarck.

The Russian revolution consisted of the first revolution in February that overthrew the Tsar and the second Bolshevik revolution in October.

the impact of Russian Revolution were

- Russians withdrew from the first world war and this affected the course of the war.
- Bolshevik leader Lenin promoted communist international in hope of bringing similar revolution in

other parts of Europe and the world

- The first communist international in 1919 ~~and~~ was followed by establishment of communist parties in India and China.
- It later led to the division of the world into two ideological blocks and eventually the cold war.
- It inspired decolonization and freedom movements across Asia and Africa.
- The model of planned economy established by Soviet Union was adopted by other nations including India.
- It influenced peasant and labour movements.

However it is not correct to say that the impact of French revolution was limited to Europe only. The democratic values such as liberty, equality, fraternity influenced political thinking across the globe and even the Indian constitution adopted them.

11. Give an account of the factors which influence gender equality in basic education. What can be done to bridge the existing gender gap in this context?

उन कारकों का विवरण प्रस्तुत कीजिए जो आधारभूत शिक्षा में लैंगिक समानता को प्रभावित करते हैं। इस संदर्भ में विद्यमान लिंग अंतराल को समाप्त के लिए क्या किया जा सकता है।

The factors which influence gender equality in basic education are

- Economic disparities : Generally poor households have poor record of girls going to school
- Social conditions : Girls from an early age share burden of household chores and this affects their ability to go to school
- Distance norms : Girls are generally not allowed to go too far from home to attend school
- cultural beliefs : Issues like early marriage affect the ability of girls to go to school
- Regional characteristics : Issues like lack of school in rural areas also affect the equality
- Infrastructure - Infrastructure issues like lack of toilet in schools also prevent girls from going to school

The following measures can be undertaken

- Targeting the regions, communities that have the poorest performance in terms of gender equality can help drastically improve outcome
- The infrastructure in school needs to be upgraded to make them gender neutral. ~~But~~ constructing girls toilet has been at the forefront of government strategy in this regard
- Incentives should be designed as per local needs. For example in Bihar providing free cycles led to significant improvement in girls enrolment
- Implementation schemes like SABALA effectively
- ~~Import~~ Increasing the number of women teachers can help boost equality
- Using technology to target the worst performing areas like Digital Gender Atlas by UNESCO
- Effective implementation of government schemes like Beti Bacho Beti Padhao' and Sukanya Samriddhi Yojna.

12. While state action alone cannot ensure social change, no social group howsoever weak or oppressed is only a victim. Examine the statement in the context of organised action for justice and dignity for manual scavengers in India.

कोई सरकारी कार्यवाही अकेले ही सामाजिक परिवर्तन नहीं ला सकती, कोई भी सामाजिक समूह चाहे भले ही वह कितना भी कमजोर और सताया हुआ हो, सिर्फ अत्याचारों का शिकार ही नहीं होता है। भारत में मैला ढोने वालों को न्याय और आत्मसम्मान दिलाने हेतु एक संगठित कार्रवाई के संदर्भ में इस कथन का परीक्षण कीजिए।

Manual scavenging has been prevalent in India for a long time and most of the people engaged in it belong to the Scheduled caste and the poorest and the disadvantaged communities.

The government has taken several steps to improve their condition

- In 1993 government banned employment of people as manual scavengers
- In 2013 the parliament passed the 'Prohibition of employment as manual scavenger and their rehabilitation' Act.
- The government has been encouraging septic tanks through Swachh Bharat mission.

However the government steps have not yielded adequate results

- The practice still persists. According to census 2011 there were 8 lakhs of dry latrines in the country

- 2014 Human rights watch reports that manual scavenging still persists in the country

- The people who were working as manual scavengers in the past have not been rehabilitated. This sometimes leads to a situation where they revert to manual scavenging

The society has also taken a few steps to complement government effort

- Activist Bezwada Wilson found the Safai Karmchari Andolan in 1994 to campaign for demolition of dry latrines and abolition of manual scavenging

- In March 2012 national public hearing on 'Rehabilitation of manual scavenging and their children in India' was held to highlight the issue

- In Dec '12 two month long 'mukt yatra' crossed 18 Indian states and liberated thousand of Dalit ~~stems~~ scavengers

The manual scavenging abolition needs efforts from all stakeholders Government, civil society, rights bodies to be successful.

13. Give an account of the factors driving people to migrate from the countryside to urban areas even if it entails living in slums. Highlight some important facts about slums unique to India. Also discuss some strategies which can be adopted for transforming India's slums.

