Paper 2: Schemes and Policies
- Swasth-Samaj Affordable Medical Access for all A healthy population is the engine behind economic growth; the alternative is a growing economic burden India’s healthcare system is underfinanced and relies too heavily on out-of-pocket (OoP) spending.

Paper 3: Agriculture
Mission 2022: The Challenges of Doubling Indian Farmer Incomes in Five Years
Four point action plan –
1. Remunerative prices for farmers by reforming the existing marketing structure
2. Raising productivity
3. Reforming agriculture land policy
4. Relief measures

Paper 2

Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

Paper 3
Science and Technology- developments and their applications and effects
- The government plans to bring a digital payment bill to strengthen legal framework and enhance surveillance to check cybercrimes in finance sector including frauds, targeting cards and e-wallets. According to reports of inter-ministerial committee, the existing laws will be studied on cybercrimes and then propose a legislation.
- The need to do this was felt after rising number of complaints especially after demonetisation.
- The proposed legislation will deal with punishments, fines for those who dupe online and also measures for fixing responsibilities in cases where digital transaction land in any dispute.
- In last three years, 1,44,496 cyber security attacks were observed in the country.
- There is a need of strengthening of the surveillance and legal frameworks to check the menace. It was noted that both legal and technological steps need to be taken to address this situation.
- The types of cyber security incidents included phishing, scanning/probing, website intrusions and defacements, virus/malicious code and denial of service attacks.

New cybercrime bill
3 challenges
1. Under which law to make the necessary changes or make new law, especially after privacy challenges
2. Different stakeholders to consult and coordinate with
3. With the law, how to enforce it with the technology
In the 21st century, especially after demonetisation, there is a push towards digitisation of everything- government documents, bank accounts, RBI, SEBI details etc. Electronic form is encouraged so as to save paper as well as keep a proper track record. In this scenario, the cyber security set up has to be beefed.
GN – 28.10.2017

Paper 3: Conservation, environmental pollution and degradation

Solving the issue of burning crop residue

The issue of crop residue burning, mainly in Punjab, remains unsolved continuing the harm to environment and farmers’ health. Paddy is grown on an average area of around 30 lakh hectares in Punjab. After harvest, around 19.7 million tonnes of paddy straw is left in the fields and has to be disposed of to make way for wheat. Of this, 70-75% of paddy straw is burnt in open fields to clear the land for sowing wheat or other crops — it is the quickest and cheapest way of getting rid of the residue.

NGT directive:
In 2015, the NGT was forced to stop the practice of stubble burning after thick smog enveloped the northern skies with the onset of autumn yet again, and acute respiratory problems were reported to be worsening in the national capital. The NGT banned the burning of paddy straw in four States — Punjab, Haryana, Rajasthan and Uttar Pradesh — and Delhi. It also directed the four States and Delhi to make arrangements to provide machinery free of cost to farmers with less than two acres of land, Rs. 5,000 to farmers with medium-sized land holdings, and Rs. 15,000 to those with large land holdings for residue management.

While the Punjab Pollution Control Board (PPCB) has been imposing penalties on farmers who have been found defying the ban, the farmers hardly seem deterred. As the government attempts to enforce the ban in the face of defiance, farmers have turned to guards to ensure that their work goes on unhindered.

Problems:
- Time and cost are both crucial. Farmers have to prepare land to sow wheat in less number of days. Both machine and labor are difficult to find, for clearing the paddy straw, and will be a time-consuming effort.
- To engage labour or machinery will cost somewhere between Rs. 4,000 and 5,000 per acre, which many farmers can’t afford.
- Farmers in Punjab, especially small and marginal farmers, are already facing severe economic distress. To ask them to remove crop residue mechanically or through environment-friendly measures will only add to their misery.
- The State government has failed to arrange for the equipment and machinery required for ploughing paddy straw into the fields.
- Burning crop residue in the field kills friendly pests and damages soil fertility.
- Besides disregard for the ban, with the support of several farmers’ unions, farmers have also cautioned the State government against taking stringent action against them. Several unions have made it clear that if police cases are registered against them, the government will have to face the consequences in the form of large-scale agitations.

Futuristic:
- Unless financial assistance is provided by the Centre for boosting farm mechanisation, it is difficult to completely stop stubble burning.
- States needs to make alternative arrangements for consumption of paddy straw into the soil as per the directions of the NGT.
- The State government needs to focus on crop diversification. Instead of paddy (common rice), basmati varieties of rice should be encouraged. Basmati is manually harvested, so the problem of crop residue can be largely curtailed. Also, farming of sugar cane and vegetables needs to be promoted.
Solutions:

- To tackle the problem of paddy residue, the Ludhiana-based PAU is working on in situ decomposition of paddy (rice) straw, with microbial application and without mechanical effort. This approach will hold to reduce the cost of retaining the straw in the field for its benefits to the soil.
- The Happy Seeder- a machine developed by the Punjab Agricultural University (PAU) to plant wheat directly into harvested paddy fields without any other major operation, and to promote the use of straw baler and straw management machines for residue management. In the machine, the straw is partly cut, chopped, and left as mulch. Mulch helps in reducing irrigation requirement and blocks the emergence of weeds. The crop planted with Happy Seeder is less prone to lodging. This is more profitable than conventional cultivation.

Paper 3 - Industries

India and US Hold 11th Trade Policy Forum Meeting in Washington D.C. On October 26th

- The 11th Trade Policy Forum (TPF) Meeting was held in Washington D.C. on 26th October 2017. The Minister for Commerce and Industry, Shri Suresh Prabhu had productive discussions with the United States Trade Representative, Ambassador Robert Lighthizer and his team in a cordial, friendly and positive manner.
- The Minister for Commerce and Industry noted that the TPF serves as a robust platform that contributes towards promoting bilateral trade and investment between India and the US. During the meeting, discussions were held on issues related to bilateral trade between the two countries, areas of mutual cooperation, market access in agriculture, non-agricultural goods and services and Intellectual Property Rights (IPR).

Paper 3 : Science and Technology

- Dr Jitendra Singh said here that India has vindicated the Nuclear Peace Mission of the founding father of India’s Nuclear Energy Programme, Dr Homi J. Bhabha.
- Dr Jitendra Singh said, after 60 years, we are now in a position to claim to the whole world, how India’s Nuclear Programme has emerged as a major resource pool for the growing energy needs of the country for its economic growth and development. He said, even though at present almost 60% of power generation in India is from coal and other sources, but in the years to come, green sources of energy, including the nuclear energy will be playing a major contribution.
- Congratulating the organizers of the conference for having included in their programme this year focused sessions on application of nuclear energy for medical irradiation in patients and other such situations, Dr Jitendra Singh said, the enormous non-electricity applications of nuclear energy are either not known or they are now put into use. In this context, he cited his personal experience of having promoted the application of nuclear energy in the last one year or so in diverse fields including irradiation of agricultural and food products and non-destructive cleaning of the monumental structures.