Contents

*Insights Current Affairs Quiz* ........................................................................................................... 3

Category - Schemes and Programmes ................................................................. 3

Category - Social Issues .................................................................................... 9

Category - Polity & Governance ...................................................................... 10

Category - International Affairs ................................................................. 14

Category – Judiciary ....................................................................................... 20

Category – Economics .................................................................................... 20

Category – Geography .................................................................................. 30

Category – Ecology & Environment .......................................................... 43

Category – National Institutions ................................................................ 48

Category - State Affairs ............................................................................... 50

Category - Science & Technology .............................................................. 51

Category – History ....................................................................................... 63
Insights Current Affairs Quiz

Category - Schemes and Programmes

1. Consider the following statements:
   1. According to the 2011 census, India has around 125 million people with disabilities.
   2. The Election Commission had this year declared ‘Accessible Elections’ as the theme for the National Voters Day.

Which of the statements given above is/are correct?
   a) 1 only
   b) 2 only
   c) Both 1 and 2
   d) Neither 1 nor 2

Solution: b.

The Election Commission will launch a voter education and electoral participation portal on July 3, with a section dedicated to the Persons with Disabilities (PwDs), in the backdrop of a two-day national consultation programme on issues pertaining to their inclusion in the poll process. The programme on “Inclusion of Persons with Disabilities (PwDs) in the Electoral Process” is being organised with a view to come up with a national policy on the issue. According to the 2011 census, India has around 70 million people with disabilities.

Under the EC’s Strategic Plan 2016-2025, greater participation of PwDs in the electoral process has been identified as one of the core objectives.

As part of the initiative, the EC had this year declared “Accessible Elections” as the theme for the National Voters Day observed on January 25. The international conference held on January 24 focussed on the same theme.

2. Consider the following statements about the recently launched KrishiKalyanAbhiyaan:
   1. It will be undertaken in some villages located only in aspirational districts.
   2. It will run till farmers incomes are doubled.
   3. The overall coordination and implementation of the action plans for each district will be the responsibility of NITI Aayog.

Which of the statements given above is/are correct?
   a) 1 only
   b) 1 and 2
   c) 3 only
   d) 2 and 3

Solution: a.

The Ministry of Agriculture and farmers’ welfare in line with the Prime Minister’s vision of doubling farmers’ income by 2022 has launched the KrishiKalyanAbhiyaan from 1st June, 2018 till 31st July, 2018.
so as to aid, assist and advice farmers on how to improve their farming techniques and raise their incomes.

KrishikalyanAbhiyaan will be undertaken in 25 Villages with more than 1000 population each in Aspirational Districts identified in consultation with Ministry of Rural Development as per directions of NITI Aayog. In districts where number of villages (with more than 1000 population) is less than 25, all villages will be covered.

An Action Plan comprising specifically identified activities under various agricultural departments will be implemented to saturate these 25 villages in each district with these activities. The overall coordination and implementation in the 25 villages of a district is being done by KrishiVigyan Kendra of that district. 111 officers have also been made in-charge of one district each for overall coordination and field level monitoring. These officers have been selected from subordinate/attached/autonomous organizations/PSUs etc. of Ministry of Agriculture & Farmers Welfare.

PIB; Improvisation: PIB;

3. Consider the following statements:
   1. Port Blair is one of the cities selected by the Government of India under the Smart City Mission.
   2. The Island Development Agency is chaired by the Cabinet Secretary and includes as a member the Lt. Governor of Andaman & Nicobar Islands.

Which of the statements given above is/are correct?
   a) 1 only
   b) 2 only
   c) Both 1 and 2
   d) Neither 1 nor 2

Solution: a.

PIB: “I am also happy that Port Blair city has been selected by the Government of India under Smart City Mission and the process for appointment of Project Management consultant is underway…”

The Island Development Agency is chaired by the Home Minister. The Cabinet Secretary, Lt. Governor of A&N Islands and Administrator of Lakshadweep Islands attend its meetings.

4. ‘Making Cities Resilient’ campaign was launched in 2010 by
   a) UNISDR
   b) UNESCO
   c) Rockefeller foundation
   d) World Bank Group

Solution: a.

Throughout 2010-2020 and beyond, the UNISDR Making Cities Resilient Campaign (MCRC), together with partners, aim to support sustainable urban development by promoting resilience activities and increasing local level understanding of disaster risk. A ten-point checklist of essentials for making cities resilient serves as a guide for a city’s commitment toward improving their resilience and is the organizing principle for reporting and monitoring during the campaign.
5. Consider the following statements about ‘Institutions of Eminence (IoE)’ scheme:
   1. Each institution selected as IoE will get financial assistance up to Rs. 1,000 crore over a period of five years.
   2. The aim of the scheme is to bring higher educational institutions selected as IoEs in top 500 of world ranking in the next 5 years.

Which of the statements given above is/are correct?

   a) 1 only
   b) 2 only
   c) Both 1 and 2
   d) Neither 1 nor 2

Solution: d.

The aim of the scheme is to bring higher educational institutions (both public and private) selected as IoEs in top 500 of world ranking in the next 10 years and in top 100 eventually overtime. The scheme has been launched with an objective to provide world class teaching and research facilities to Indian students within the country and enhance general level of education of the country.

*Each public institution* selected as ‘Institution of Eminence’ will get financial assistance up to Rs. 1000 Crore over the period of five years under this scheme.

Under this scheme, IoEs will have freedom to choose their own path to become world class institutions. Institutions shall be selected as IoEs by the Empowered Expert Committee (EEC), constituted for this purpose. The EEC shall conduct their appraisal based on their 15 years strategic vision plan and 5 years implementation plan as well as any other measure of demonstrated commitment to the cause of developing an IoE.

About IoEs: PIB
In the news: PIB

6. Consider the following statements:
   1. Under the Blue Revolution Scheme, central financial assistance for deep sea fishing can be availed.
   2. Of the total fish production in India, the larger share is registered from the inland fisheries sector.

Which of the statements given above is/are correct?

   a) 1 only
   b) 2 only
   c) Both 1 and 2
   d) Neither 1 nor 2

Solution: c.

PIB: ‘Assistance for Deep-Sea Fishing’ under ‘Blue-Revolution’: Under this, the traditional fishermen and their societies / associations can avail financial assistance to the extent of Rs. 40 lakh per vessel for purchase of deep sea fishing vessel including equipments to increase fish production. The unit cost per vessel is Rs. 80 lakh, wherein the DADF provides 50 % of the Unit cost with a ceiling of Rs. 40 lakh as
Central subsidy and the remaining cost of the vessel has to be borne by the respective State Government / beneficiary / financial institutions.

Fish production in India is estimated at 11.4 million tonnes, out of which 68% is registered from inland fisheries sector and the remaining 32% from marine sector. It is expected that the indigenous fish requirement by 2020 would be 15 million tonnes as against the production of 11.4 million tonnes. This gap of 3.62 million tonnes is expected to be made up by Inland Aquaculture and also through mariculture.

7. The ‘Startup India Yatra’ is an initiative that is related to
   a) Development of startup ecosystems in villages.
   b) The search for entrepreneurial talent in Tier-2 and Tier-3 cities.
   c) Awareness workshops on the Startup India Initiative being held at technical universities across the country.
   d) Startup India Hub’s international bilateral cooperation with countries having strong startup ecosystems.

Solution: b.

The Startup India Yatra is an initiative that travels to Tier 2 and Tier-3 cities of India to search for entrepreneurial talent and help develop Startup ecosystem. The StartupYatras have covered the States of Gujarat, Uttar Pradesh and Odisha where more than 18000 young entrepreneurs were supported through mentorship. StartupYatra in Uttarakhand has recently been started on 2 April.

Government Startup Initiatives: PIB;
In the news: PIB;

8. With which one of the following state/central legislations is ‘Mission Birubala’ and ‘Project Prahari’ closely related?
   b) The Protection of Manipur People’s Bill, 2015
   c) Assam Witch Hunting (Prohibition, Prevention and Protection) Act, 2015
   d) Arunachal Freedom of Religion Act, 1978

Solution: c.

President Ram Nath Kovind’s assent to the Bill against witch-hunting that the Assam Assembly passed three years ago has rejuvenated the campaign of a barely literate 65-year-old woman against superstition that has claimed scores of lives.

Ms. Birubala Rabha has been campaigning against witch-hunting after a quack almost killed her son in 1996. She stood her ground despite the threat of excommunication by the local shaman and went on to rescue over 50 women from being branded as witches before launching Mission Birubala against the menace.
Another important person behind the legislation is Director-General of Police Kuladhar Saikia. As Deputy Inspector-General in Kokrajhar, he launched Project Prahari in 2001, which blended normal policing with social campaigns to check the menace.

TH:

9. The Pradhan Mantri Jan Vikas Karyakram (PMJVK) refers to the restructured Multi-Sectoral Development Programme (MsDP). What makes the PMJVK different from MsDP?
   1. The population criteria has been lowered to 50%, viz. the programme will be implemented in such clusters of villages which have at least 50% population of minority communities.
   2. Towns which are found to be backward in terms of either or both parameters – basic amenities and socio-economic indicators – will be taken up as Minority Concentration Towns.
   3. ‘Minorities’ under the programme have been redefined as religious minorities within a particular state.

Select the correct answer using the code given below:
   a) 1 and 2 only
   b) 2 only
   c) 2 and 3 only
   d) 3 only

Solution: b.

The Cabinet Committee on Economic Affairs chaired recently approved the proposal for renaming and restructuring of MsDP as PMJVK. The CCEA also approved its continuation during the remaining period of the 14th Finance Commission.

The criteria for identification of Minority Concentration Towns and Clusters of Villages have been rationalised by lowering the population percentage criteria of Minority Communities and fulfilment of backwardness parameters in the following manners:

- For MCTs, refer statement 2.
- Corrected statement 1: Earlier only those Cluster of Villages which were having at least 50% population of Minority Community were taken. Now the population criteria has been lowered to 25%.

Additional Information:

- The Programme aims to address development deficits in the identified minority concentration areas. The identification of minority concentration areas has been done on the basis of presence of substantial population of notified Minority Communities (Sikhs, Muslims, Christians, Zoroastrians, Buddhists and Jains) based on Census, 2011.
- The area to be covered under PMJVK would be 57% more as compared to the existing MsDP.
- The MsDP covered 196 district of the country whereas PMJVK will cover 308 districts of the country.
- 80% of the resources under the PMJVK would be earmarked for projects related to education, health and skill development.
- 33 to 40% of resources under the PMJVK would be specifically allocated for women centric projects.
- A provision to bring all implementing agencies under Public Finance Management System (PFMS) and its effective use ensured to monitor fund utilization has been made in PMJVK.
• MsDPhas been identified as one of the Core of the Core Schemes under National Development Agenda in the Report of the Sub-Group of Chief Ministers on Rationalization of Centrally Sponsored Schemes, which was constituted by NITI Aayog.

PIB1; 
Improvisation: PIB2;

10. The ‘SamagraShiksha’ scheme subsumes
   1. SarvaShikshaAbhiyan
   2. RashtriyaMadhyamikShikshaAbhiyan
   3. Teacher Education

Select the correct answer using the code given below:
   a) 1 and 2 only
   b) 2 and 3 only
   c) 1 and 3 only
   d) 1, 2 and 3

Solution: d.

The Union Budget, 2018-19, had proposed to treat school education holistically without segmentation from pre-nursery to Class 12.

SamagraShiksha – an overarching programme for the school education sector extending from pre-school to class 12 – has been, therefore, prepared with the broader goal of improving school effectiveness measured in terms of equal opportunities for schooling and equitable learning outcomes. It subsumes the three Schemes of SarvaShikshaAbhiyan (SSA), RashtriyaMadhyamikShikshaAbhiyan (RMSA) and Teacher Education (TE).

The major objectives of the Scheme are
   • provision of quality education and enhancing learning outcomes of students;
   • bridging Social and Gender Gaps in School Education;
   • ensuring equity and inclusion at all levels of school education;
   • Ensuring minimum standards in schooling provisions;
   • Promoting Vocationalisation of education;
   • Support States in implementation of Right of Children to Free and Compulsory Education (RTE) Act, 2009; and
   • Strengthening and up-gradation of SCERTs/State Institutes of Education and DIET as nodal agencies for teacher training.

PIB; Also refer: PIB (24th May);

11. The ‘Girinka – one cow per poor family’ programme, recently in the news, is meant to provide nutritional and financial security. This programme is being implemented by
   a) Uganda
   b) South Africa
   c) Rwanda
   d) Tanzania

Solution: c.
Prime Minister Narendra Modi on July 24 presented 200 cows to poor villagers in Rwanda to support President Paul Kagame’s ambitious initiative for poverty reduction and tackling childhood malnutrition. The Girinka Programme was initiated by Mr. Kagame in 2006 to provide one cow per poor family for their nutritional and financial security.

Category - Social Issues

1. The survey ‘Wings 2018: World of India’s Girls’ was conducted by
   a) Save the Children
   b) Swayam
   c) CARE India
   d) Sayfty

   Solution: a.

2. The Bru people today predominantly reside in the states of
   a) Nagaland and Manipur
   b) Tripura and Mizoram
   c) Meghalaya and Assam
   d) Sikkim and West Bengal

   Solution: b.

   More than 30,000 people belonging to the Bru community, who fled from Mizoram to Tripura in 1997 in the wake of inter-community violence, are set to be repatriated to Mizoram, the Union Home Ministry said.
Category - Polity & Governance

1. Consider the following statements:
   1. The Telecom Regulatory Authority of India is the highest decision-making body in the Department of Telecom.
   2. While TRAI was established by an Act of Parliament, the Telecom Commission was established by a government resolution.

Which of the statements given above is/are correct?

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

Solution: b.

About the Telecom Commission (DoT): The Telecom Commission was set up by the Government of India vide a resolution with administrative and financial powers of the Government of India to deal with various aspects of Telecommunications (Formulating the policy of DoT; Preparing the budget for DoT for each financial year; and Implementation of Government's policy in all matters concerning telecommunication). It consists of a Chairman, four full time members and four part time members. The Secretary to the Government of India in the Department of Telecommunications is the ex-officio Chairman.

