

Que-1 The Union government is reviving its plan to replace the Press and Registration of Books Act (PRB), 1867, which regulates the printing presses and the newspapers in the country. Consider the following statements about this

1- The proposed bill, Registration of Press and Periodicals Bill, will bring under its ambit the digital media and news portals as well.

2- Digital news platforms will be asked to register themselves under Press Registrar General.

3- The PRB Act has provisions to impose a penalty on publishers for not printing the name of the printer in the newspaper or periodical or not making a declaration before the magistrate about operation of printing presses.

Which of the following given above is/are correct

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

Que-2 With reference to S-400 missile defence system, consider the following statements

1- The S-400 is known as Russia's most advanced long-range surface-to-air missile defence system.

2- It can be deployed within five minutes, and is capable of firing three types of missiles to create a layered defence.

3- It can engage all types of aerial targets including aircraft, unmanned aerial vehicles, and ballistic and cruise missiles within a range of 100 km, at an altitude up to 10 km.

Which of the following given above is/are correct

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

Que-3 The Department of Consumer Affairs (DoCA) had recently launched a mascot for empowering consumers and generating awareness of their rights, named as

- a) Jyoti
b) Jagriti
c) Janani
d) Jyotsana

Que-4 With reference to apex committee constitutes recently by Defence ministry, consider the following statements

1- To conduct a performance and efficiency audit.

2- Defence Minister as Chairman.

3- It is a major shift from the existing transaction-based compliance audit to carrying out an outcome-based

performance/efficiency audit aimed at enhancing overall efficiency.

Which of the following given above is/are correct

- a) 1 and 2 only b) 1 and 3 only
c) 1, 2 and 3 d) 2 and 3 only
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Que-5 With reference to 'Mission Shakti', consider the following statements

1- It is a scheme in mission mode aimed at strengthening interventions for women safety, security and empowerment.

2- The scheme seeks to make women economically empowered, exercising free choice over their minds and bodies in an atmosphere free from violence and threat.

3- The scheme seeks to reduce the care burden on women and increase female labour force participation by promoting skill development, capacity building, financial literacy, access to micro-credit etc.

Which of the following given above is/are correct

- a) 1 only b) 1 and 3 only
c) 1, 2 and 3 d) 2 and 3 only
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Que-6 Consider the following statements about Build-operate-transfer (BOT) model

1- A build-operate-transfer (BOT) contract is a model used to finance large projects, typically infrastructure projects developed through public-private partnerships.

2- BOT projects are normally large-scale, greenfield infrastructure projects that would otherwise be financed, built and operated solely by the government.

3- Under a build-operate-transfer (BOT) contract, an entity—usually a government—grants a concession to a private company to finance, build and operate a project for a period of 20-30 years, hoping to earn a profit.

Which of the following given above is/are correct

- a) 1 and 2 only b) 1 and 3 only
c) 1, 2 and 3 d) 2 only
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Que-7 Consider the following statements about Tropical ozone hole

1- The tropical ozone hole is about seven times larger than Antarctica.

2- It only appears in the spring, unlike that of Antarctica, which is visible across all seasons.

3- It is likely to cause skin cancer, cataracts and other negative effects on the health and ecosystems in tropical regions.

Which of the following given above is/are correct

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

Que-8 With reference to sodium-ion battery, consider the following statements

1- It is a type of rechargeable battery analogous to the lithium-ion battery but using sodium ions (Na⁺) as the charge carriers.

2- Sodium-ion batteries (SIBs) are currently evolving as a viable substitute for lithium-ion batteries (LIBs) because of the abundant availability and reasonable cost of sodium.

3- Na is thrice lighter and possesses a higher standard electrochemical potential than Li.

Which of the following given above is/are correct

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

ANSWER

1- (c)

- The bill reportedly proposes to include "news on digital media through any electronic device."
- The government had plans to introduce the bill in 2019, but it wasn't taken forward. According to an Economic Times report, the proposed bill seeks to bring digital news platforms on par with newspapers. Such platforms will be asked to register themselves under Press Registrar General.
- Under the amended law, digital media, which hasn't yet been defined by any law or regulation so far, will now face punitive action for "violations". The Press Registrar General will have the power to act against the digital media houses in case of such violations.
- The 2019 draft bill had defined "news on digital media" as "news in digitised format that can be transmitted over the internet, computer, mobile

networks and includes text, audio, video and graphics."