उन कारकों का विवरण प्रस्तुत कीजिए जो लोगों को ग्रामीण इलाकों से शहरी क्षेत्रों में प्रवास करने लिए प्रेरित करते हैं, भले ही इसके परिणामस्वरूप उन्हें मलिन बस्तियों में ही क्यों न रहना पड़ता हो। भारत की मलिन बस्तियों के संदर्भ में विशिष्ट तथ्यों पर प्रकाश डालिए। साथ ही उन रणनीतियों की चर्चा कीजिए जो भारत में मलिन बस्तियों की दशा को सुधारने के लिए अपनाई जा सकती हैं।

The reasons for the migration of people to urban areas ~~if~~ even if it means living in slums are the following

- Employment opportunities : The urban areas provide employment as most economic activities happen in these areas.
- Distress in Agricultural sector : The agricultural sector is facing severe issues with farmers not being able to generate income sufficient for livelihood. This results in migration to urban areas.
- Social mobility for next generation : The urban areas offer opportunities for education and possibility for higher incomes in future.

The high cost of living in urban areas doesn't give any other alternatives to migrants, hence they live in slums.

Some of the facts about slums are

- The population living in slums is huge. By 2017 it is estimated that 100 million people will be living in slums.
- The slum population exercises significant political clout because they can vote in election.
- There is no way to spread the growth of slums as civic bodies face lot of political hurdles.

The following strategies can be undertaken to transform slums

- A more balanced regional growth should be planned so that there are more employment opportunities in small towns and rural areas. This is called the counter magnet strategy.
- Economic growth will result in better standard of life.
- The slums should be redeveloped to provide them basic infra like water, sanitation, sewage.

These steps need to be taken immediately as the problem is becoming severe day by day.

14. Define flood plains and explain their significance. Also, examine how anthropogenic activities have contributed to recent instances of urban flooding.

बाढ़ के मैदानों को परिभाषित कीजिए और उनके महत्व की व्याख्या कीजिए। साथ ही, परीक्षण कीजिए कि शहरी बाढ़ की हाल ही की घटनाओं में मानवीय गतिविधियों ने किस प्रकार योगदान दिया है।

Flood plain is an area adjacent to a stream or a river that stretches from the banks of its channel to the base of enclosing valley walls.

The significance of flood plains are

- They are highly fertile due to the alluvial deposits of the river and very good for agriculture
- They protect from floods by reducing providing buffer for the flood water to rise
- The flood plains act as natural filters and purify water
- The flood plain help in recharging aquifers
- Floodplains are home to a wide variety of flora and fauna
- Floodplains provide avenue for recreational activities like fishing, hunting.

Urban flooding refers to sudden rise in water level in the city after a short period of intense rainfall.

Some of the anthropological factors that contribute to urban flooding are described below

- Unplanned Urbanization: cities grow all around without any consideration for flow of water. Also the paving of roads leads to very slow seeping of water leading to flash floods
- Disruption of natural flow: The natural flow of rivers and streams are often disrupted due to encroachment and construction activities. This leads to flooding
- Deforestation: Deforestation disrupts the entire balance in the ecosystem and urban flooding is one of the outcome
- Loss of wetland: The small lakes, natural drainage channels are increasingly destroyed by public and private bodies. They serve as buffers during heavy rainfall
- city drainage systems: Poor management of city sewerage and drainage also contributes to flooding

15. Why do forest fires occur frequently in certain regions of India? Examine the ecological significance of forest fires and identify the measures to tackle the phenomenon.

भारत के कुछ क्षेत्रों में दावानल की पुनरावृत्ति के क्या कारण हैं। दावानल के पारिस्थितिक महत्व का परीक्षण कीजिए और इस परिघटना से निपटने के लिए उपायों की पहचान कीजिए।

Forest fires is one of the major reasons for degradation of Indian forests. According to forest survey of India around 50% of the forest in India is fire prone and 6% are prone to severe fire damage.

The major reasons for forest fires are listed below

- the coniferous forests comprising of fir, spruce and pine has needle shaped leaves when they fall they dry and become inflammable
- low pre-monsoon rainfall causes very little soil moisture, increasing temperature added with dry leaves and twigs makes forest vulnerable
- In terai region honey collectors start fire to drive away honey bees. This causes forest fire
- sometimes forest fire are started for foul intentions by wood contractors so that they can get wood from otherwise prohibited area.