CATEGORY:

About TRAI (TRAI): The entry of private service providers brought with it the inevitable need for independent regulation. The Telecom Regulatory Authority of India (TRAI) was, thus, established with effect from 20th February 1997 by an Act of Parliament, called the Telecom Regulatory Authority of India Act, 1997, to regulate telecom services, including fixation/revision of tariffs for telecom services which were earlier vested in the Central Government.

In the news: TH;

2. Consider the following statements with reference to the upper house of the parliament (Rajya Sabha):
   1. The President can nominate Anglo-Indians to the Rajya Sabha if they have special knowledge or practical experience in art, literature, science and social service.
   2. While the Deputy Chairman performs the duties of the Chairman’s office when it is vacant or absent, any one of the members of the panel of vice-chairpersons can preside over the house only in the absence of the Deputy Chairman.

Which of the statements given above is/are correct?

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

Solution: a.
Statement 1: The president nominates 12 members to the RajyaSabha from people who have special knowledge or practical experience in art, literature, science and social service. (Such eminent persons can be Anglo-Indians too.)

Statement 2: Under the Rules of RajyaSabha, the Chairman nominates from amongst the members a panel of vice-chairpersons. Any one of them can preside over the House in the absence of the Chairman or the Deputy Chairman. He has the same powers as the Chairman when so presiding. He holds office until a new panel of vice-chairpersons is nominated. When a member of the panel of vice-chairpersons is also not present, any other person as determined by the House acts as the Chairman.

It must be emphasised here that a member of the panel of vice-chairpersons cannot preside over the House, when the office of the Chairman or the Deputy Chairman is vacant. During such time, the Chairman’s duties are to be performed by such member of the House as the president may appoint for the purpose. The elections are held, as soon as possible, to fill the vacant posts.

Improvisation: TH1; TH2;

3. “Coordination and determination of standards in institutions for higher education” is a
   a) Union subject
   b) State subject
   c) Concurrent subject
   d) Residuary subject

Solution: a.
The 66th subject in the union list: Co-ordination and determination of standards in institutions for higher education or research and scientific and technical institutions.

Seventh Schedule:
In the news: HECI bill;

4. As per the constitutional scheme, which of the following are state subjects?
   1. Public health
   2. Public order
   3. Adoption and succession
   4. Land

Select the correct answer using the code given below:
   a) 1, 2 and 4 only
   b) 1 and 2 only
   c) 3 and 4 only
   d) 1, 2, 3 and 4

Solution: a.
State subjects:
- Public order (but not including 3[the use of any naval, military or air force or any other armed force of the Union or of any other force subject to the control of the Union or of any contingent or unit thereof] in aid of the civil power).
- Land, that is to say, rights in or over land, land tenures including the relation of landlord and tenant, and the collection of rents;
- Public health and sanitation; hospitals and dispensaries;
5. Which among the following rights is/are today recognised as fundamental under the Constitution?
   1. Right to protest
   2. Right to strike
   3. Right to picketing
   4. Right to take out processions

Select the correct answer using the code given below:
   a) 1, 2, 3 and 4
   b) 1 only
   c) 3 and 4 only
   d) 1, 2 and 4 only

Solution: d.

Under Article 19, following are recognised as fundamental rights among others:
   - The right to demonstration or picketing but not right to strike.
   - The right to hold public meetings, demonstrations and take out processions.
   - The right to protest.

The right to strike is not a fundamental right.

6. Consider the following statements about the privilege motion:
   1. It can only be moved against a minister.
   2. Its purpose is to censure the government and hence RajyaSabha is not permitted to make use of this device.

Which of the statements given above is/are correct?
   a) 1 only
   b) 2 only
   c) Both 1 and 2
   d) Neither 1 nor 2

Solution: d.

Parliamentary privileges are certain rights and immunities enjoyed by members of Parliament, individually and collectively, so that they can “effectively discharge their functions”. When any of these rights and immunities are disregarded, the offence is called a breach of privilege and is punishable under law of Parliament. A notice is moved in the form of a motion by any member of either House against those being held guilty of breach of privilege.

7. The annual ‘Public Affairs Index’, which ranks the states of India from the lens of governance, has been developed by which one of the following NGOs?
   a) Praja Foundation
b) Janaagraha

c) Public Affairs Centre

d) National Foundation for India

Solution: c.

As Kerala trumped high-profile peers such as Tamil Nadu, Karnataka and Telangana to emerge on top of the Public Affairs Index 2018, celebrations in one place have been matched by excuses in others. The losers have the argument that the checklist of the Public Affairs Centre, the Bengaluru-based think tank, is skewed in favour of Kerala: its focus is on social development and service delivery rather than big ticket investments.

Public Affairs Index (PAI) is a data driven platform to rank the 30 States of India (the report probably has considered the NCT of Delhi as the 30\textsuperscript{th} state) from the lens of governance. While it is a complex task to rank the Indian states which are economically, culturally and socially so diverse, Public Affairs Centre (PAC) has developed PAI as a unique statistical tool to evaluate the performance of governance in the States. PAI is largely based on secondary data and has been extracted from Union Government Ministries and Departments.

8. In which of the following human development indicators of Scheduled Tribes has improvement been achieved between 2005-06 and 2015-16?

1. Infant mortality rate
2. Under-five mortality rate
3. Institutional delivery

Select the correct answer using the code given below:

a) 1 and 2 only
b) 2 and 3 only
c) 1 and 3 only
d) 1, 2 and 3

Solution: d.

Over the years there has been vast improvement in the human development indicators pertaining to Scheduled Tribes (STs), for example, literacy rate for STs has improved from 47.1\% in 2001 to 59\% in 2011. Infant Mortality Rate has declined from 62.1 (2005-06) to 44.4 (2015-16), Under Five Mortality Rate has declined from 95.7 (2005-06) to 57.2 (2015-16), and Institutional Delivery has increased from 17.7\% in 2005-06 to 68.0\% in 2015-16.

9. Which of the following arrangements were first introduced by the Montague-Chelmsford Reforms?

1. Association of Indians with the executive councils of viceroy and governors.
2. The majority of members of both houses – Council of State and the Legislative Assembly – were chosen by direct election.
3. Demarcation and separation of central and provincial subjects, with the central and provincial legislature authorised to make laws on their respective list of subjects.

Select the correct answer using the code given below:

a) 1 and 2 only
b) 2 only  
c) 2 and 3 only  
d) 3 only  

Solution: c.

Features of the Government of India Act of 1919:

- It relaxed the central control over the provinces by demarcating and separating the central and provincial subjects. The central and provincial legislatures were authorised to make laws on their respective list of subjects.
- It introduced, for the first time, bicameralism and direct elections in the country. Thus, the Indian Legislative Council was replaced by a bicameral legislature consisting of an Upper House (Council of State) and a Lower House (Legislative Assembly). The majority of members of both the Houses were chosen by direct election.
- It separated, for the first time, provincial budgets from the Central budget and authorised the provincial legislatures to enact their budgets.

Statement 1 refers to a reform introduced by the Act of 1909.

TH: Indian Polity by M Laxmikanth;

10. The selection committee for the appointment of the Chief Information Commissioner (CIC) is headed by the
   a) Minister of Personnel, Public Grievances and Pensions
   b) Chief Justice of India
   c) Prime Minister
   d) Outgoing CIC

Solution: c.

The Central Information Commission consists of a Chief Information Commissioner and not more than ten Information Commissioners. They are appointed by the President on the recommendation of a committee consisting of the Prime Minister as Chairperson, the Leader of Opposition in the Lok Sabha and a Union Cabinet Minister nominated by the Prime Minister.

TH: Indian Polity by M Laxmikanth;

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**Category - International Affairs**

1. ‘RIMPAC’, recently in the news, is
   1. The world’s largest international maritime exercise.
   2. Hosted annually in rotation by the Quad nations.

Select the correct answer using the code given below:

a) 1 only  
b) 2 only  
c) Both 1 and 2  
d) Neither 1 nor 2

Solution: a.

The Rim of the Pacific Exercise (RIMPAC) is the world’s largest international maritime exercise, hosted by the U.S. biennially off the Hawaii islands.
RIMPAC provides a unique training opportunity designed to foster and sustain cooperative relationships that are critical to ensuring the safety of sea lanes and security on the world's interconnected oceans. RIMPAC 2018 is the 26th exercise in the series that began in 1971.

2. A PAROS treaty would complement and reaffirm the importance of the
   a) Convention on Biological Diversity
   b) Treaty on the Non Proliferation of Nuclear Weapons
   c) Outer Space Treaty
   d) UN Convention on the Law of the Sea

Solution: c.
A PAROS treaty would complement and reaffirm the importance of the 1967 Outer Space Treaty, which aims to preserve space for peaceful uses by prohibiting the use of space weapons, the development of space-weapon technology, and technology related to “missile defense.” The treaty would prevent any nation from gaining a military advantage in outer space.

Source/Improvisation: TH; NTI: Proposed PAROS Treaty;

3. The Asia Pacific Trade Agreement (APTA) is an initiative under the
   a) East Asia Summit
   b) Asian Infrastructure Investment Bank
   c) Asian Development Bank
   d) UN Economic and Social Commission for Asia and the Pacific

Solution: d.
APTA (formerly Bangkok Agreement) is an initiative under the United Nations Economic and Social Commission for Asia and the Pacific (UN ESCAP) for trade expansion through exchange of tariff concessions among developing country members of the Asia Pacific Region, in place since 1975. APTA is a Preferential Trade Agreement, under which the basket of items as well as extent of tariff concessions are enlarged during the trade negotiating rounds which are launched from time to time. ESCAP functions as the Secretariat to the Agreement.

Currently, the following six states are party to APTA: Bangladesh, China, India, Laos, South Korea and Sri Lanka. Mongolia has concluded its bilateral negotiations on tariff concessions with the current Participating States, and is soon to become the seventh member of APTA.

PIB;

4. The Berne Convention is an international agreement governing
   1. Copyrights
   2. Trademarks
   3. Designs
   4. Geographical Indications

Select the correct answer using the code given below:
The WIPO Copyright Treaty (WCT) is a special agreement under the Berne Convention which deals with the protection of works and the rights of their authors in the digital environment. In addition to the rights recognized by the Berne Convention, they are granted certain economic rights. The Treaty also deals with two subject matters to be protected by copyright: (i) computer programs, whatever the mode or form of their expression; and (ii) compilations of data or other material ("databases").

The Berne Convention for the Protection of Literary and Artistic Works, adopted in 1886, deals with the protection of works and the rights of their authors. It provides creators such as authors, musicians, poets, painters etc. with the means to control how their works are used, by whom, and on what terms.

In the news (PIB): The Union Cabinet has approved the proposal submitted by Department of Industrial Policy and Promotion, Ministry of Commerce and Industry regarding accession to the WIPO Copyright Treaty and WIPO Performers and Phonograms Treaty which extends coverage of copyright to the internet and digital environment.

5. Consider the following statements about Taiwan:
   1. India does not have diplomatic relations with it.
   2. It is one of the largest exporters of Integrated Circuits.
Which of the statements given above is/are correct?
   a) 1 only
   b) 2 only
   c) Both 1 and 2
   d) Neither 1 nor 2

Solution: c.
Both statements are correct.

IE: Since 1949, India has accepted the “One China” policy that accepts Taiwan and Tibet as part of China. However, since 2010, when Beijing was issuing stapled visas to Indian nationals from Jammu and Kashmir and Arunachal Pradesh, India has not been explicitly mentioning “One China policy” in bilateral joint statements.

Delhi has often used the issue to make a diplomatic point. For example, before Chinese President Xi Jinping’s visit to India in 2014, External Affairs Minister SushmaSwaraj had recalled her conversation with Chinese Foreign minister Wang Yi where she had said that if India believes in “One China” policy, China should also believe in a “One India” policy.

Regarding statement 2: USDoC: Export.gov; TH;
6. Which of the following statements about the Asian Ministerial Conference for Disaster Risk Reduction (AMCDRR) is/are correct?
   1. The United Nations Office for Disaster Risk Reduction (UNISDR) is a co-organiser.
   2. India will host the 2018 conference.

Select the correct answer using the code given below:
   a) 1 only
   b) 2 only
   c) Both 1 and 2
   d) Neither 1 nor 2

Solution: a.

- The AMCDRR is a biennial conference jointly organised by different Asian countries and the United Nations Office for Disaster Risk Reduction (UNISDR). The event represents a unique opportunity for governments to reaffirm their political commitments in implementation of the Hyogo Framework for Action (HFA) and now the Sendai Framework for DRR 2015-2030.
- The AMCDRR also serves as a forum for other stakeholders to take a shared responsibility and make actionable commitments towards implementation of Disaster Risk Reduction (DRR).
- At the same time the conference also provides opportunity for all governments and stakeholders to exchange experiences on successful practices and innovative approaches in reducing and managing disaster risk.
- So far, countries in Asia in collaboration with UNISDR have organized eight AMCDRR conferences since 2005. India has hosted the AMCDRR in 2007 and 2016. The eighth conference recently concluded in Ulaanbaatar.

From 2015: PIB;
Improvisation: PIB;

7. With which of the following countries does India presently have annual bilateral trade worth more than fifty billion U.S. dollars?
   1. South Korea
   2. Indonesia
   3. China
   4. Singapore

Select the correct answer using the code given below:
   a) 1, 2 and 3
   b) 3 only
   c) 1, 2 and 4
   d) 3 and 4 only

Solution: b.

