

# ACE

**Engineering Academy** 

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# 30 in 30 days for Feb/19 - Detailed solutions

# 01. Ans: (C)

# Exp:

- ➤ Indian Space Research Organisation at its Vikram Sarabhai Space Centre (VSSC) has developed cost effective battery technology.
- > It is a green alternative to fossil fuels.
- The technology is available for 1.5Ah, 50 Ah and 100 Ah cells.
- ➤ Lithium ion cells find large societal applications in Electric Vehicle transport and communication areas.
- ➤ ISRO is willing to offer the knowhow of this technology to suitable entrepreneurs / industries in India. Capable manufacturing industries interested in acquiring this knowhow.

#### 02. Ans: (B)

#### Exp:

- > Part V from Article 52 to 151 deals with The Union Executive
- > Chapter II of Part V deals with The Parliament
- > Article 110 and Article 111 deals with Legislative Procedure in Parliament
- Article 112, Article 116 & Article 117 deals with Financial Matters in House

## 03. Ans: (C)

- Foreign exchange reserves are assets held on reserve by a central bank in foreign currencies.
- These reserves are used to back liabilities and influence monetary policy.
- Foreign exchange reserves can include banknotes, deposits, bonds, treasury bills and other government securities.
- These assets serve many purposes but are most significantly held to ensure that a central government agency has backup funds if their national currency rapidly devalues or becomes all together insolvent.

# 04. Ans: (C)

#### Exp:

- ➤ In KS Puttaswamy case, a 5-member constitution bench of the Supreme Court led by Chief Justice Dipak Misra ruled that Aadhaar is mandatory for filing of income tax returns (ITR) and allotment of Permanent Account Number (PAN).
- > To buy a new SIM card, your telecom service provider cannot seek Aadhaar details from you.
- > Students of CBSE, NEET, and UGC also do not require Aadhaar number to appear in exams. Even schools cannot seek Aadhaar card for admissions.
- Addhaar card is however subsidies must for availing facilities of welfare schemes and government as it empowers the poor and marginalised.

## 05. Ans: (C)

# Exp:

- North Atlantic Treaty Organization (NATO), military alliance established by the North Atlantic Treaty (also called the Washington Treaty) of April 4, 1949, which sought to create a counterweight to Soviet armies stationed in central and eastern Europe after World War II.
- ➤ It includes the United States, most European Union members, Canada, and Turkey.
- > NATO's mission is to protect the freedom of its members. Its targets include weapons of mass destruction, terrorism, and cyber attacks.

# 06. Ans: (B)

#### Exp:

- > Repo Rate is the rate at which RBI lends money to commercial banks against the pledge of government securities whenever the banks are in need of funds to meet their day-to-day obligations.
- Reverse repo rate is the rate of interest offered by RBI, when banks deposit their surplus funds with the RBI for short periods. When banks have surplus funds but have no lending (or) investment options, they deposit such funds with RBI. Banks earn interest on such funds.
- > Cash Reserve Ratio (CRR) is the share of a bank's total deposit that is mandated by the Reserve Bank of India (RBI) to be maintained with the latter in the form liquid cash.
- > The Reserve Bank of India mandates every bank should have a specific liquid reserve in the form of cash or gold. It is called Statutory Liquidity Ratio.

## 07. Ans: (C)

# Exp:

> Pradhan Mantri Ujjwala Yojana (PMUY) started by India Government aims in providing free cooking gas (LPG) connection to poor

- > Over 6.31 crore connections have been provided since the launch of the scheme on May 1, 2016.
- ➤ The target is to provide LPG connections to 8 crore households before March 31, 2020.
- > Under this scheme LPG connection is issued in the name of the women member of the household.