The ecological significance of forest fire is listed below

- Forest fire help many tree species to germinate their seeds.
- Forest fire return important nutrients to forest soil that was previously being stored in biomass
- wildfires help to clear dead wood and other material that would have otherwise taken much longer time

The following measures needs to be taken to prevent forest fires

- Buffers or ~~fire~~ 'fire lines' should be maintained to prevent spreading of fire
- Modern technologies like Satellites should be used to early detect forest fires and send warning
- The community driven approach led by Panchayats needs to be adopted
- Forest fires should be a part of national level forest policy

16. What are the different types of rainfall? Give an account of the world distribution of rainfall.

वर्षा के विभिन्न प्रकार क्या हैं? विश्व भर में वर्षा के वितरण का विवरण प्रस्तुत कीजिए।

The different types of rainfall are

- convection Rain : when air is heated it becomes light and rises. As it rises it expands and cools and consequently condensation takes place and cumulus clouds are formed. This rainfall is common in equatorial region

- orographic rain - when saturated air comes across a mountain it is forced to ascend. As it rises it expands, cool, condenses and finally falls as rain. The rain is received mostly on the windward side because air loses most of its moisture before reaching leeward side

- Cyclonic rain: Such rain is associated with violent storms that originate over oceans in tropical areas and move to west bringing heavy rainfall and violent winds.

The following trends can be noticed about world distribution of rainfall

- most of the precipitation is received in the equatorial region. The rainfall goes not decreasing as one move towards the poles
- coastal areas receive more rainfall than continent interior
- The subtropical region receive more rainfall on the eastern coast ~~and~~ due to trade winds and goes on decreasing towards western coast
- In ~~the~~ the region between tropic and $65^\circ N + S$ ~~the~~ most of the rainfall is received on western coast due to westerlies and goes on decreasing as one moves east
- windward side receive more rainfall than leeward side
- coasts with cold current flowing besides them receive very little rainfall as there is subsidence of air. They are often deserts.

17. The prevailing water crisis in the country is not about the unavailability of water rather the mismanagement of available resources. Do you agree? Discuss the short-term and long-term socio-economic impacts of the water crisis on India.

देश में व्याप्त जल संकट का संबंध जल की अनुपलब्धता से नहीं बल्कि उपलब्ध संसाधनों के कुप्रबंधन से है। क्या आप इससे सहमत हैं? भारत पर जल संकट के अल्पकालिक और दीर्घकालिक सामाजिक-आर्थिक प्रभावों की चर्चा कीजिए।

India accounts for 4% of the world's water resources and about 16 percent of the population. The per capita availability has declined from 1816 cu. met. in 2001 to 1545 cu. met in 2011. The reasons for poor availability of water are

- Agriculture: Agriculture is one of the largest consumer of water. This is also encouraged by government policies which encourage growing of water guzzling crops like Sugarcane
- Industry: Industry is often responsible for exploitation of ground water and other resources. Industries like thermal power plants and soft drink manufacturing consume huge quantity of water
- Pollution: Pollution of water bodies by factory discharge, agricultural runoff has rendered a huge quantity of water unusable

- Free of cost : water is available in our country at highly subsidised rates or free thus encouraging misuse
- Lack of water harvesting structures
Monsoon in India is very erratic and unevenly distributed spatially and geographically. Thus water harvesting structure is a must to store water for times of shortage. Thus it seems that proper management of water will definitely help in improving availability.

Socio economic impact of water crisis Short term

- Food production will be impacted, leading to sharp inflation
- It will increase the distress in the already stressed agriculture sector
- It will encourage rent seeking, corruption by the water mafia.

Long term

- It can seriously hamper economic growth as all sectors of economy depend on water
- Polluted water will increase disease burden of the country
- It will cause further imbalance in regional growth

- It will lead to loss of biodiversity
- It will lead to further conflict among states who share river.

Thus it's time to take strong steps to tackle this crisis. It needs active participation of community, investment in water harvesting structures, judicious use of ground water, pricing of water.

18. Enlist the major fishing zones of the world along with the reasons for their distribution. Does India's deep sea fishing policy warrant a fresh look? Examine in context of the recommendations of the Meena Kumari committee on the matter.

विश्व के प्रमुख मत्स्यन क्षेत्रों की सूची प्रस्तुत कीजिए और साथ ही उनके वितरण के कारण बताइए। क्या गहरे समुद्र में मछली पकड़ने संबंधी भारत की नीति को नए दृष्टिकोण से देखने की आवश्यकता है? इस मामले पर मीना कुमारी समिति की अनुशंसाओं के संदर्भ में परीक्षण कीजिए।

The major fishing zones in the world are located in middle to high altitude. For eg

- Dogger bank and Great fisher Bank in northern Europe
- Grand bank, George bank in North America
- Sea of Japan.