- TH: “...India-South Korea trade last year was only $20 billion..”
- Livemint: Trade between Indian and Indonesia in 2016 was $12.9 billion. It rose 28.7% to $18.13 billion in 2017 with Indonesia’s exports to India reaching $14.08 billion and its imports from India standing at $4.05 billion.
- TH: The India-China bilateral trade reached $84.44 billion last year, a historic high, notwithstanding bilateral tensions over a host of issues, including the Doklam standoff.
- MEA: Singapore is India’s 2nd largest trade partner among ASEAN countries. Bilateral trade expanded after the conclusion of CECA from US$ 6.7 billion in 2004-05 to reach US$ 16.7 billion in 2016-17. In the news: ET;
8. Consider the following statements:
   1. The ‘Friends of Yemen Group’ was established in 2017 to help bolster and coordinate international humanitarian assistance to Yemen.
   2. India is a member of the ‘Friends of Yemen Group’.
Which of the statements given above is/are correct?
   a) 1 only
   b) 2 only
   c) Both 1 and 2
   d) Neither 1 nor 2
Solution: b.
The Friends of Yemen was established in January 2010 at a meeting of ministers in London to help bolster international political support for Yemen and to assist Yemeni-led efforts to tackle the underlying causes of instability. The Friends of Yemen is a political meeting of Foreign Ministers, though the humanitarian crisis and aid delivery is discussed.
As a part of its commitment to provide humanitarian assistance to Yemen, India has been a member of the ‘Friends of Yemen’ Group.

MEA:
Improvisation: TH:
Gov.uk: Friends of Yemen

9. With reference to the India-Iran bilateral trade during the fiscal year 2016-17, India imported USD 10.5 billion worth of goods—mainly crude oil— from Iran and exported commodities worth USD 2.4 billion. Major Indian exports to Iran include
   1. Rice
   2. Tea
   3. Textiles
   4. Drugs and pharmaceuticals
Select the correct answer using the code give below:
   a) 1, 3 and 4
   b) 1 and 3 only
   c) 2 and 4 only
   d) 1, 2 and 4
Solution: d.
India-Iran enjoys economic and commercial ties covering many sectors though it has traditionally been dominated by Indian import of Iranian crude oil. India continued to engage with Iran at the time of sanctions. The India-Iran bilateral trade during the fiscal year 2016-17 was USD 12.89 billion. India imported USD 10.5 billion worth of goods mainly crude oil and exported commodities worth USD 2.4 billion. Major Indian exports to Iran include rice, tea, iron and steel, organic chemicals, metals, electrical machinery, drugs/pharmaceuticals, etc.

MEA: India-Iran;
Improvisation: TH:
10. Which one of the following colours does not constitute a stripe on the most common variant of the ‘rainbow flag’ – a symbol of the LGBT rights movement?
   a) Red
   b) Pink
   c) Yellow
   d) Blue

Solution: b.
Artist Gilbert Baker, an openly gay man and a drag queen, designed the first rainbow flag in 1978. Baker saw the rainbow as a natural flag from the sky, so he adopted eight colors for the stripes, each color with its own meaning (hot pink for sex, red for life, orange for healing, yellow for sunlight, green for nature, turquoise for art, indigo for harmony, and violet for spirit).

The first versions of the rainbow flag were flown on June 25, 1978, for the San Francisco Gay Freedom Day parade. Baker and a team of volunteers had made them by hand, and now he wanted to mass-produce the flag for consumption by all. However, because of production issues, the pink and turquoise stripes were removed and indigo was replaced by basic blue, which resulted in the contemporary six-striped flag (red, orange, yellow, green, blue, and violet). Today this is the most common variant of the rainbow flag, with the red stripe on top, as in a natural rainbow. The various colors came to reflect both the immense diversity and the unity of the LGBT community.

11. HimaDas’s gold was the country’s first-ever in a track event at any IAAF (International Amateur Athletic Federation) World event. The recently concluded IAAF World Under-20 Championships took place in
   a) Finland
   b) Netherlands
   c) Romania
   d) Czechoslovakia

Solution: a.
The 2018 World U20 Championships in Athletics, also known as the World Junior Championships, took place at Tampere Stadium in Tampere, Finland from 10th to 15th July 2018.

12. Which one of the following countries is incorrectly paired with the joint military exercise that India has participated in?
a) South Africa – Ex Nomadic Elephant
b) Bangladesh – Table Top Ex
c) Israel – Ex Blue Flag
d) Oman – Ex Eastern Bridge

Solution: a.
Exercise Nomadic Elephant – Mongolia and India;

For the complete list, refer: PIB;

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Category – Judiciary

1. Consider the following statements:
   1. The interim government that ruled the country after the declaration of Independence and the first general election included opposition leaders like Dr. Ambedkar and Shyama Prasad Mukerjee.
   2. Shyama Prasad Mukherjee was the founder-President of the Bharatiya Jana Sangh.
   3. Dr. Ambedkar was associated with the formation of the Republican Party of India, the Scheduled Castes Federation and the Independent Labour Party.

Which of the statements given above is/are correct?

a) 1 and 2 only  
b) 2 and 3 only  
c) 1 and 3 only  
d) 1, 2 and 3

Solution: d.
All statements are correct.

Improvisation: PIB;
Chapter ‘Era of One Party Dominance’, NCERT Politics in India since Independence Class XII;

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Category – Economics

1. under the Liberalised Remittance Scheme
   1. Remittances up to USD 250,000 per financial year for some current or capital account transactions is permitted.
   2. Hindu Undivided Families, Trusts and resident individuals can freely remit money subject to the annual cap.

Select the correct answer using the code given below:

a) 1 only  
b) 2 only  
c) Both 1 and 2  
d) Neither 1 nor 2

Solution: a.
Under the Liberalised Remittance Scheme, Authorised Dealers may freely allow remittances by resident individuals up to USD 2,50,000 per Financial Year (April-March) for any permitted current or capital account transaction or a combination of both. The Scheme is not available to corporates, partnership firms, HUF, Trusts, etc. The Scheme is available to all resident individuals including minors.
2. Which one of the following statements is incorrect?
   a) The Nominal Effective Exchange Rate is a single ‘index’ for the exchange rate of a domestic currency against other currencies.
   b) The Real Effective Exchange Rate is interpreted as the quantity of domestic goods required to purchase one unit of a given basket of foreign goods.
   c) The Real Exchange rate is often taken as a measure of a country’s international competitiveness.
   d) None of the above.

Solution: d.

If one wants to plan a trip to London, she needs to know how expensive British goods are relative to goods at home. The measure that captures this is the real exchange rate – the ratio of foreign to domestic prices, measured in the same currency. If the real exchange rate is equal to one, currencies are at purchasing power parity. This means that goods cost the same in two countries when measured in the same currency. For instance, if a pen costs $4 in the US and the nominal exchange rate is Rs 50 per US dollar, then with a real exchange rate of 1, it should cost Rs 200 (50 × 4) in India. If the real exchange rate rises above one, this means that goods abroad have become more expensive than goods at home. The real exchange rate is often taken as a measure of a country’s international competitiveness.

Since a country interacts with many countries, we may want to see the movement of the domestic currency relative to all other currencies in a single number rather than by looking at bilateral rates. That is, we would want an index for the exchange rate against other currencies, just as we use a price index to show how the prices of goods in general have changed. This is calculated as the Nominal Effective Exchange Rate (NEER) which is a multilateral rate representing the price of a representative basket of foreign currencies, each weighted by its importance to the domestic country in international trade (the average of export and import shares is taken as an indicator of this).

The Real Effective Exchange Rate (REER) is calculated as the weighted average of the real exchange rates of all its trade partners, the weights being the shares of the respective countries in its foreign trade. It is interpreted as the quantity of domestic goods required to purchase one unit of a given basket of foreign goods.

Improvisation: TH

3. To calculate production cost in agriculture for the purpose of fixing Minimum Support Prices of crops, two broad concepts are used – A2 and C2. Which one of the following costs is included in calculation of both cost concepts?
   a) Imputed cost of family labour
   b) Interest on working capital
   c) Interest on fixed capital
   d) Rental value of owned land

Solution: b.
There are several cost concepts that the Commission for Agricultural Costs and Prices (CACP) considers while recommending MSPs of 23 crops.

- There are the costs the farmer actually pays out of his/her pocket for buying various inputs ranging from seeds to fertilisers to pesticides to hired labour to hired machinery (also depreciation of assets) or even leased-in land, which are all put under the cost A2 concept.
- However, in agriculture, farmers also use a lot of family labour and if their cost is imputed and added to cost A2, that concept is called cost A2+FL.
- But then there is also a comprehensive cost (cost C2), which includes not only imputed costs of family labour but also the imputed rent of owned land and imputed interest on owned capital.

It is 50 per cent margin over C2 which has been at the centre of the farmers’ demand, and also the M S Swaminathan Commission’s (National Commission on Farmers, 2006) recommendation.

IE:
Improvisation: TH:

4. Consider the following statements with reference to India’s foreign exchange reserves:
   1. It comprises of foreign currency assets only.
   2. Import cover recently declined to six months as the rupee has witnessed a significant fall in its value over the last few months.

Which of the statements given above is/are correct?
   a) 1 only
   b) 2 only
   c) Both 1 and 2
   d) Neither 1 nor 2

Solution: d.
The adequacy of foreign exchange reserves, measured by import cover, declined to 10.8 months in December 2017, from 11.3 months at the end of March 2017, the Reserve Bank of India (RBI) said in a biannual report on exchange management.

<table>
<thead>
<tr>
<th>Foreign Exchange Reserves (i+i+ii+iv)</th>
<th>US $ Billion</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Foreign Currency Assets (FCA)</td>
<td>380.7</td>
</tr>
<tr>
<td>ii. Gold</td>
<td>21.4</td>
</tr>
<tr>
<td>iii. Special Drawing Rights (SDR)</td>
<td>1.5</td>
</tr>
<tr>
<td>iv. Reserve Tranche Position (RTP)</td>
<td>2.5</td>
</tr>
</tbody>
</table>

TH:

5. Consider the following statements about the Authority for Advance Rulings:
   1. Its objective is to make a taxpayer aware of the treatment of a transaction in advance, so that there is full clarity at the outset itself.
   2. Such a mechanism has been introduced for the first time in India under the GST regime.
   3. Apart from the centralised authority, there are only four regional authorities.

Which of the statements given above is/are correct?
   a) 1 only
   b) 2 and 3 only
In a bid to avoid disputes with the revenue department, the provision of advance rulings was introduced under the GST law. It should be noted that this mechanism existed in the previous tax regime as well.

The objective of an advance ruling is to make a taxpayer aware of the treatment of a transaction in advance, so that there is full clarity at the outset itself. However, rising instances of contradictory verdicts on similar issues given by advance ruling authorities of various states is defeating the very purpose of the rulings.

Further, so far since implementation, more than 50 advance rulings have been filed and in most cases the decision has been in favour of the revenue department, say tax experts.

Media reports state that the government is planning to revamp the advance ruling mechanism and may consider setting up either a centralized authority or four regional authorities. But there is no clarity on the timeline as yet. Presently, there is one Advance Ruling Authority (as also the Appellate Authority) in every State.

6. In India, different derivatives instruments are permitted and regulated by
   1. Reserve Bank of India
   2. Securities and Exchange Board of India
   3. Insurance Regulatory and Development Authority

Select the correct answer using the code given below:
   a) 1 only
   b) 1 and 2
   c) 2 only
   d) 2 and 3

Solution: b.

In India, different derivatives instruments are permitted and regulated by various regulators, like Reserve Bank of India (RBI), Securities and Exchange Board of India (SEBI) and Forward Markets Commission (FMC; now merged with SEBI). Broadly, RBI is empowered to regulate the interest rate derivatives, foreign currency derivatives and credit derivatives.

Definition:- A derivative is a financial instrument:
   a) whose value changes in response to the change in a specified interest rate, security price, commodity price, foreign exchange rate, index of prices or rates, a credit rating or credit index, or similar variable (sometimes called the 'underlying');
   b) that requires no initial net investment or little initial net investment relative to other types of contracts that have a similar response to changes in market conditions; and
   c) that is settled at a future date.
In the news (TH): Currency derivatives are exchange-based futures and options contracts that allow one to hedge against currency movements. Simply put, one can use a currency future contract to exchange one currency for another at a future date at a price decided on the day of the purchase of the contract. In India, one can use such derivative contracts to hedge against currencies like dollar, euro, U.K. pound and yen. Corporates, especially those with a significant exposure to imports or exports, use these contracts to hedge against their exposure to a certain currency.

RBI PDF;

7. Consider the following statements:
   1. The GST Council is India’s first experience at a cooperative-federalism based decision-making authority.
   2. The 122nd constitution amendment bill and all legislations enabling the GST were passed unanimously by the Parliament.

Which of the statements given above is/are correct?
   a) 1 only
   b) 2 only
   c) Both 1 and 2
   d) Neither 1 nor 2

Solution: c.
“To develop a consensus, we passed the Constitution amendment enabling the GST unanimously. All legislations enabling the GST were passed unanimously. The rules were put before the GST Council. The have been approved unanimously. We have held 27 meetings of the GST Council so far where every decision has been taken by consensus and unanimity. All the rates are fixed through consensus on the recommendation of the Rates Committee. Whenever there are contrarian views in the Council, a representative Group of Ministers of the State is constituted to work out a via media and we try to evolve consensus one way or the other. I do realise that the delicate federal balance in India has to be maintained. The GST Council is India’s first experience at cooperative-federalism based decision-making authority. We cannot afford to risk a failure and, therefore, it is functioning as to arouse confidence amongst all States. The meetings have always been consensus based. The only area where unanimity seems to be lacking is the television bites that some Ministers’ give after the meeting, which may be necessary for their own political positon. I am willing to live with the experience of a healthy debate and unanimity within the Council and a show of dissent outside the Council meetings."

PIB;

8. Sometimes in the news, ‘Anchor Investors’ are most appropriately associated with
   a) Initial Public Offerings
   b) Startups
   c) Small and Medium Enterprises
   d) Foreign Portfolio Investors

Solution: a.
Anchor investors are institutional investors who are offered shares in an IPO a day before the offer opens. As the name suggests, they are supposed to ‘anchor’ the issue by agreeing to subscribe to shares at a fixed price so that other investors may know that there is demand for the shares offered. Each anchor investor has to put a minimum of ₹10 crore in the issue. SEBI introduced the concept of anchor investors in IPOs in 2009.
In the news (TH): SEBI, in its board meeting held recently, decided that the minimum anchor investor size would be reduced from ₹10 crore to ₹2 crore for SME IPOs. Merchant bankers say that while the appetite for SME IPOs is steadily increasing among institutional investors, anchor portion was an issue due to the individual base minimum requirement of ₹10 crore.