# Exp:

As per the agriculture Census, the operational holdings are categorised in five size classes as follows:-

Sl. No.	Category	Size-Class
1	Marginal	Below 1.00 hectare
2	Small	1.00-2.00 hectare
3	Semi- Medium	2.00-4.00 hectare
4	Medium	4.00-10.00 hectare
5	Large	10.00 hectare and above

- > The operational holdings are also classified in three social groups, viz., Scheduled Castes, Scheduled Tribes and Others.
- The average size holding in India is 1.08 Hectors
- ➤ The state wise land holdings in India is as follows

Annexure referred in reply to part (a) & (b) of Lok Sabha Unstarred Question No. 261 due for Answer on 5.02.2019

# Statewise Average size of holdings for all Social Groups as per results of Agriculture Census 2015-16(Provisional)

S. No.	States/UTs	Average size of holdings(in Hectare
1	A & N Islands	1.78
2	Andhra Pradesh	0.94
3	Arunachal Pradesh	3.35
4	Assam	1.09
5	Bihar	0.39
6	Chandigarh	1.21
7	Chhattisgarh	1.25
8	D & N Haveli	1.38
9	Daman & Diu	0.35
10	Delhi	1.39
11	Goa	0.81
12	Gujarat	1.88
13	Haryana	2.22
14	Himachal Pradesh	0.95
15	Jammu & Kashmir	0.59
16	Jharkhand	1.17
17	Karnataka	1.35
18	Kerala	0.18
19	Lakshadweep	0.26
20	Madhya Pradesh	1.57
21	Maharashtra	1.35
22	Manipur	1.14
23	Meghalaya	1.29
24	Mizoram	1.25
25	Nagaland	5.06
26	Odisha	0.95
27	Puducherry	0.62
28	Punjab	3.62
29	Rajasthan	2.73
30	Sikkim	1.13
31	Tamil Nadu	0.75
32	Telangana	1.00
33	Tripura	0.49
34	Uttar Pradesh	0.73
35	Uttarakhand	0.85
36	West Bengal	0.76
	All India	1.08

# 09. Ans: (D)

#### Exp:

- ➤ Both the statements are correct
- ➤ On 13 February every year, UNESCO observes Word Radio Day
- ➤ 2019 will celebrate the 8th edition of World Radio Day.
- This day marks a time where people around the world celebrate radio and how it shapes our lives.
- Radio informs, transforms and unites us. It brings together people and communities from all backgrounds to foster positive dialogue for change. More specifically, radio is the perfect medium to counter the appeals for violence and the spread of conflict, especially in regions potentially more exposed to such realities.
- > On that basis, World Radio Day 2019 will celebrate the theme of "Dialogue, Tolerance and Peace".
- ➤ Radio programming can also build tolerance and surpass the differences separating groups by uniting them under common goals and causes, like ensuring education for one's children or addressing local health concerns.

## 10. Ans: (B)

# Exp:

- ➤ Prime Minister Shri Narendra Modi laid the foundation stone for the Sela Tunnel Project which is situated at Arunachal Pradesh.
- ➤ The Project costing Rs. 687 crore being constructed by the Border Roads Organisation (BRO) would be estimated to be completed in the next three years.
- ➤ It covers a total distance of 12.04 kms which consist of two tunnels of 1790 and 475 meters. Once completed this would result in:
  - a) All weather connectivity to Tawang and forward areas.
  - b) Reduction in more than one hour of travelling time from Tezpur to Tawang.
  - c) Travellers would be able to avoid the dangerous snow covered Sela top at a height of 13,700 feet.
- > All weather connectivity to Tawang would be a game changer for the local population ahead of Sela apart from the much required strategic edge for our security forces.

## 11. Ans: (C)

- ➤ In 2019, the International Labour Organization (ILO) marks 100 years of advancing social justice and promoting decent work.
- > It was created in 1919, as part of the **Treaty of Versailles** that ended World War I, to reflect the belief that universal and lasting peace can be accomplished only if it is based on social justice.

- ➤ The Organization has played a role at key historical junctures the Great Depression, decolonization, the creation of Solidarność in Poland, the victory over apartheid in South Africa and today in the building of an ethical and productive framework for a fair globalization.
- > The Constitution of the ILO was drafted in early 1919 by the Labour Commission, chaired by Samuel Gompers, head of the American Federation of Labour (AFL) in the United States.
- ➤ It was composed of representatives from nine countries: Belgium, Cuba, Czechoslovakia, France, Italy, Japan, Poland, the United Kingdom and the United States.
- The process resulted in a tripartite organization, the only one of its kind, bringing together representatives of governments, employers and workers in its executive bodies
- ➤ India, a Founding Member of the ILO, has been a permanent member of the ILO Governing Body since 1922.
- The first ILO Office in India started in 1928.
- > ILO's current portfolio in India centres around child labour, preventing family indebtedness employment, skills, integrated approaches for local socio-economic development and livelihoods promotion, green jobs, value-addition into national programmes, micro and small enterprises, social security, HIV/AIDS, migration, industrial relations, dealing with the effects of globalization, productivity and competitiveness, etc.