Reasons

- Plankton availability: The meeting of cold and warm current result in high plankton availability. For example cold Labrador current meets warm gulf stream current at grand bank
- Historical factors: The temperate forests provide the wood for making boats
- Topography: Topography of Nordic and Japan are mountainous and hence not suitable for agriculture. Thus they depend on fishing

- coastline - A highly indented coastline is good for ~~pro~~ making harbours and ports
- climate - cool temperate climate supports storage
- ~~Storage~~ species diversity: The species diversity in coastal or temperate areas is low and hence make them suitable for commercial fishing.

The fisheries from near shore has been overexploited which calls for urgent need to exploit India's EEZ.

The recommendation of Meena Kumari committee is

- A sound monitoring, control, and surveillance regime to improve fisheries management and reduce illegal fishing
- comprehensive legislation for regulation of Indian fleet in EEZ
- Sustainable exploitation of fisheries resources in EEZ
- Human resource development
- Technology transfer / joint venture as India doesn't have required capacity to go technology for fishing beyond 500 m.

19. It has been observed that deltas formed by Indian rivers have been shrinking for the past few years. Discuss reasons for the same in context of different rates of shrinking of deltas of major rivers.

यह देखा गया है कि भारतीय नदियों द्वारा निर्मित डेल्टा पिछले कुछ वर्षों से सिकुड़ते जा रहे हैं। प्रमुख नदियों के डेल्टाओं के सिकुड़ने की विभिन्न दरों के संदर्भ में इनके कारणों पर चर्चा कीजिए।

Deltas formed by Indian rivers have been shrinking in last few years because

- Proliferation of large number of dams that reduces amount of silt sediment flowing to delta.
- Groundwater mining that causes land compaction
- Artificial levees that affect river courses and sediment carrying capacity.
- Rise of sea level.

Krishna delta is worst affected. The sediment trapping in upstream reservoir on Krishna is much greater and presently no to little sediment is added to Delta.

Ganga delta is affected by groundwater mining, which has led to significant compaction and subsidence of land over last 15 years.

The Indus river hardly contributes any sediment to delta or Arabian sea.

Due to shrinking deltas, seawater travels upstream leading to loss of freshwater and large areas of agricultural land.

Measures need to be taken immediately to protect a vital component of our ecosystem

- Study impact of sediment retention by dams ~~and~~ on delta population and ecosystems
- Study optimum level of sediments needed for stabilizing deltas.
- where delta subsidence, coastal erosion and related impacts like Salinity intrusion and storm surges have reached serious proportions specifically problematic dams should be considered for decommissioning.
- Reduction in ground water usage through cropping pattern change.

20. Why does the Arabian Sea experience fewer tropical cyclones as compared to the Bay of Bengal? Explain why tropical cyclones do not occur during the southwest monsoon season.

अरब सागर, बंगाल की खाड़ी की तुलना में उष्णकटिबंधीय चक्रवातों का कम अनुभव क्यों करता है? व्याख्या कीजिए कि दक्षिण पश्चिम मानसून की ऋतु के दौरान उष्णकटिबंधीय चक्रवात क्यों नहीं आते हैं?

The Indian subcontinent faces 5-6 tropical cyclones every year due to its long coastline of more than 7500 km.

The reasons for fewer cyclones in the Arabian sea are

- Cyclones that form over Bay of Bengal are those that develop within over southeast Bay of Bengal and Andaman Sea or remnants of typhoons over north west Pacific. As the frequency of typhoons over north west Pacific is quite high, so is the cyclone over Bay of Bengal.
- cyclones over Arabian sea either originate within over southeast Arabian sea or remnant of cyclones over Bay of Bengal that move across the south Indian peninsula.
- As majority of cyclones over Bay of Bengal weaken after landfall frequency of migration to Arabian sea is low.

- The sea surface temperature (SST) of Arabian Sea is lower than Bay of Bengal as BoB is more landlocked
- cyclones forming in BoB has more chance of reaching the coast due to North East trade winds.

Cyclones don't occur during the monsoon because

- during south west monsoon there is a strong westerly wind in lower troposphere and a strong easterly wind in upper troposphere leading to a strong vertical shear. strong vertical shear inhibit cyclones
- The depression forming over Bay of Bengal crosses mssa in a day or two and thus due to their short stay don't develop into cyclones.