9. Which among the following countries' military expenditure is nearly 2% of their GDP?
   1. USA
   2. China
   3. Russia
   4. India

Select the correct answer using the code given below:
   a) 1, 2, 3 and 4
   b) 2 and 4 only
   c) 2 and 3 only
   d) 3 and 4 only

Solution: b.
The most appropriate answer is option ‘b’, viz. China and India.

Rough estimates:
USA: 3.5%
Russia: 4.3%
China: 1.9%
India: 1.5% (The latest ratio of 1.49 per cent is, in fact, the second lowest since 1950.)
Pakistan: 3.5%

SIPRI PDF;
Improvisation: ToI; The Hindu;

10. The World Customs Organisation (WCO)
   1. Was established as an associate body to the World Trade Organisation.
   2. Has divided its membership into six regions, with India presently being one of the regional heads.
   3. Represents 193 customs administrations across the globe that collectively process approximately 99% of world trade.

Which of the statements given above is/are correct?
   a) 1 only
   b) 2 and 3 only
   c) 1 and 3 only
   d) 1, 2 and 3

Solution: b.
Statement 1 is wrong, but the WTO and WCO cooperate on certain issues such as trade facilitation.

- The WCO, established in 1952 as the Customs Co-operation Council (CCC) is an independent intergovernmental body whose mission is to enhance the effectiveness and efficiency of customs administrations.
• The CCC was initially a Customs Committee set up by a group of a few European Governments based on the principles of the GATT. The name ‘WCO’ was adopted in 1994 to reflect its status as a truly global intergovernmental institution.
• Today, the WCO represents 182 Customs administrations across the globe that collectively process approximately 98% of world trade.
• India’s Central Board of Indirect Taxes and Customs (CBIC) is the nodal body for the WCO; India recently became the vice-chair (regional head) of the Asia-Pacific region.

11. Consider the following statements:
1. As a fraction of GDP, expenditures on Research and Development (R&D) have been stagnant over the past two decades.
2. As a share of all R&D expenditure, public expenditure has reduced over the past two decades.
3. Unlike in most countries, the government in India is not just the primary source of R&D funding but also its primary user.

Which of the statements given above is/are correct?
   a) 1 and 2 only
   b) 2 only
   c) 1 and 3 only
   d) 1, 2 and 3

Solution: d.
India’s spending on R&D (about 0.6 percent of GDP) is well below that in major nations such as the US (2.8), China (2.1), Israel (4.3) and Korea (4.2). It is also unique in how dominant government is in carrying out R&D. In most countries, the private sector carries out the bulk of research and development even if government must play an import funding role. However, in India, the government is not just the primary source of R&D funding but also its the primary user of these funds. Even more, government expenditure on R&D is undertaken almost entirely by the central government.

<table>
<thead>
<tr>
<th>Year</th>
<th>Public Investment in R&amp;D</th>
<th>Private Investment in R&amp;D</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004-05</td>
<td>18078 (0.5%)</td>
<td>6039 (0.2%)</td>
<td>24117 (0.7%)</td>
</tr>
<tr>
<td>2008-09</td>
<td>32988 (0.5%)</td>
<td>14365 (0.2%)</td>
<td>47353 (0.7%)</td>
</tr>
<tr>
<td>2012-13</td>
<td>46886 (0.4%)</td>
<td>27097 (0.2%)</td>
<td>73983 (0.6%)</td>
</tr>
<tr>
<td>2016-17*</td>
<td>60869 (0.4%)</td>
<td>43995 (0.3%)</td>
<td>104864 (0.7%)</td>
</tr>
</tbody>
</table>

2017-18 Economic Survey Volume 1;
Improvisation: TH:

12. The mission of the ‘Ellen MacArthur Foundation’ is to
   a) Promote innovation with an exclusive focus on biomimicry.
   b) Accelerate the transition to a circular economy.
   c) Accelerate clean energy innovation.
d) None of the above.

Solution: b.

WRAP: A circular economy is an alternative to a traditional linear economy (make, use, dispose) in which we keep resources in use for as long as possible, extract the maximum value from them whilst in use, then recover and regenerate products and materials at the end of each service life.

Ellen MacArthur Foundation: Looking beyond the current "take, make and dispose” extractive industrial model, the circular economy is restorative and regenerative by design. Relying on system-wide innovation, it aims to redefine products and services to design waste out, while minimising negative impacts. Underpinned by a transition to renewable energy sources, the circular model builds economic, natural and social capital.

Improvisation: TH:

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13. Which one of the following statements is incorrect?
   a) India’s investment levels in Africa have been on a consistent downward trajectory since 2010-11.
   b) Chinese investment levels in Africa have been on a consistent upward trajectory since 2010-11.
   c) The total value of India-Africa trade has shown a slump in recent years.
   d) In value terms, India exports less to Africa than it imports.
14. Consider the following statements about the Inter-Creditor Agreement:
   1. Under it, if two-third of the lenders in terms of aggregate exposure approve, then the resolution plan is binding on all the lenders.
   2. It was framed under the aegis of the RBI.
   3. Public, private and foreign banks have signed it.
   4. NBFCs are not allowed to be a part of this agreement.
Which of the statements given above is/are correct?
   a) 1, 2 and 3 only
   b) 1 and 3 only
   c) 2 and 4 only
   d) 1, 2, 3 and 4

Solution: b.
The agreement, known as Inter-Creditor Agreement (ICA) was framed under the aegis of the Indian Banks’ Association and follows the recommendations of the Sunil Mehta Committee on stressed asset resolution.

Currently 24 public, private and foreign banks have signed the inter-creditor agreement under Sashakt to resolve stressed assets. The idea behind Project Sashakt is to ensure the operational turnaround of the banks and stressed companies so that the asset value is retained.

NBFCs can, and are also expected to, sign the agreement.

The “Sashakt” plan will help alleviate the problems associated with

- Mob justice
- Crude oil imports
- Fake Indian Currency Notes
- Bad loans

Solution: d.

The inter-creditor agreement is aimed at the resolution of loan accounts with a size of ₹50 crore and above that are under the control of a group of lenders. It is part of the “Sashakt” plan approved by the government to address the problem of resolving bad loans.

The Sunil Mehta Committee, set up to look into the faster resolution of stressed assets, had recommended a bank-led resolution process and a five-pronged strategy to resolve stressed assets called Project Sashakt.
16. As per the RITES Report of 2014 on “Integrated National Waterways Transportation Grid”, the cost of transportation of freight
   1. By highways is nearly twice that of railways.
   2. By railways is nearly twice that of inland water transport.
Select the correct answer using the code given below:
   a) 1 only
   b) 2 only
   c) Both 1 and 2
   d) Neither 1 nor 2
Solution: a.

The Minister informed that reduced transportation cost is an important factor among others for development of National Waterways. As per RITES Report of 2014 on “Integrated National Waterways Transportation Grid”, the cost saving in transportation of goods through Inland Water Transport (IWT) mode is as under:-

<table>
<thead>
<tr>
<th>Mode (Rs/TKm)</th>
<th>Railways</th>
<th>Highways</th>
<th>IWT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freight</td>
<td>1.36</td>
<td>2.50</td>
<td>1.06</td>
</tr>
</tbody>
</table>

**PIB;**

**Category – Geography**

1. Lake Titicaca, one of less than twenty ancient lakes on earth, is situated between
   a) Paraguay and Argentina
   b) Uganda and Tanzania
   c) Peru and Bolivía
   d) Zambia and Zimbabwe
Lake Titicaca is the largest freshwater lake in South America and the highest of the world's large lakes. Titicaca is one of less than twenty ancient lakes on earth, and is thought to be there million years old. Lake Titicaca sits 3 810 m above sea level and is situated between Peru to the west and Bolivia to the east.

TH: UNESCO Tentative List;

2. ‘Suhali’, recently in the news, is most appropriately related to
   a) The world’s largest ever documented iceberg.
   b) The ozone hole.
   c) Non-stop circumnavigation of the globe.
   d) Elephant poaching in Africa.

Solution: c.

Commander AbhilashTomy of the Indian Navy is all set to head off on a unique voyage. The officer is the only invitee from Asia to participate in the prestigious Golden Globe Race (GGR) that commences from Les Sables d’Olonne harbour in France today. The participants are required to sail around the world, single-handed and non-stop. The uniqueness of the race is that boat designs and technology newer than 1968 is not permitted, hence use of Global Positioning System (GPS), satellite communication, navigational aids, etc is forbidden.

The Golden Globe Race is being conducted by Sir Robin Knox Johnston of UK to commemorate 50 years since the world’s first solo non-stop circumnavigation undertaken by him in 1968 onboard the Indian
built boat, Suhaili. Commander Abhilash Tomy is sailing on a replica of Suhaili, an indigenously built sailing vessel called the ‘Thuriya’.

PIB

3. Consider the following pairs:
Southern Cape – Located in country
1. Cape of Good Hope – South Africa
2. Cape Horn – Argentina
3. Cape Leeuwin – New Zealand
Which of the pairs given above is/are correctly matched?
   a) 1 only
   b) 2 and 3
   c) 1 and 3
   d) 1 and 2

Solution: a.
- Cape Horn refers to the steep rocky headland on Hornos Island, Tierra del Fuego Archipelago in southern Chile. It is located off the southern tip of mainland South America.
- Cape Leeuwin is the most south-westerly mainland point of the Australian continent, in the state of Western Australia.

Improvisation: PIB;
GGR Route;

4. The ‘Workshop on Greenhouse Gas Inventories in Asia (WGIA)’, the sixteenth edition of which is being hosted by India, is an initiative of
   a) Japan
   b) Intergovernmental Panel on Climate Change
   c) International Energy Agency
   d) Ozone Secretariat

Solution: a.
WGIA is an initiative of Government of Japan to improve the quality of Greenhouse Gas Inventories of Asian countries by building capacities through training and exchange of experience. A reliable and robust inventory is the backbone of climate action. Such efforts will contribute towards meeting the requirements towards enhanced reporting and transparency as required under the Convention and its Paris Agreement.

15 countries including Brunei, Cambodia, China, India, Indonesia, Japan, Republic of Korea, Lao PDR, Malaysia, Mongolia, Myanmar, Philippines, Singapore, Thailand and Vietnam are WGIA members and around 100 GHG inventory experts from these countries participated along with representatives from UNFCCC, IPCC, FAO and other specialized agencies. India is hosting WGIA for the first time.

PIB;

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Clarification (Regarding the origin of Polo): The game of polo is often referred to as the game of kings, combining horsemanship with speed and stamina. The modern game originated in the tiny north-
eastern Indian state of Manipur. Manipuri legend says that Lord Marjing, the chieftain of the Chenglei tribe, introduced the game of sagolkangjei or horse hockey, widely regarded as the predecessor of modern day polo. It is not clear when exactly Manipuris started playing the game but some records indicate that it was as early as the first Century. The traditional game attracted the attention of British colonial rulers in the 19th Century, who were fascinated by the horsemanship of the riders and the speed and endurance of the ponies.

There are many theories regarding how polo as a game evolved over the centuries. Several polo historians have given credit to Lt Joseph Ford Sherer of the British army’s Sylhet Light Infantry for transforming the traditional sagolkangjei into modern polo sometime around 1859. From then on, polo caught the imagination of the nobility and the British army who took the game to the west.

5. A hydrous magnesium silicate mineral, it is an important ingredient for making ceramics, paint, paper, roofing materials, plastics, rubber, foot powders, a variety of cosmetics and many other products. A form of this mineral is known as soapstone, which can easily be carved and thus has been used to make ornamental and practical objects for thousands of years. Most people are familiar with this mineral in the form of
   a) Gypsum
   b) Asbestos
   c) Talcum powder
   d) Bhasma

Solution: c.

In the news (BBC): The mineral talc in its natural form contains asbestos and does cause cancer, however, asbestos-free talc has been used in baby powder and other cosmetics since the 1970s. The studies on asbestos-free talc have so far given contradictory results.

Geology.com (Talc): Most people are familiar with the mineral talc. It can be crushed into a white powder that is widely known as "talcum powder." This powder has the ability to absorb moisture, absorb oils, absorb odor, serve as a lubricant, and produce an astringent effect with human skin. These properties make talcum powder an important ingredient in many baby powders, foot powders, first aid powders, and a variety of cosmetics.

6. The Kabaw Valley is nearest to which one of the following towns of Northeast India?
   a) Moreh
   b) Walong
   c) Dhing
   d) Tawang

Solution: a.

“The BJP had earlier blamed Manipur’s boundary problem with Myanmar on Jawaharlal Nehru for not claiming the Kabaw Valley (in Myanmar) during demarcation in 1947.”

Moreh is a border town in Manipur; All other towns mentioned in the options belong to other northeastern states.
7. The Purvanchal expressway, the foundation stone for which was laid recently by the Prime Minister, will link
   a) Dehradun with Bareilly
   b) National Capital Region with Lucknow
   c) Lucknow with Ghazipur
   d) Patna with Kolkata

Solution: c.
The 340-km-long Purvanchal Expressway, stretches from the State capital to Ghazipur on the eastern fringes bordering Bihar. The six-lane road will pass through Barabanki, Faizabad, Ambedkarnagar, Amethi, Sultanpur, Azamgarh and Mau before ending in Ghazipur.

PIB; TH;

8. Which of the following statements is/are correct?

1. Colombo is a coastal city in western Sri Lanka.
2. Trincomalee is a coastal city located along the same latitude as Colombo.
3. Mattala is a town located near the coastal town of Hambantota.

Select the correct answer using the code given below:

a) 1 and 2 only
b) 2 and 3 only
c) 1 and 3 only
d) 1, 2 and 3

Solution: c.
These towns/cities are of interest for India for the following reasons (a question could be asked in this manner too): Key Indian projects are located here – the proposed joint venture to run the Mattala airport (‘A’ in the image) in the island’s Southern Province; an LNG terminal near Colombo, and the joint development project of the oil storage facility in the eastern port town of Trincomalee.
9. The ‘Pemberton Line’ and the ‘Johnstone Line’ are related to the boundary between India and
a) Sri Lanka
b) Nepal
c) Myanmar
d) China
Solution: c.