# 12. Ans: (A)

- > Both the statements are correct
- Following the success of the International Year of Pulses (IYP) 2016, World Pulses Day is proposed with an opportunity to heighten public awareness of the nutritional benefits of eating pulses.
- > Pulses are more than just nutritious seeds; they contribute to sustainable food systems and a #ZeroHunger world.
- > The IYP highlighted the role of pulses in sustainable food production aimed towards improving food security and nutrition.
- ➤ Under Resolution A/RES/73/251, the UN General Assembly (UNGA) designated 10 February as World Pulses Day to reaffirm the contribution of pulses for sustainable agriculture and achieving the 2030 Agenda.
- The UNGA has invited **FAO**, in collaboration with other organizations, to facilitate the observance of World Pulses Day.

## 13. Ans: (C)

# Exp:

- ➤ The CH-47F (I) Chinook is an advanced multi-mission helicopter that will provide the Indian armed forces with unmatched strategic airlift capability across the full spectrum of combat and humanitarian missions.
- > The helicopters will be assembled in Gujarat before they are ferried to Chandigarh, where they will be formally inducted into the Indian Air Force.
- The CH-47F (I) Chinook is a heavy lift, tandem rotor helicopter that serves armed forces of 19 countries. It will greatly enhance IAF's HADR (humanitarian assistance and disaster relief) capability.
- > The Chinook is an advanced multi-mission helicopter that will provide support to the Indian armed forces during disaster relief, medical evacuation, search and rescue missions, aircraft recovery and parachute drops.
- ➤ Chinook can carry goods and cargo weighing up to 9.6 tonnes. The cargo can include men and machines such as artillery guns and light armoured vehicles. Chinook is suited for operations in the Himalayas and has the capability to ferry heavy cargo like road construction equipment over difficult terrain.
- The Chinook contains a fully integrated, Digital Cockpit Management System, Common Aviation Architecture Cockpit and advanced cargo-handling capabilities.

# 14. Ans: (B)

## Exp:

- Abu Dhabi has included Hindi as the third official language used in its courts, alongside Arabic and English, as part of a move designed to improve access to justice
- The adoption of multilingual interactive forms for claim sheets, grievances, and requests, aims to promote judicial services in line with the Plan Tomorrow 2021, and increase the transparency of litigation procedures through the provision of bilingual forms which allow foreigners to know the litigation procedures, their rights, and duties without a language barrier.

## 15. Ans: (B)

- > DTAB is highest statutory decision-making body on technical matters related to drugs in the country.
- ➤ It is constituted as per the Drugs and Cosmetics Act, 1940. It is part of Central Drugs Standard Control Organization (CDSCO) in the Ministry of Health and Family Welfare.
- ➤ The Centre, recently in an notification has said that medical devices all implantable devices, CT Scan, PET and MRI equipment, defibrillators, dialysis machines and bone marrow separators will be treated as drugs for human beings with effect from April 1, 2020.

#### Exp:

- ➤ India is the part of "Multi Gold Cobra Gold Exercise"
- > Cobra Gold is joint theatre security cooperation (JTSC) exercise co-sponsored by Thailand and United States and conducted annually in the Kingdom of Thailand.
- > Cobra Gold is one of the largest theatre security cooperation exercises in the Indo-Pacific region and an integral part of the U.S. commitment to strengthen engagement in the region.
- Cobra Gold is an important element of the United States and participating nation's regional military to military engagement efforts seeking to maintain readiness, develop capabilities, and enhance security and stability in the Indo-Pacific region.

# 17. Ans: (C)

# Exp:

- > Ghumot, Goa's indigenous traditional percussion instrument made from an earthen vessel, will be notified as a heritage instrument of Goa.
- > The instrument was banned due to the use of the skin of the endangered monitor lizard for the drum membrane. In recent years, glumot makers have started using goat skin instead.
- ➤ Goa Chief Conservator of Forest Santosh Kumar said the ban is applicable to the use of any animal listed in the Wildlife (Protection) Act, 1972, and that the goat is not one of them.