2- (a)

- It can engage all types of aerial targets including aircraft, unmanned aerial vehicles, and ballistic and cruise missiles within a range of 400 km, at an altitude up to 30 km.
- A missile defence system is intended to act as a shield against incoming ballistic missiles. The Russian-built S-400 Triumf — identified by NATO as the SA-21 Growler — is the world's most dangerous operationally deployed modern long-range surface-to-air missile system, and is considered much more effective than the Terminal High Altitude Area Defence system developed by the US.
- The S-400 is a mobile system that integrates a multifunction radar, autonomous detection and targeting systems, anti-aircraft missile systems, launchers, and a command and control centre. It can be deployed within five minutes, and is capable of firing three types of missiles to create a layered defence. It can engage all types of aerial targets including aircraft, unmanned aerial vehicles, and ballistic and cruise missiles within a range of 400 km, at an altitude up to 30 km. It can simultaneously track 100 airborne targets, including super

fighters such as the US-built F-35, and engage six of them at the same time.

3- (b)

- Jagriti will be projected as an empowered consumer who is spreading awareness about consumer rights & addressing solutions to the problems faced by the consumers.
- The "Jagriti" mascot will be used to generate consumer awareness about various themes of the Department like provisions of Consumer Protection Act 2019, Hallmarking, National Consumer Helpline toll free number 1915, provisions of weights & measures Act, decisions of the Central Consumer Protection Authority and testimonials by consumers on grievance redressal.
- Jagriti mascot shall be shown along with tagline "Jago Grahak Jago" in all its media campaigns. The two are new synonymous with young aware consumers and bring sharp focus to consumer rights knowledge and movement.

4- (b)

- Defence Secretary as Chairman.
- This kind of audit is expected to provide valuable inputs to the top management of the Ministry of specific shortcomings, if any, in the

planning and execution of projects, and suggest systemic improvements in internal controls, soundness of financial procedures, identification of risk factors, etc.

- It is a major shift from the existing transaction-based compliance audit to carrying out an outcome-based performance/efficiency audit aimed at enhancing overall efficiency.

5- (c)

- 'Mission Shakti' has two sub-schemes - 'Sambal' and 'Samarthya'. While the "Sambal" sub-scheme is for safety and security of women, the "Samarthya" sub-scheme is for empowerment of women. The components of 'Sambal' sub-scheme consist of erstwhile schemes of One Stop Centre (OSC), Women Helpline (WHL), Beti Bachao Beti Padhao (BBBP) with a new component of Nari Adalats - women's collectives to promote and facilitate alternative dispute resolution and gender justice in society and within families.
- The components of 'Samarthya' sub-scheme consist of erstwhile schemes of Ujjwala, Swadhar Greh and Working Women Hostel have been included with modifications. In addition, the existing schemes of National Creche Scheme for children of working mothers and Pradhan

Mantri Matru Vandana Yojana (PMMVY) under umbrella ICDS have now been included in Samarthya. A new component of Gap Funding for Economic Empowerment has also been added in the Samarthya Scheme.

6- (c)

- Over the last few years, especially since the onset of the pandemic, the NHAI resorted to offering projects under the Hybrid Annuity Model (HAM) that ensures funds to the company building the road, thereby insulating it from financial risk to a certain extent. Under the HAM model, 40 per cent of the project cost is paid by the government as construction support to the private developer, and the remaining 60 per cent is to be arranged by the developer.
- The BOT (toll) model was the preferred model for road projects, accounting for 96% of all projects awarded in 2011-12. But this progressively reduced to nil. When the interest in BOT projects started to wane, road construction shifted to the traditional engineering, procurement and construction (EPC) mode, with the HAM model being devised later. Under the EPC model, the government pays the entire cost, thereby insulating the contractor entirely from financial risk.

7- (b)

terms of energy density, specific capacity, or rate capability.

- The tropical ozone hole, which makes up 50 per cent of Earth's surface, could cause a global concern due to the risks associated with it. It is likely to cause skin cancer, cataracts and other negative effects on the health and ecosystems in tropical regions.
- Chlorofluorocarbon's (CFC) role in depleting the ozone layer is well-documented.
- Despite bans on such chemicals, evidence suggests ozone depletion continues even after slowing down.
- It also appears across all seasons, unlike that of Antarctica, which is visible only in the spring.

8- (a)

- The sodium-ion battery (NIB or SIB) is a type of rechargeable battery analogous to the lithium-ion battery but using sodium ions (Na^+) as the charge carriers. Its working principle and cell construction are almost identical with those of commercially widespread lithium-ion battery types, but sodium compounds are used instead of lithium compounds.
- As Na is thrice heavier and possesses a lower standard electrochemical potential than Li, it makes the built-in SIBs difficult to outclass the LIBs in