In the medieval ages, Manipur and Burmese kings often wrested the valley from each other until the
British defeated the Burmese and signed the Treaty of Yandaboo in 1826. But the valley was returned to
Burma in the second treaty of 1834 and a boundary line between British India and Burma was drawn by
Captain R.B. Pemberton. The Pemberton Line had left out certain restive Kuki areas that were included
in a rectified boundary in 1881 called Johnstone Line. The boundary was redrawn again in 1896 to have
38 pillars and be known as Maxwell or Pemberton-Johnstone-Maxwell Line.

10. Under the Bharatmala Pariyojana programme,
1. Five new national corridors will be built.
2. Over 500 districts in the country will be linked by national highways.
3. Feeder routes, economic corridors, and border roads will be constructed.
Select the correct answer using the code given below:
   a) 1 and 2 only
   b) 2 and 3 only
   c) 1 and 3 only
   d) None of the above
Solution: b.
Fifty new national corridors will be built; the programme will help connect 550 districts in the country
through NH linkages; National corridors, feeder routes, economic corridors, coastal roads, greenfield
expressways and border roads will be constructed. Deadline for the first phase of the scheme is 2022.

11. Consider the following statements about the Expanding Universe Hypothesis:
1. Edwin Hubble first theorised that the universe was expanding.
2. According to this hypothesis, the universe has been expanding for nearly fourteen billion years
   before the present.
Which of the statements given above is/are correct?
   a) 1 only
   b) 2 only
   c) Both 1 and 2
   d) Neither 1 nor 2
Solution: b.
The most popular argument regarding the origin of the universe is the Big Bang Theory. It is also called
expanding universe hypothesis. Edwin Hubble, in 1920, provided evidence that the universe is
expanding. As time passes, galaxies move further and further apart. You can experiment and find what does the expanding universe mean.

**Google Doodle:** Most people have heard of the Big Bang theory, but fewer recognize the name Georges Lemaître, the man who came up with the hypothesis that transformed our understanding of astrophysics. Lemaître was a Belgian Catholic priest who proposed that the universe began as a single primordial atom, which he referred to as the “Cosmic Egg”… Lemaître’s 1927 paper theorizing that the universe was expanding was soon substantiated by Edwin Hubble’s observations, which were published in 1929.

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12. The execution and coordination of the ‘National Monsoon Mission’ is the responsibility of
   a) National Disaster Response Force, Ministry of Home Affairs
   b) Indian Institute of Tropical Meteorology, Ministry of Earth Sciences
   c) Department of Agricultural Research and Education, Ministry of Agriculture and Farmers’ Welfare
   d) ENVIS Centre (Environmental Information System), Ministry of Environment, Forest and Climate Change

Solution: b.

The accurate prediction of monsoon rainfall is a basic need for the nation but has remained a challenge over the decades. Ministry of Earth Sciences (MoES), Government of India has launched ‘National Monsoon Mission’ (NMM) with a vision to develop a state-of-the-art dynamical prediction system for monsoon rainfall on different time scales. MoES has bestowed the responsibility of execution and coordination of this mission to the Indian Institute of Tropical Meteorology (IITM), Pune. For this national mission, IITM is collaborating with NCEP (National Centres for Environmental Predication, USA), other MoES organisations and various academic institutions/organizations.

MoES: Monsoon Mission;
PIB

13. The official history of Earth has a new chapter – and we are in it. Called the ‘Meghalayan Age’ (within the Holocene epoch), its onset was marked by
   a) Dramatic warming that ended the most recent glacial period about 11,500 years ago.
   b) Abrupt cooling, attributed to vast volumes of freshwater from melting glaciers running into the oceans and disrupting ocean currents.
   c) A mega-drought that crushed a number of civilisations worldwide.
   d) The beginning of Industrial revolution.

Solution: c.

Geologists have classified the last 4,200 years as being a distinct age in the story of our planet. They are calling it the Meghalayan Age, the onset of which was marked by a mega-drought that crushed a number of civilisations worldwide.

We currently live in what is called the Holocene Epoch, which reflects everything that has happened over the past 11,700 years - since a dramatic warming kicked us out of the last ice age. But the Holocene itself can be subdivided, according to the International Commission on Stratigraphy (ICS). It is the official keeper of geologic time and it proposed three stages be introduced to denote the epoch’s upper, middle and lower phases.
These all record major climate events. The Meghalayan, the youngest stage, runs from 4,200 years ago to the present. It began with a destructive drought, whose effects lasted two centuries, and severely disrupted civilisations in Egypt, Greece, Syria, Palestine, Mesopotamia, the Indus Valley, and the Yangtze River Valley. It was likely triggered by shifts in ocean and atmospheric circulation.

The middle phase of the Holocene will be referred to as the Northgrippian, and runs from 8,300 years ago up to the start of the Meghalayan. The onset for this age was an abrupt cooling, attributed to vast volumes of freshwater from melting glaciers in Canada running into the North Atlantic and disrupting ocean currents. The oldest phase of the Holocene - the exit from the ice age - will be known as the Greenlandian.

See image: A portion of an Indian stalagmite (from Meghalaya) that defines the beginning of the Meghalayan age.

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14. The image of which one of the following UNESCO World Heritage Sites of India is not to be found on the reverse of any new banknote denominations?
   - a) Stone chariot, Hampi
   - b) Padmapani painting, Ajanta caves
   - c) Rani Ki Vav, Patan
   - d) Red Fort, Delhi

Solution: b.

10 – Sun Temple, Konark;
50 – Stone chariot, Hampi;
100 – Rani ki Vav, Patan;
200 – Sanchi Stupa;
15. The Bosporus or Bosphorus strait unites
   1. Black Sea
   2. Sea of Marmara
   3. Azov Sea
   4. Aegean Sea

Select the correct answer using the code given below:
   a) 1 and 2
   b) 1 and 4
   c) 2 and 3
   d) 2 and 4

Solution: a.

Bosporus, also spelled Bosphorus, strait unites the Black Sea and the Sea of Marmara and separates parts of Asian Turkey (Anatolia) from European Turkey.

16. Which one of the following handicrafts has been accorded the Geographical Indication tag and also belongs to the state of Jammu and Kashmir?
   a) Khatamband
   b) Kani shawl
   c) Phulkari
   d) Paper machie

Solution: c.
Apart from the three mentioned in the options, other J&K handicrafts accorded GI tags include:
- Pashmina
- Sozani craft
- Walnut wood carving
- Hand-knotted carpet

Registered GIs: IPIndia;
Improvisation: TH;

17. Some of the National Waterways (NWs) in the country are already operational/navigable and are being used for transportation. **Not** to be found among these NWs is
   a) National Waterway 10 (Amba river)
   b) National Waterway 16 (Barak river)
   c) National Waterway 27 (Mandovi river)
   d) National Waterway 100 (Tapi river)

Solution: b.
Don’t spend time mugging up these tables; just glance through the first table – click [HERE](#); these include: NW 1, NW 2, NW 3, NW 4, NW 10, NW 85, NW 27, NW 68, NW 111, NW 9, NW 100, NW 97.

18. Recently in the news, the ‘New Southern Policy’ is aimed at deepening of ties between
   a) India and the island-nations of the Indian Ocean
   b) South Korea and Southeast Asia
   c) USA and South America
   d) China and the South Asia, including the Indian subcontinent and Southeast Asia

Solution: b.
South Korea’s new policy is aimed at deepening ties with Southeast Asia, as the North Asian economic powerhouse seeks to curb its reliance on traditional trading partners like China and the United States.

The “New Southern Policy” aims to better connect South Korea to the Association of Southeast Asian Nations (ASEAN) grouping and expand the economic influence of Asia’s fourth-largest economy in the region home to more than half a billion people.

Efforts have been made to link India’s Act East Policy and the New Southern Policy by the leaders of the two countries.

[Reuters];
In the news: TH1; TH2;

19. With which of the following countries does Vietnam share borders?
   1. Cambodia
   2. Laos
   3. Myanmar
   4. Thailand

Select the correct answer using the code given below:
   a) 1, 2 and 3
   b) 1 and 2 only
c) 3 and 4 only

d) 1, 2 and 4

Solution: b.

India and Vietnam have set a target of bilateral trade at USD 15 billion by 2020.

Improvisation: PIB; MEA: India-Vietnam

Map: britannica;

20. Which one of the following African countries does not open out to the Indian Ocean?
   a) Kenya
   b) Tanzania
   c) Malawi
   d) Mozambique

Solution: c.

**Mainland** African countries that open out to the Indian Ocean from North to South – Somalia, Kenya, Tanzania, Mozambique and South Africa.

In the news (TH): India’s security and defence cooperation with Africa is mainly limited to maritime cooperation in the form of anti-piracy operations off the coast of Somalia, deployment of Indian forces to UN peacekeeping missions in Africa, regular shipping visits, and joint-naval patrolling in the Western Indian Ocean Region. These are mainly with Tanzania, Kenya, Mozambique, and the Indian Ocean island countries Mauritius, the Seychelles, Madagascar and Comoros.
21. Which one of the following Geographical Indications is best related to the scent “petrichor” and the molecule “geosmin” produced by a bacteria “Streptomyces”?

   a) Nashik valley wine  
   b) Mysore sandal soap  
   c) Ganjamkewdarooh  
   d) Kannauj perfume

Solution: d.

First named by two Australian researchers in the 1960s, “petrichor” it refers to the warm, earthy fragrance we experience when rain hits dry ground (after a long period) is produced by bacteria.

When you’re saying you smell damp soil, actually what you're smelling is a molecule being made by a certain type of bacteria. That molecule, geosmin, is produced by Streptomyces. Present in most healthy soils, these bacteria are also used to create commercial antibiotics. Drops of water hitting the ground cause geosmin to be released into the air, making it much more abundant after a rain shower.

Isabel Bear and RG Thomas, the researchers who first named the scent petrichor, found that as early as the 1960s it was being captured to sell as a scent called "mittika attar" in Uttar Pradesh, India.

Registered GIs;  
Improvisation: BBC;
22. The Grand Ethiopian Renaissance Dam, one of the world’s largest when built, will dam the river
   a) Zambezi
   b) Blue Nile
   c) Shibeli
   d) Atbara

Solution: b.
Once completed, in three years, it will be Africa’s largest hydropower dam, standing some 170m tall. The
dam is located in the Benishangul region, a vast, arid land on the border with Sudan, some 900km north-
west of the capital Addis Ababa.

23. If you want to see *Platanistagangetica minor* in its natural habitat, which one of the following is the
   best place to visit?
   a) Upper Ganga River
   b) Keoladeo National Park
   c) Beas Conservation Reserve
   d) DeeporBeel

Solution: c.
The Indus dolphin, *Platanistagangeticaminor*, is one of two subspecies of freshwater dolphins found in the Indian subcontinent. The other, the Gangetic dolphin, *Platanistagangeticaga* *ngetica*, is found in the Ganga-Brahmaputra river basin. The Indus River dolphins, that had “gone extinct in India in the 1930s”, had been “discovered” again in the Beas in 2007.

**WWF**: WWF-India, in partnership with the Department of Forests and Wildlife Preservation, Punjab conducted the first ever organised Indus River Dolphin Survey in May 2018 across a 185km stretch of the river Beas (Beas Conservation Reserve).

Based on the direct counts, after correcting for dolphins that were missed by the survey, the final estimate of the population of Indus River Dolphins in the Beas River stands at 5 – 11 individuals. Although the population of the species is small, its presence in the Beas river above the Harike barrage for 70 years, indicates no decline in population of the species. The presence of a young calf is also a positive sign and indicates a population that is large enough to be viable.

**IUCN; TH:**

24. The Earth Overshoot Day has been accelerating steadily, from October 15 thirty years ago to September 30 two decades back to August 15 in 2008. A few days ago, it was declared that the overshoot day arrives on August 1 this year. Which one of the following best sums up the cause for this “acceleration”?

a) Consumerism  
b) Climate change  
c) Overpopulation  
d) Poverty

Solution: a. The most appropriate answer is option ‘a’ and not ‘c’. Consumerism, in the derogatory sense of the term, refers to the preoccupation of society with the acquisition of consumer goods.

“The Earth Overshoot Day (determined by the Global Footprint Network) marks the point at which our plant is unable to regenerate any further in a year... we have in recent times indulged in an orgy of consumption in the name of bringing prosperity and well being to all... we have given little thought to the fact that resources of our plant are finite and need to be replenished if we are to sustain our pursuit of a good life... in order to lead a saner life in a more stable world, the economic thinking that drives much of our reckless consumption needs to make a moral distinction between wants and needs. There is more to life than gross domestic product and the growth that has become the unquestioned god of economic policy..”

**TH:**

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**Category – Ecology & Environment**

1. According to IUCN, the NilgiriTahr has been categorised on its Red List as

a) Near Threatened  
b) Vulnerable  
c) Endangered
d) Critically Endangered

Solution: c.

IUCN justification (IUCN): Listed as Endangered because its population size is estimated to number fewer than 2,500 mature individuals, there is an observed continuing decline in the number of mature individuals, and no subpopulation contains more than 250 mature individuals.

In the news (TH): The antics of the sure-footed Nilgiritahr are a treat to watch, but these endangered wild mountain goats – found only in high altitudes in India’s Western Ghats — could be losing their footing with increasing climate change. Even under moderate scenarios of future climate change, tahrs could lose approximately 60% of their habitats from the 2030s on, predict scientists in their study in Ecological Engineering, an international journal that emphasises the need for ecological restoration.

2. The KalakkadMundanthurai Tiger Reserve is situated in
   a) Kerala
   b) Karnataka
   c) Tamil Nadu
   d) Andhra Pradesh

Solution: c.

It is a tiger reserve in Tamil Nadu.