# 18. Ans: (D)

- The MFN principle of the WTO states that each of the WTO member countries should "treat all the other members equally as 'most-favoured' trading partners." It leads to equal treatment amongst countries and ensures a more stable, predictable, reliable and competitive international trade.
- > MFN status is very desirable between trading partners because it allows each country the greatest access into the other's domestic markets without the hindrances of tariffs or quotas.
- That means it receives the lowest tariffs, the fewest trade barriers, and the highest import quotas (or none at all). It reduces the ill effects of trade protectionism.
- ➤ MFN status is critically important for smaller and developing countries for several reasons. It gives them access to the larger market. It lowers the cost of their exports since trade barriers are the lowest given. That makes their products more competitive.
- The country's industries have a chance to improve their products as they service this large market. Their companies will grow to meet increased demand. They receive the benefits of economies of scale. That, in turn, increases their exports and their country's economic growth.

- ➤ India has extended MFN status to member countries of WTO. As regards SAARC countries, Bangladesh, Maldives, Nepal, Pakistan and Sri Lanka are members of WTO and except the Pakistan, these countries have extended MFN status to India.
- India has extended MFN status to all these SAARC countries including Pakistan.

# 19. Ans: (A)

# Exp:

- ➤ District cooling systems produce chilled water, steam or hot water at a central plant and then pipe that energy out (either underground or over rooftops) to buildings for air conditioning, space heating and water heating. As a result, these buildings don't require their own chillers, air conditioners, boilers or furnaces.
- They are considered to be highly efficient to address each of the challenges like high Capital and operating costs, reliability, flexibility and environmental sustainability while meeting their comfort and process cooling and heating needs.
- > District cooling uses only 50% of primary energy consumption for cooling urban building n compared to other cooling systems. This also reduces carbon emissions.

# 20. Ans: (D)

- ➤ The Ministry of Labour and Employment had constituted an expert committee on 17th January 2017, under the Chairmanship Dr. Anoop Satpathy, Fellow, V. V. Giri National Labour Institute (VVGNLI) to review and recommend methodology for fixation of National Minimum Wage (NMW).
- The Expert Committee has submitted its report on "Determining the Methodology for Fixation of the National Minimum Wage" to the Government of India through the Secretary, Ministry of Labour and Employment on 14-02-2019.
- ➤ On the basis of the aforesaid approach, the report has recommended to fix the need based national minimum wage for India at INR 375 per day (or INR 9,750 per month) as of July 2018, irrespective of sectors, skills, occupations and rural-urban locations for a family comprising of 3.6 consumption unit.
- ➤ It has also recommended to introduce an additional house rent allowance (city compensatory allowance), averaging up to INR 55 per day i.e., INR 1,430 per month for urban workers over and above the NMW.
- For the purpose of estimating national minimum wages at regional levels it has grouped the states into five regions based on a composite index and have recommended region specific national minimum wages.

#### Exp:

- ➤ Iran has unveiled a homemade submarine that the nation says is capable of firing cruise missiles several hundred miles and staying more than 650 feet underwater for five weeks.
- > The submarine was unveiled one week after the 40th anniversary of the Islamic Revolution.
- ➤ The submarine includes surface-to-surface systems, torpedo launcher, advanced sonar, electrically powered propulsion, battle management systems, integrated electronic security and communications technology.

#### 22. Ans: (A)

# Exp:

- ➤ The formal declaration of Final Operational Clearance (FOC) of Light Combat Aircraft Tejas MK I for Indian Air Force (IAF) was held on 20<sup>th</sup> Feb., 2019.
- FOC involves addition of key capabilities to the Initial Operational Clearance (IOC) aircraft which are Beyond Visual Range Missile capabilities. Air-to-Air Refuelling, Air-to-Ground FOC earmarked weapons and general flight envelope expansion.
- > The RSD provides the capabilities, features and technologies that FOC standard Aircraft will have on Induction into IAF.
- The FOC standard Aircraft drawings have already been handed over to Hindustan Aeronautics Limited (HAL) to start production after incorporating key changes over the IOC standard Aircraft.
- ➤ Initial Operational Clearance (IOC) of the aircraft took place in the year 2013 and IOC standard Aircraft were inducted into IAF No. 45 Squadron, in July 2016. The IAF Squadron has since flown over

## 23. Ans: (B)

- Operation Digital Board
- > The Minister of Human Resource Development, Shri Prakash Javadekar launched Operation Digital Board to leverage technology in order to boost quality education in the country.
- The digital board will be introduced all over the country in government and government aided schools from class 9th onwards as well as in higher education institutions. The process will begin from the coming session of 2019.
- ➤ UGC will be the implementing agency for ODB in HEIs.