ENVIS Centre on Wildlife and Protected Areas;
Source: Same TH article (Q2);

3. Of the following list, the most cost-effective and environment-friendly fuel is
   a) Biogas
   b) Natural gas
   c) LPG
   d) Traditional firewood stove

Solution: a.
4. The Taj Trapezium Zone Authority has been established under
   a) The Environment (Protection) Act, 1986
   b) The Air (Prevention and Control of Pollution) Act, 1981
   c) The Water (Prevention and Control of Pollution) Act, 1974
   d) None of the above; it is an ad-hoc body established by the Supreme Court.
   Solution: a.
   It has been established under the Environment (Protection) Act, 1986.

CPCB: The Central Pollution Control Board delineated the Taj Trapezium Zone (which is in the form of a trapezium of area 10,400 sq.km.) on the basis of the weighted mean wind speed in twelve directions from Agra to Mathura and Bharatpur. The boundaries of the zone were made keeping in mind the effect of any pollution source in this zone on the critical receptor - The Taj Mahal. This area was declared as an “Air Pollution Protection Area.” There was a ban on new units of “High Polluting Nature” & the expansion of the existing units was not to be permitted.

MoEFCC: Extension of TTZ Authority tenure; MoEFCC order;

In the news: TH;

5. Consider the following statements about the Potential Fisheries Zone (PFZ) Advisories issued by the Indian National Centre for Ocean Information Services (INCOIS):
   1. This service is rendered only during the monsoon season.
   2. Advisories are provided in native languages in the form of both maps and text.
   3. Advisories are disseminated via various modes including television and radio.
   Which of the statements given above is/are correct?
   a) 1 and 2 only
   b) 2 and 3 only
   c) 3 only
   d) 1, 2 and 3
   Solution: b.
   PFZ serve as a proxy for potential shoals of fish aggregation in the Indian waters.
Utilizing the remotely sensed data available from various satellites, INCOIS provides these advisories to the fishermen on a daily basis, throughout the year except during the periods of Marine Fishing ban imposed by Government of India and adverse sea state conditions such as Cyclones, tsunamis etc.

- Divided over 14 sectors, these advisories are generated for each sector in the form of PFZ Maps and text (in native languages of each sector). The PFZ Maps contains information on the major landing centers, bathymetry and the location of PFZ (latitude and longitude information). To guide the fishermen on the probable shifts in PFZ, the wind speed and direction information is also incorporated on the PFZ maps.
- For the comfort of fishermen, the PFZ maps as well as the PFZ text are also provided in the native languages of each sector. The PFZ Text provides the information on location (latitude, longitude), the depth at PFZ location and the distance and direction from easily identifiable prominent sites on the coast like fishing landing centre, light houses.
- These multi-lingual PFZ advisories are disseminated via various modes viz. telephone, fax, e-mail, website, doordarshan, radio, news media, mobile services/ mobile applications, and under funded projects to universities and partner NGOs.

Feedback collected from fishermen indicates that the catch in the PFZ area is substantially higher when compared to the other areas. PFZ advisories have been found to be more beneficial to artisanal, motorised and small mechanised sector fishermen engaged in pelagic fishing activities, thereby reducing the searching time which in turn result in the saving of valuable fuel oil and also human effort.

PFZ; Improvisation: PIB;

6. Which one of the following statements helps us understand what is known as the ‘Wood Wide Web’?
   a) Trees secretly talk to and share resources with each other.
   b) Bringing internet connectivity to the remotest places on earth for inclusive and equitable development.
   c) Some wild spiders can spray webs in one long continuous flow that can reach upto 25m in length.
   d) None of the above.

Solution: a.

Trees do this using a network of fungi that grow around inside their roots. The fungi provide the tree with nutrients and in return they receive sugars. Scientists have found that this connection runs far deeper than first thought. By plugging into the fungal network, trees can share resourced with each other. The system has been nicknamed the Wood Wide Web.

The relationship between these mycorrhizal fungi and the plants they connect is now known to be ancient (around four hundred and fifty million years old) and largely one of mutualism—a subset of symbiosis in which both organisms benefit from their association.

For more details, refer: BBC; New Yorker;
7. The fossil of a baby snake, the tail of a feathered dinosaur, two wings from birds that lived alongside dinosaurs, an ancient arachnid and a haul of prehistoric frogs – all have been recently found preserved in amber for around 99 million years. These recent finds are from
   a) Nepal
   b) Myanmar
   c) Bhutan
   d) India

   Solution: b.
   Myanmar is seen as a treasure trove of exciting fossil discoveries from the Cretaceous period, between 145 and 66 million years ago.

   For instance, Kachin State in north-eastern Myanmar has been producing amber for 2,000 years. But because of the large quantity of insects preserved in the deposits, over the last 20 years it has become a focus for scientists who study ancient arthropods.

   BBC;

8. The quadrennial tiger census – the almost 500-day long process this time – has been designed by the
   a) Wildlife Institute of India
   b) Centre for Wildlife Studies
   c) Wildlife Trust of India
   d) Tiger Watch

   Solution: a.
   The quadrennial survey will cover almost 4,00,000 sq km of tiger habitats in India. This time, the almost 500-day-long process began in December 2017 across different parts of the country. Designed by scientists at the Wildlife Institute of India (WII), it involves four distinct phases.

   Almost 15,000 pairs of camera ‘traps’ are being placed across protected areas and reserve forests in 18 States — all to count the elusive national animal. Photographs of the big cats and indirect tiger signs will contribute to the fourth All India Tiger Estimation, undertaken to ascertain India’s current tiger population. But scientists will arrive at the final number only by the first quarter of 2019, for the process is lengthy, the science complex, and the implementation of the exercise challenging.

   TH;

9. Consider the following statements about ATREE, an organisation sometimes mentioned in the news:
   1. It is the world’s oldest global human rights non-profit organisation that works to eliminate all forms of slavery and slavery-like practices.
   2. It is headquartered in India.

   Which of the statements given above is/are correct?
   a) 1 only
   b) 2 only
   c) Both 1 and 2
   d) Neither 1 nor 2

   Solution: b.
   Ashoka Trust for Research in Ecology and the Environment (ATREE) is a global non-profit organisation which generates interdisciplinary knowledge to inform policy and practice towards conservation and sustainability. Its head office is in Bangalore.
For over two decades, ATREE has worked on social-environmental issues from local to global policy levels. ATREE envisions a society committed to environmental conservation and sustainable and socially just development.

ATREE’s mission is to generate rigorous interdisciplinary knowledge for achieving environmental conservation and sustainable development, to enable the use of this knowledge by policy makers and society, and to train the next generation of environmental leaders.

Source/Improvisation: TH;

### Category – National Institutions

1. One of the first steps involved in issuing an INTERPOL Red Notice is for the police of a member country to request its issuance via the country’s National Central Bureau. India’s National Central Bureau is the
   a) Narcotics Control Bureau
   b) Intelligence Bureau
   c) Central Bureau of Investigation
   d) National Investigation Agency

Solution: c.

India is one of the oldest members of Interpol, having joined the organization in 1949. The Central Bureau of Investigation (a Federal/Central investigating agency functioning under the Central Government, Department of Personnel & Training) is designated as the National Central Bureau of India. The Director of the Central Bureau of Investigation is the ex-officio Head of the NCB-India. All matters relating to the NCB India are, however, dealt with by the Ministry of Home Affairs, Government of India.

CBI: INTERPOL India; TH;

2. Consider the following statements about the National Testing Agency, to be set up as a society registered under the Indian Societies Registration Act, 1860:
   1. NTA would initially conduct those entrance examinations which are currently being conducted by the CBSE.
   2. The entrance examinations will be conducted in computer-based mode.
   3. In order to serve the requirements of the rural students, NTA will establish a network of test practice centres for them.

Which of the statements given above is/are correct?
   a) 1 only
   b) 2 and 3 only
   c) 1 and 2 only
   d) 1, 2 and 3 only

Solution: d.

The NTA will conduct entrance examinations for higher educational Institutions from next academic sessions onwards starting with UGC-NET Examination in December this year. The JEE (Main) and NEET (UG) will be conducted twice before admissions in the next academic session.
The examinations for all candidates will be conducted in computer based mode only (Starting from next exam UGC-NET exam).

NTA will establish a network of test practice centres for students of rural areas so that everyone will have an opportunity to practice before the exam. Schools/engineering colleges with computer centres would be identified and kept open on Saturdays/Sundays. Any student can use the facility free of charge.

Source/improvisation: PIB; From 2017: PIB; TH;  

3. The first MOVE Summit will be hosted in India by
   a) NITI Aayog
   b) UN Habitat
   c) World Economic Forum
   d) International Renewable Energy Agency

Solution: a.  
To showcase innovation and build a platform to shape the future of mobility, NITI Aayog will host the first Move Summit 2018. It will be the first Global Mobility Summit of its kind, with over 1,200 expected participants from across the world including Government leadership, Industry leaders, Research Organizations, Academia, Think Tanks and Civil Society Organisations.

The Summit has been organised along key ‘tracks’ to anchor debate and deliberations on towards preparing a collective mobility agenda. The six tracks or themes for the Summit will focus on:
   a) Asset Utilization and Services;  
   b) Comprehensive Electrification;  
   c) Alternative Energy;  
   d) Reinventing Public Transit;  
   e) Logistics and Goods Transport;  
   f) Data Analytics and Mobility.

MOVE Summit;  
PIB;  

4. The ‘Women Entrepreneurship Platform’, a first of its kind, unified access portal which brings together women from different parts of India to realize their entrepreneurial aspirations, is under the aegis of
   a) SIDBI (Small Industries Development Bank of India)
   b) RashtrapatiBhavan
   c) FICCI (Federation of Indian Chambers of Commerce and Industry)
   d) NITI Aayog

Solution: d.  
The idea of the Platform was first mooted by Shri Amitabh Kant, CEO, NITI Aayog who announced the setting-up of a Women Entrepreneurship Platform in NITI Aayog at the conclusion of the 8th Global
Entrepreneurship Summit (GES) held in Hyderabad in 2017 with an overarching theme of ‘Women first, prosperity for all’.

As an enabling platform, WEP is built on three pillars - Iccha Shakti, Gyaan Shakti & Karma Shakti where-

- Iccha Shakti represents motivating aspiring entrepreneurs to start their business;
- Gyaan Shakti represents providing knowledge and ecosystem support to women entrepreneurs to help them foster entrepreneurship; and
- Karma Shakti represents providing hands-on support to entrepreneurs in setting-up and scaling up businesses.

In addition to providing services such as free credit ratings, mentorship, funding support to women entrepreneurs, apprenticeship and corporate partnerships; WEP will encourage entrepreneurs to share their entrepreneurial journeys, stories & experiences to nurture mutual learning.

About WEP;

Improvisation: PIB;

5. RITES Ltd. is a Government of India enterprise established under the aegis of
   a) Ministry of Railways
   b) Ministry of Road Transport and Highways
   c) Ministry of Shipping
   d) Ministry of Finance

Solution: a.
RITES Ltd., a Government of India Enterprise was established in 1974, under the aegis of Indian Railways. RITES is incorporated in India as a Public Limited Company under the Companies Act, 1956. RITES Ltd., an ISO 9001:2008 company, is a multi-disciplinary consultancy organization in the fields of transport, infrastructure and related technologies. RITES is internationally recognised as a leading consultant with operational experience of over 55 countries.

RITES Ltd.;
Improvisation: PIB;

Category - State Affairs

1. The main spectacle of the ‘Behdienkhlam’ – an annual cultural festival – happens in the town of Jowai located in the state of
   a) Arunachal Pradesh
   b) West Bengal
   c) Sikkim
   d) Meghalaya

Solution: d.
Most popular festival of the Jaintia tribe, Behdienkhlam is celebrated in the month of July for good health, property and bumper harvest. Although Behdienkhlam is celebrated all over the Jaintia hills, the main spectacle happens in the town of Jowai, about 64 km away from Shillong. The non-Christian ‘Pnar’ people who believe either in the traditional faith of ‘Niamtre’ or Hinduism observe this festival.
2. Which one of the following sports/games did not originate in India?
   a) Badminton  
   b) Carrom  
   c) Polo  
   d) Go

Solution: d.
Go is an ancient Chinese board game considered to be one of the world’s most complex games, and is much more challenging for computers than chess. The game was in the news as Google DeepMind’s AlphaGo defeated the World Go champion in a 3-match series in 2017.

Badminton, Carrom, Polo, Chess, Kabaddi, Snakes and Ladders (GyanChaupar) are some of the games that originated in India.

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Category - Science & Technology

1. Consider the following statements about Agni-V:
   1. It has a range which enables it to reach most parts of China.
   2. Along with the Prithvi, the Agni series of missiles are part of India’s nuclear weapons delivery systems.

Which of the statements given above is/are correct?
   a) 1 only  
   b) 2 only  
   c) Both 1 and 2  
   d) Neither 1 nor 2

Solution: c.
India’s longest-range ballistic missile, Agni-V, will be inducted into the nuclear arsenal very soon, according to official sources. Agni-V is an Intermediate Range Ballistic Missile (IRBM) with a range of over 5,000 km and can reach most parts of China.

The Agni series of missiles constitute the backbone of India’s nuclear weapons delivery, which also includes the Prithvi short-range ballistic missiles and fighter aircraft. The submarine-based nuclear arsenal, which assures second strike capability in the face of the proclaimed No-First-Use policy, is taking shape.

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2. Which of the following statements about moons are incorrect?
1. They can be found in the Goldilocks zone.
2. Most moons start out as dwarf planets or asteroids orbiting their star, only later to be captured by planets with a much stronger gravitational pull.
3. When a large body collided with the early Earth, the resulting debris collected to create our Moon.
4. Several exomoons have been discovered till date.

Select the correct answer using the code given below:

a) 1 and 2 only
b) 1 and 3 only
c) 2 and 3 only
d) 2 and 4 only

Solution: d.

The Goldilocks zone is the region around a star where liquid water can exist at a planet’s surface.

BBC: Most moons are thought to form from the leftover ingredients of their parent planet. In our Solar System, Jupiter’s large family of moons likely formed from the accumulation of this material when the planet was young.

Moons can also start out as dwarf planets or asteroids orbiting their star, only later to be captured by planets with a much stronger gravitational pull. This is thought to be the case for Triton, which orbits backwards around its host planet Neptune, and may previously have lived in the Kuiper Belt - a distant zone of the Solar System beyond Neptune’s orbit.

Our own Moon formed via a giant impact. When another large body collided with the early Earth, the resulting debris collected to create the Moon.

BBC: A team of astronomers has potentially discovered the first known moon beyond the Solar System. The signal was detected by NASA’s Kepler Space Telescope; astronomers now plan to carry out follow-up observations with Hubble in October.

3. ‘cVigil’ is an Android-based mobile application recently launched by the

   a) Election Commission
   b) Central Board of Direct Taxes
   c) Ministry of Consumer Affairs
   d) Ministry of Law and Justice

Solution: a.

The Election Commission recently launched an Android-based mobile application named ‘cVigil’ for citizens to share proof of malpractices by political parties, their candidates and activists when the Model Code of Conduct is in place in the run-up to polls.

The app also facilitates sharing of geo-tagged photographic and video evidence without disclosing the sender’s identity. The uploaded information will be transmitted to the control room from where the field units or flying squads mapped on a Geographic Information System will be immediately alerted for further action.

In case the complainant does not opt for anonymity, the person will also get an action-taken report within about 100 minutes.
4. Consider the following pairs:
   Biofuel – manufactured using
   1. 1G – Food crops
   2. 2G – Specially engineered energy crops such as algae
   3. 3G – Non-food produce like organic waste
Which of the pairs given above is/are correctly matched?
   a) 1 only
   b) 2 and 3 only
   c) 3 only
   d) 1, 2 and 3
Solution: a.

*IDSA*: Broadly speaking, there are four generations of biofuels. First generation biofuels are manufactured using food crops like sugarcane, maize and oilseed. Second generation biofuels are produced from non-food produce like organic waste, wood and food crop waste. Third generation biofuels are “based on improvements in the production of biomass” by taking “advantage of specially engineered energy crops such as algae”. Fourth generation biofuels are based on more advanced technology which aims to capture and store carbon dioxide (CO2) at every production stage. Currently, first generation biofuels are the most common type of biofuels used, and second, third and fourth generation biofuel technology are still being developed.

Improvisation: *TH:*

5. What is the implication of the recently successful ‘Pad Abort’ test (PAT)?
   a) India will achieve self-reliance in launching communication and navigation satellites.
   b) India is closer to its ambition of sending Indians to space.
   c) The cost of launching satellites will reduce as rockets need not be rebuilt.
   d) None of the above
Solution: b.

*TH*: ISRO inched a small step closer to its ambition of sending Indians to space by conducting the first ‘pad abort’ test recently. The test proves that the agency can bail out future astronauts with their capsule in case of an early danger to them at the launch pad.

*PIB*: ISRO carried out a major technology demonstration today, the first in a series of tests to qualify a Crew Escape System, which is a critical technology relevant for human spaceflight. The Crew Escape System is an emergency escape measure designed to quickly pull the crew module along with the astronauts to a safe distance from the launch vehicle in the event of a launch abort.

6. Consider the following statements about the International Centre for Automotive Technology (ICAT):
   1. It sets international emission standards for automobiles that countries are free to adopt.
   2. India is a member.
   3. NATRiP (National Automotive Testing and R&D Infrastructure Project) is ICAT’s India wing.
Which of the statements given above is/are correct?
   a) 1 and 2 only

b) 2 and 3 only

c) 1 and 3 only

d) None of the above

Solution: d.

The International Centre for Automotive Technology (ICAT) is a division of NATRiP implementation society (NATIS), under the administrative control of Ministry of Heavy Industries & Public Enterprises, Government of India.

It is the first of new world class centres established under NATRiP with the main objective of carrying out Research & Development besides extending homologation (approve a car, engine, etc. for sale in a particular market) facilities in the field of Automotive Engineering.

ICAT is one of the prime testing agencies recognized by the Government of India as one of the accredited ‘Type Approval and Homologation’ agencies in India under Central Motor Vehicle Rules (CMVR) and has also been recognized as Scientific and Industrial Research Organization (SIRO) by the Department of Scientific and Industrial Research (DSIR), since Feb 2010, by BIS for Tyre Testing, Safety Glasses and by Central Pollution Control Board (CPCB) for emission and noise testing of generator sets.

PIB;

7. Where in India are sulphur dioxide hotspots situated?
   a) South India
   b) West India
   c) North India
   d) East India

Solution: d.

Sulphur dioxide hotspots across the globe

Source: Copernicus Sentinel Data 2018/TROPOMI/BIRA-IASB/DLR
What are the different SO2 sources?
Smelting is clearly one big emitter. The gas is driven off as metal ores that also contain sulphur compounds are heated to high temperature. Other major contributors include the burning of coal and oil. Again, these include sulphur in their composition, which will be emitted as SO₂ when the fossil fuels are burned - unless the gas is caught, or “scrubbed”, in some way.

The map above represents six months of Europe’s Sentinel 5P-Tropomi data.

8. CIPET: Centre for Skilling & Technical Support (CSTS) comes under the
   a) Ministry of Chemicals and Fertilisers
   b) Ministry of Heavy Industries and Public Enterprises
   c) Ministry of Food Processing Industries
   d) Ministry of Electronics and Information Technology

Solution: a.

In the news (PIB): Today CIPET operates from 31 locations spread across the country and CIPET: CSTS, Dehradun will be the 32nd centre.

CIPET, under the Department of Chemicals & Petrochemicals, Government of India, offers Diploma, Post Diploma, Post Graduate Diploma, Undergraduate, Post Graduate & Doctoral programmes in the entire gamut of plastics engineering and technology. With a strong alumni base of about 1,00,000 Professionals, CIPET has emerged as an Apex plastics technology institution, not only in India but also in Asia.

9. The DNA Technology (Use and Application) Regulation Bill, 2018
   1. Provides for the setting up of DNA laboratories in every district.
   2. Is primarily intended to facilitate the creation of an India-specific human genome data bank.

Which of the statements given above is/are correct?
   a) 1 only
   b) 2 only
   c) Both 1 and 2
   d) Neither 1 nor 2

Solution: d.

- The primary intended purpose for enactment of "The DNA Technology (Use and Application) Regulation Bill" is for expanding the application of DNA-based forensic technologies to support and strengthen the justice delivery system of the country.
- The utility of DNA based technologies for solving crimes, and to identify missing persons, is well recognized across the world.
- By providing for the mandatory accreditation and regulation of DNA laboratories, the Bill seeks to ensure that with the proposed expanded use of this technology in the country, there is also the assurance that the DNA test results are reliable and the data remain protected from misuse or abuse in terms of the privacy rights of our citizens.
Forensic DNA profiling is of proven value in solving cases involving offences that are categorized as affecting the human body (such as murder, rape, human trafficking, or grievous hurt), and those against property (including theft, burglary, and dacoity). The aggregate incidence of such crimes in the country, as per the statistics of the National Crime Records Bureau (NCRB) for 2016, is in excess of 3 lakhs per year. Of these, only a very small proportion is being subjected to DNA testing at present. It is expected that the expanded use of this technology in these categories of cases would result not only in speedier justice delivery but also in increased conviction rates, which at present is only around 30% (NCRB Statistics for 2016).

PIB;

10. An international conference ‘RISE 2018’, recently in the news, is related to
   a) HIV/AIDS
   b) Technology
   c) Human rights
   d) Anti-terrorism

Solution: b.
In the news (TH): From tattooing to dress rentals to security solutions, there is an astounding variety of Indian startup dreams searching for funding at ‘RISE 2018’, Asia’s largest tech event currently on in Hong Kong.

Riseconf; TH2;

11. What is unique about The European Organisation for Nuclear Research’s (CERN) technology ‘Medipix’, recently in the news?
   a) Based on artificial intelligence, it assists doctors in detecting cancers in very early stages.
   b) A light-based communications device built at nano-scale, it enables the creation of cheap and hack-proof communications networks.
   c) It works like a camera, capturing 3-D colour X-ray images.
   d) It is a large electromagnetic net that will reduce the incidence of the International Space Station being hit by small space debris.

Solution: c.
Scientists in New Zealand have performed the first ever 3-D, colour X-ray on a human, using a technique that promises to improve the field of medical diagnostics, according to Europe’s CERN physics lab which contributed the imaging technology. CERN is the European Organization for Nuclear Research, one of the world’s largest and most respected centres for scientific research. The new device, based on the traditional black-and-white X-ray, incorporates particle-tracking technology developed for CERN’s Large Hadron Collider, which in 2012 discovered the elusive Higgs Boson particle. “This colour X-ray imaging technique could produce clearer and more accurate pictures and help doctors give their patients more accurate diagnoses,” said a CERN statement. The CERN technology, dubbed Medipix, works like a camera detecting and counting individual sub-atomic particles as they collide with pixels while its shutter is open. This allows for high-resolution, high-contrast pictures. According to the CERN, the images very clearly show the difference between bone, muscle and cartilage, but also the position and size of cancerous tumours, for example.

**TH:**

12. Recently in the news, ‘TPOXX’ or ‘tecovirimat’ is a small-molecule antiviral treatment for
   a) Nipah  
   b) Measles  
   c) Smallpox  
   d) AIDS  

   Solution: c.

   **TH:** Smallpox, a contagious and sometimes fatal infectious disease, was declared eradicated in 1980 by the World Health Organization. However, there have been longstanding concerns about smallpox. “To address the risk of bioterrorism, Congress has taken steps to enable the development and approval of countermeasures to thwart pathogens that could be employed as weapons. This approval provides an important milestone in these efforts. This new treatment affords us an additional option should smallpox ever be used as a bioweapon,” said the FDA Commissioner.
TPOXX (tecovirimat) is a small-molecule antiviral treatment for smallpox, the first therapy specifically approved for this indication.

13. This system’s radars can pick up an incoming object up to a 1,000 kilometres away, track several dozen incoming objects simultaneously, distribute the targets to appropriate missile systems and ensure a high success rate. The command post detects, tracks and identifies the target. Then the tracked object is taken over by manned anti-aircraft missile systems of the complex, which launch the counter attack. This system refers to the
   a) 9K22 Tunguska
   b) Barak 8
   c) SPYDER
   d) SA-21 Growler

Solution: d.

S-400 Triumf is one of the world’s most advanced air defence systems that can simultaneously track numerous incoming objects — all kinds of aircraft, missiles and UAVs — in a radius of a few hundred kilometres and launch appropriate missiles to neutralise them. It is now bang in the middle of the ongoing stand-off between Russia and Western nations. Among the countries under pressure from the U.S. not to buy this weapon is India.

The development of S-400 (NATO name SA-21 Growler) was started towards the end of the Soviet Union in the 1980s and was disrupted by the collapse of the Communist bloc in 1991. The system is specifically designed to detect and destroy an array of targets — strategic bombers; aircraft used for electronic warfare, early warning, and reconnaissance; fighter jets such as F-16 and F-22; and incoming missiles such as Tomahawk. Russian forces have deployed at least half-a-dozen S-400 regiments, at least two of them are for the protection of Moscow. Russia has also deployed at least two S-400 systems in Syria, much to the concern of observers who fear the system could contribute to a global conflict breaking out in Syria. A single unit, consisting of eight launchers, 112 missiles and command and support vehicles, costs at least $400 million (Rs. 2,500 crore).

TH:

14. Consider the following statements in the context of the 21st century’s longest total lunar eclipse:
   1. The moon will be at perigee.
   2. The moon moves at a relatively slower speed at perigee.

Which of the statements given above is/are correct?
   a) 1 only
   b) 2 only
   c) Both 1 and 2
   d) Neither 1 nor 2

Solution: d.

In this particular eclipse, the Moon will pass through the central part of the Earth’s umbral shadow. Furthermore, the Moon will be at apogee, means at farthest from the Earth in its orbit, on July 27 and will be moving at a slower speed in its orbit. This slower moving full Moon will take longer time and greater distance of Earth’s umbral shadow cone to travel, making it the longest duration of total eclipse of this century.
15. The Vikas engine, recently in the news, powers the
   a) Light Combat Aircraft
   b) BrahMos supersonic cruise missile
   c) INS Arighat
   d) GSLV Mk-III

Solution: d.

All three satellite launch vehicles of ISRO (PSLV, GSLV, GSLV Mk-III) are set to add muscle to their spacecraft lifting power in upcoming missions this year. The space agency has improved the thrust of the Vikas engine that powers all of them.

16. Electronic Voting Machines are manufactured by
   1. Bharat Electronics Ltd., Ministry of Defence
   2. Electronic Corporation of India Ltd., Department of Atomic Energy
   3. Central Scientific Instruments Organisation, Council for Scientific and Industrial Research,
      Ministry of Science and Technology

Select the correct answer using the code given below:
   a) 1 only
   b) 1 and 2
   c) 2 and 3
   d) 1 and 3

Solution: b.

ECI FAQ (Q8): EVMs have been devised and designed by Election Commission in collaboration with two Public Sector undertakings viz., Bharat Electronics Ltd., Bangalore and Electronic Corporation of India.
LTD., HYDERABAD AFTER A SERIES OF MEETINGS, TEST-CHECKING OF THE PROTOTYPES AND EXTENSIVE FIELD TRIALS. THE EVMs ARE NOW MANUFACTURED BY THE ABOVE TWO UNDERTAKINGS.

Improvisation: PIB;

17. “IMMobilisation of High Level Waste into Vitrified Borosilicate Glasses” is a process compulsorily employed in the management of
   a) Nuclear waste
   b) Construction debris
   c) Municipal solid waste
   d) Space debris

Solution: a.

Radioactive wastes are generated during various operations of the nuclear fuel cycle. Mining, nuclear power generation, and various processes in industry, defence, medicine and scientific research produce byproducts that include radioactive wastes.

Radioactive waste can be in gas, liquid or solid form, and its level of radioactivity can vary. The waste can remain radioactive for a few hours or several months or even hundreds of thousands of years. Depending on the level and nature of radioactivity, radioactive wastes can be classified as exempt waste, Low & Intermediate level waste and High Level Waste.