# 24. Ans: (C)

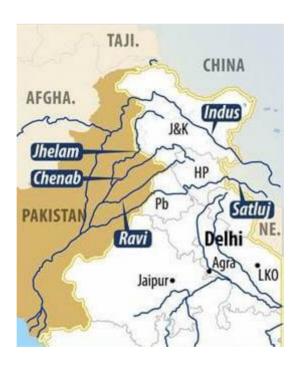
# Exp:

- A 'Festival of India in Nepal' has begun with the objective of familiarising the new generation of Nepal about the similarities between Nepal and India.
- > The festival was held from 19 February to 21 March has been organised in Kathmandu and other major cities of the country.
- The festival began with dance and drama of Lord Buddha. The festival comprises oratory contest, Sanskrit conference, dance and other cultural programmes.

# 25. Ans: (C)

# Exp:

- ➤ Shahpur-Kandi project is initiated by India on River Ravi at Pathankot district, Punjab, India.
- The Indus Water Treaty (IWT) is a water-distribution treaty between India and Pakistan signed on September 19, 1960.
- The treaty was signed by the then Prime Minister Jawaharlal Nehru and Pakistan's President Ayub Khan. It was brokered by the World Bank (International Bank for Reconstruction and Development).



# 26. Ans: (A)

- Article 110 of Part V of Indian Constitution deals with Annual Financial Statement.
- The Budget is presented to Lok Sabha on such day as the President may direct. The General Budget is presented in Lok Sabha by the Minister of Finance. The 'Annual Financial Statement' is laid on the Table of Rajya Sabha at the conclusion of the speech of the Finance Minister in Lok Sabha.

- The general discussions are held a day after the presentation of the Budget. The discussion is only a general examination of the budget. Voting does not take place at this stage.
- After the first stage of General Discussion is over, the House is adjourned for a fixed period. During this recess, the Departmentally Related Standing Committees scrutinise the estimates of different ministries expenditures proposed (called Demand for Grants). Once these Departmentally Related Standing Committees submit their reports, the Lok Sabha votes on these demands for grants. The Rajya Sabha can only discuss these demands but not vote on them.
- After demands for Grants are passed, they are consolidated into the Appropriation Bill. The Appropriation Bill authorises the Union Government to spend money from the Consolidated Fund of India. The Appropriation bill is then introduced and passed in the Legislature.
- The next task is to pass the "Finance Bill". The Finance is introduced every year to bring changes to taxation. The Finance Bill is to be passed by the Legislature and assented to by the President within 75 days of its introduction.

- ➤ India signed a 2011 deal with France worth Rs 17,547 crore to upgrade its fleet of 49 Mirage 2000aircraft to the 2000-5 standard with new glass cockpits, radars, missiles and self-protection suites
- The jet has nine weapon hard points -- five on the fuselage and two on each wing
- With a travel distance of 1,550 km, the aircraft can attain a maximum speed of Mach 2.2 (amounting to 2,336 kmph)



#### Exp:

A non military pre emptive strike means that a military target has not been hit by the Indian Air Force that carried out the strikes in the early hours of Tuesday. Hitting a military target would be construed as an act of war.

# 29. Ans: (C)

# Exp:

- ➤ PCA norms allow the regulator to place certain restrictions such as halting branch expansion and stopping dividend payment. It can even cap a bank's lending limit to one entity or sector. Other corrective actions that can be imposed on banks include special audit, restructuring operations and activation of recovery plan.
- The RBI can also supersede the bank's board, under PCA.
- ➤ There are two types of restrictions, mandatory and discretionary. Restrictions on dividend, branch expansion, director's compensation, are mandatory while discretionary restrictions could include curbs on lending and deposit.



## 30. Ans: (A)

- Anti-microbial resistance (AMR) poses a "really dangerous" challenge globally, and India and Sweden intend to boost cooperation to tackle it and signed an MOU
- ➤ When anti-microbial drugs are overused, AMR develops as micro-organisms such as bacteria, virus and fungi that become resistant to drugs.