High level radioactive liquid waste (HLW) containing most (~99%) of the radioactivity in the entire fuel cycle is produced during reprocessing of spent fuel. The management of high level waste in the Indian context encompasses the following three stages:
   - Immobilisation of high level liquid waste into vitrified borosilicate glasses
   - Engineered interim storage of the vitrified waste for passive cooling & surveillance over a period of time, qualifying it for ultimate disposal.
   - Ultimate storage/disposal of the vitrified waste in a deep geological repository.

BARC: Nuclear Waste Management;
Improvisation: PIB;

18. ‘Pitch Black’, a biennial exercise to which India has sent fighter aircrafts for the first time, is hosted by
   a) Japan
   b) United Arab Emirates
   c) Australia
   d) South Korea

Solution: c.

TH: An Indian Air Force contingent of Su-30MKI fighter jets on Thursday departed for the multi-national exercise, Pitch Black, in Australia, scheduled from July 24 to August 18. This is the first time India is sending fighter aircraft for the biennial exercises hosted by the Royal Australian Air Force.

19. The term “Space Weather” generally refers to conditions on the Sun and in the
   1. Magnetosphere
2. Ionosphere
3. Thermosphere

Select the correct answer using the code given below:

a) 1 only  
b) 2 and 3 only  
c) 1, 2 and 3  
d) None of the above

Solution: c.

Everyone is familiar with changes in the weather on Earth. But “weather” also occurs in space. Just as it drives weather on Earth, the Sun is responsible for disturbances in our space environment. Besides emitting a continuous stream of plasma called the solar wind, the Sun periodically releases billions of tons of matter in what are called coronal mass ejections. These immense clouds of material, when directed towards Earth, can cause large magnetic storms in the magnetosphere and the upper atmosphere.

The term space weather generally refers to conditions on the Sun and in the solar wind, magnetosphere, ionosphere, and thermosphere that can influence the performance and reliability of space-borne and ground-based technological systems and can endanger human life or health.

*Living With a Star* (LWS) emphasizes the science necessary to understand those aspects of the Sun and space environment that most directly affect life and society. LWS missions target the linkages across the interconnected system with an ultimate goal of enabling a predictive understanding. *The first LWS mission is the Solar Dynamics Observatory (SDO), which was launched early in 2010.*

**NASA: Living With a Star Programme;**  
**Improvisation: TH:**  

20. Which one of the following is not an artillery gun?

a) Dhanush  
b) K9 Vajra T  
c) Nidar  
d) M777 Howitzer

Solution: c.

**From 2016 (BBC):** “Two years after India launched Nirbheek, a handgun pitched as the country's "first gun for women", the Ordnance Factory Board has launched a similar gun which it says is India’s lightest gun. The new .22-calibre revolver is named Nidar, it weighs a mere 250g - that's half of .32-calibre Nirbheek's 500g; and it costs 35,000 rupees - Nirbheek came with a steep price tag of 122,360 rupees.

In the news (th1; TH2): Dhanush is an upgraded version of the Swedish Bofors gun procured by India in the mid-1980s. In April 2017, the Indian engineering conglomerate Larsen & Toubro (L&T) and Hanwa Techwin of South Korea signed a contract to manufacture the K9 Vajra-T guns, customised from the original K9 Thunder gun. M777 ultra-light howitzers are being procured by India from the U.S.

21. Consider the following statements in the Indian context:

1. The mineral monazite is a major resource for rare earth elements.  
2. Beach sand deposits are an important source for supplies of rare earth elements.

Which of the statements given above is/are correct?
Atomic Minerals Directorate for Exploration and Research (AMD), a constituent unit of Department of Atomic Energy (DAE), has the mandate to identify, evaluate and augment mineral resources of uranium, thorium, niobium, tantalum, beryllium, lithium, zirconium, titanium, rare earths (containing uranium and thorium) and other beach sand minerals like garnet and sillimanite.

The resources of the minerals comprising BSM (Beach Sand Minerals) are given below:

- Thorium (as monazite) - 12.47 million tonne (1.12 million tonne ThO2)
  - The mineral monazite, containing ~ 55 - 60% total Rare Earth Elements (REE), is also the major resource for REE.
- Titanium (as ilmenite, leucoxene and rutile) - 682.30 million tonne
- Zirconium (as zircon) - 35.75 million tonne
- Garnet - 187.46 million tonne
- Sillimanite - 255.09 million tonne

One of the misconceptions about beach sand-mining is the assumption that it involves quarrying. This is patently false: Companies that operate in this field in southern Tamil Nadu, for instance, dredge only the top inch of beach sand. Any deeper, and they would be mining for silica, which is neither a rare earth mineral, nor of any use to the industry. The skimming is done every morning; each day, the sea deposits fresh layers of rare earth minerals on the beaches and by evening, much of it is washed away if not harvested.

To read in detail about the REE extraction sector: First Post (from 2016);
Source/Improvisation: PIB;

22. Consider the following statements:
   1. The existence of the phenomenon of “Gravitational Redshift” was first predicted by Sir Issac Newton.
   2. Gravitational Redshift occurs as particles of light – photons – climb out of a gravitational well like a black hole.
   3. There is no black hole in the Milky Way.
Which of the statements given above is/are correct?
   a) 1 and 2 only
   b) 2 only
   c) 2 and 3 only
   d) 1 and 3 only

Solution: b.

In the news (BBC; TH): The black hole at the centre of our galaxy has helped astronomers confirm a key prediction of Albert Einstein’s ideas. By observing a cluster of stars near the hole, they were able to confirm a phenomenon known as "gravitational redshift". It’s when the wavelength of light gets stretched out in response to a gravitational field. The result will help scientists better understand the physics of black holes.
The Very Large Telescope (VLT) in Chile found evidence for Einstein's prediction by observing a star, called S2, that passed through the intense gravitational field of Sagittarius A* - the huge black hole at the heart of the Milky Way.

The effect they observed, gravitational redshift, occurs as particles of light (photons) climb out of a gravitational well like a black hole. As they do, the light's wavelength gets drawn out. This shifts the wavelength to the red part of the light spectrum - hence "redshift".

Also, recently in the news (NPR, NASA): The supermassive black hole (Sagittarius A* - pronounced "Sagittarius A-star") lurking at the centre of our galaxy appears to have a lot of company, according to a new study that suggests the monster is surrounded by thousands of other black holes.

Additional Information (NASA): Astronomers believe that supermassive black holes lie at the centre of virtually all large galaxies, even our own Milky Way. Astronomers can detect them by watching for their effects on nearby stars and gas.

23. Scientists have mapped marine "wilderness" areas around the world for the first time. This team of researchers found that just 13.2% of the world's oceans could be classed as wilderness. Most of these areas fell within
   a) The Arctic, Antarctic and around Pacific Island Nations
   b) The Antarctic and Central Indian Ocean Basin
   c) The North Pacific Ocean and Central Indian Ocean Basin
   d) Marine Protected Areas (MPAs)

Solution: a.
"Wilderness" areas are regions minimally impacted by human activities such as fishing, pollution and shipping. Most such areas are presently found in international waters, away from human populations. It's a place where the environment and ecosystem is acting in basically an undisturbed way that's free from human activity.

Most of the areas the researchers defined as wilderness fell within the Arctic, Antarctic and around Pacific Island nations, or in the open ocean, where human activity is more limited. Despite their conservation status, MPAs appear to host just 4.9% of global marine wilderness.

Although fishing is one of the most significant direct impacts that humans can have on ocean ecosystems, many of the problems being caused originate on land. Runoff of nutrients from farming fertilisers, chemicals from poorly controlled industrial production, and the influx of plastic pollution from rivers are all disrupting ocean life.

Category – History

1. Jalalabad, recently in the news, is a city that handles much of its country's trade with India. Akbar started the modern town as early as the 1560s. This city is located in
   a) Pakistan
   b) Bangladesh
   c) Afghanistan
d) Tajikistan

Solution: c.

Jalālābād, formerly Jalālkot, town, eastern Afghanistan, on the Kābul River, at an altitude of 1,940 ft (590 m). It lies on the route from Kābul, the Afghan capital (110 mi [177 km] north-northwest), via the Khyber Pass to Peshāwar, Pakistan, and handles much of Afghanistan’s trade with Pakistan and India.

The site of Jalālābād has been occupied since the 2nd century bc, and Akbar (1542–1605), regarded as the greatest Mughal ruler of India, started the modern town as early as the 1560s.

In the news: The suicide attack in the eastern Afghan city of Jalalabad, which left at least 19 people dead, mostly from the minority Sikh and Hindu communities, is yet another warning from the Islamic State to the war-torn country’s dilapidated political and security apparatus.

2. Consider the following statements about Rabindranath Tagore:
   1. During his time, Tagore was at the forefront of the movement for folk revival in Bengal.
   2. The only poet who Tagore translated into English (apart from himself) is Kabir.

Which of the statements given above is/are correct?
   a) 1 only
   b) 2 only
   c) Both 1 and 2
   d) Neither 1 nor 2

Solution: c.

Ideas of nationalism also developed through a movement to revive Indian folklore. In late-nineteenth-century India, nationalists began recording folk tales sung by bards and they toured villages to gather folk songs and legends. These tales, they believed, gave a true picture of traditional culture that had been corrupted and damaged by outside forces. It was essential to preserve this folk tradition in order to discover one’s national identity and restore a sense of pride in one’s past. In Bengal, Rabindranath Tagore himself began collecting ballads, nursery rhymes and myths, and led the movement for folk revival.

In the news: “As an academic working on Rabindranath Tagore, I have participated in events remembering him: a commemoration of Tagore’s 150th birth anniversary in 2011 and the 100th anniversary, in 2013, of his winning the Nobel Prize. There have been lectures and conferences linked to these not only in India but across the world resulting in a number of important publications. The only poet who Tagore translated into English (apart from himself) is Kabir.”

The Sense of Collective Belonging, Nationalism in India, India and the Contemporary World, Class 10 NCERT;

3. Who among the following was not a professional painter in oriental art in the context of modern Indian history?
   a) Thomas Daniell
   b) Nathaniel Halhead
   c) Johann Zoffany
William Daniell

Solution: b.

“..Englishmen like Henry Thomas Colebrooke and Nathaniel Halhed were also busy discovering the ancient Indian heritage, mastering Indian languages and translating Sanskrit and Persian works into English. Together with them, Jones set up the Asiatic Society of Bengal, and started a journal called Asiatick Researches.”

In the news (TH): “Describing the collection as an important piece of oriental art, Mr. Sengupta said that the drawings were all the more interesting as they were not made by professional painters of the era, such as Thomas Daniell and William Daniell and Johan Zoffany…”

Chapter: The changing world of visual arts, Class 8 Our Pasts–II;

4. Maharaja BirBikram Kishore Manikya was the last ruling maharaja of
   a) Tripura
   b) Manipur
   c) Mizoram
   d) Sikkim

Solution: a.

Britannica: The last ruling maharaja of Tripura, BirBikram Kishore Manikya, ascended the throne in 1923, and before his death in 1947, he settled Tripura’s accession to the newly independent country of India.

In the news (PIB): Agartala Airport was constructed in 1942 on the land donated by Maharaja BirBikram Manikya Kishore. As a visionary ruler, who had travelled extensively across the globe, he took several steps for the all-round development of Tripura. Due to his initiative, an aerodrome at Agartala was constructed that has evolved as the second busiest airport in the North East and provides crucial air connectivity to Tripura. Hence, it is apt to rename the Agartala Airport after his name, which will be a befitting tribute to Maharaja BirBikram Manikya Kishore.

5. Murshidabad today is a town in the state of
   a) Uttar Pradesh
   b) Bihar
   c) West Bengal
   d) Madhya Pradesh

Solution: c.

Before the advent of British, the city of Murshidabad was the capital of Bengal. It has a great significance in the Indian History as in 1757 the British defeated Siraj-ud-Daula in the Battle of Plassey, after which the entire nation was brought under the British Colonial Rule. Even after the conquest of Bengal by the British, Murshidabad remained for some time the seat of administration.

Improvisation: TH:
http://www.murshidabad.gov.in;
6. Maghar, where the saint-poet Kabir Das attained samadhi, is located in
   a) Bihar
   b) Uttar Pradesh
   c) Rajasthan
   d) Gujarat

Solution: b.
“... in eastern Uttar Pradesh, there is a place called Maghar. It is here that SantKabir Das ji attained Samadhi. Do you know why Kabir Das ji chose to go to Maghar? In those days it was believed that death in Maghar was a roadblock in one’s pathway to heaven. On the contrary, breathing one’s last in Kaashi was a guarantee for entry into heaven. Maghar was considered unholy but SantKabirdas never subscribed to that view. He toiled relentlessly to quell many such superstitions and evil social customs of his times. That is why he went to Maghar and chose to attain Samadhi there...”

PIB;

7. Topics that featured in this newspaper regularly were poor quality of sanitation and lack of road maintenance. Through the letters the editor solicited and published, this newspaper gave voice to Calcutta’s poor. It attacked corruption in the East India Company and in high echelons of society; it also exposed the problems of low pay for soldiers in the subaltern ranks of the Company’s army apart from the Company’s failed wars that came under its gaze. This newspaper was
   a) Bengal Gazette
   b) The India Gazette
   c) SamvadKaumadi
   d) The Orientalist

Solution: a.
The given extract refers to the Irishman James Augustus Hicky’s Bengal Gazette.

To read in slight detail about him and India’s first printed newspaper, refer: TH;

8. Called “the Temple Village”, Maluti has 60-odd surviving temples out of the original 108. These temples are examples of
   a) Kashmiri tradition of wooden buildings
   b) Dravida architectural order
   c) Bengal-style terracotta sculptural art
   d) Modheran artistic tradition

Solution: c.
The Maluti village – itself a blend of Santhali and Bengali culture – is situated in the Dumka district of the state of Jharkhand. A total of 108 temples, it is said, were built during 17th-19th century. The sixty-odd surviving temples are exquisite examples of Bengal-style terracotta art in sculpture and decorative detail.

The Indian Trust for Rural Heritage and Development (ITRHD) is an NGO devoted to preservation of Indian Heritage and Culture in Rural India and working in about 7 states of India.

Improvisation: PIB;
Page 4: ITRHD Brochure;