

Q.1) Consider the following statements about “Aajeevika Grameen Express Yojana (AGEY)”

1. It is a sub-scheme under Deendayal Antyodaya Yojana – National Rural Livelihoods Mission (DAY-NRLM)
2. It will provide an alternative source of livelihoods to members of Self Help Groups (SHGs) facilitating them to operate public transport services in backward rural areas

Select the correct statements

- a) Only 1
- b) Only 2
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.1) Solution (c)

The Ministry of Rural Development will launch a new sub-scheme under Deendayal Antyodaya Yojana – National Rural Livelihoods Mission (DAY-NRLM) which will be named as “Aajeevika Grameen Express Yojana (AGEY)”.

The main objectives of AGEY are to provide an alternative source of livelihoods to members of Self Help Groups (SHGs) under DAY-NRLM by facilitating them to operate public transport services in backward rural areas.

This will provide safe, affordable and community monitored rural transport services like e-rickshaws, 3 and 4 wheeler motorised transport vehicles to connect remote villages with key services and amenities including access to markets, education and health for the overall economic development of the area.

The sub-scheme will be implemented in 250 blocks in the country on a pilot basis for a period of 3 years from 2017-18 to 2019-20.

One of the options proposed to be given under the sub-scheme is that the Community Based Organisation (CBO) will provide interest free loan from its own corpus to Self Help Group member for purchase of the vehicle.

The Government is implementing DAY-NRLM across the country in all States and Union Territories (except Delhi and Chandigarh). Under DAY-NRLM, till date, 34.4 lakh women SHGs have been promoted under the programme. The financial support under the programme is mainly in the form of Revolving Fund and Community Investment Funds, given as grants to the Self Help Groups (SHGs) and their federations.

Source: <http://pib.nic.in/newsite/PrintRelease.aspx?relid=168693>

Q.2) Consider the following statements about 'Sohum'

1. It is a device which uses brainstem auditory evoked response to check for hearing response in a new-born
2. It is developed under Department of Biotechnology (DBT), Ministry of Science and Technology

Select the correct statements

- a) Only 1
- b) Only 2
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.2) Solution (c)

Sohum"- An innovative Newborn hearing screening Device

The indigenously developed newborn hearing screening device SOHUM was launched.

The newborn hearing screening device developed by School of International Biodesign (SIB) startup M/s Sohum Innovation Labs India Pvt. Ltd.

This innovative medical device has been developed under Department of Biotechnology (DBT), Ministry of Science and Technology, Government of India supported (SIB). SIB is a flagship Program of the DBT aimed to develop innovative and affordable medical devices as per unmet clinical needs of India and to train the next generation of medical technology innovators in India, it is a valuable contribution to the Make in India campaign of the Government. This Program is implemented jointly at AIIMS and IIT Delhi in collaboration with International partners. Biotech Consortium India Limited manages techno-legal activities of the Program.

Sohum is a low cost and unique device which uses brainstem auditory evoked response, the gold standard in auditory testing to check for hearing response in a newborn. As of now, this technology is prohibitively expensive and inaccessible to many. Start-up Sohum has made the technology appropriate for the resource constrained settings and aims to cater to nearly 26 million babies born every year in India.

Source: <http://www.dbtindia.nic.in/dbt-launched-%E2%80%9Csohum%E2%80%9D-an-innovative-newborn-hearing-screening-device/>

Q.3) Consider the following statements about AT1 bond

1. These bonds have no maturity date
2. The issuing bank has the option to call back the bonds or repay the principal after a specified period of time

Select the incorrect statements

- a) Only 1
- b) Only 2
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.3) Solution (d)

Basel III introduced tighter capital requirements in comparison to Basel I and Basel II. Banks' regulatory capital is divided into Tier 1 and Tier 2, while Tier 1 is subdivided into Common Equity Tier 1 and additional Tier 1 capital. The distinction is important because security instruments included in Tier 1 capital have the highest level of subordination. Common Equity Tier 1 capital includes equity instruments that have discretionary dividends and no maturity, while additional Tier 1 capital comprises securities that are subordinated to most subordinated debt, have no maturity, and their dividends can be cancelled at any time. Tier 2 capital consists of unsecured subordinated debt with an original maturity of at least five years.

These bonds have no maturity date. Technically they can continue to pay the coupon forever. The issuing bank has the option to call back the bonds or repay the principal after a specified period of time. The attraction for investors is higher yield than secured bonds issued by the same entity. But this comes with a two-fold risk.

- First, the issuing bank has the discretion to skip coupon payment. Under normal circumstances it can pay from profits or revenue reserves in case of losses for the period when the interest needs to be paid.
- Second, the bank has to maintain a common equity tier I ratio of 5.5%, failing which the bonds can get written down. In some cases there could be a clause to convert into equity as well. Given these characteristics, AT1 bonds are also referred to as quasi-equity.

What is Additional Tier 1 Capital (AT1)?

Additional Tier 1 or AT1 consists of capital instruments that are continuous, in that there is no fixed maturity including:

- Preferred shares
- High contingent convertible securities

These perpetual instruments must contain no incentive for the issuer to redeem them. Contingent convertible securities (often referred to as CoCos) are a major component of AT1 and their structure is shaped by their primary purpose as a readily available source of capital for a firm in times of crisis.

As such, they characteristically absorb losses prior to, or at, the point of insolvency and the activation of this absorption must be a function of the capitalisation levels of the issuing firm.

CoCos can absorb losses either by:

- Converting into common equity; or
- Suffering a principal write-down.

Basel III - <http://www.investopedia.com/terms/b/basell-iii.asp>

Source: http://www.business-standard.com/article/finance/pnb-bob-syndicate-to-raise-rs-7-000-crore-via-at-1-bonds-117072400022_1.html

Q.4) Consider the following statements about 'Phobos'

1. It is the smaller and outer of the two natural satellites of the planet Mars
2. It orbits Mars below the synchronous orbit radius

Select the correct statements

- a) Only 1
- b) Only 2
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.4) Solution (b)

Phobos is the innermost and larger of the two natural satellites of Mars, the other being Deimos.

Phobos orbits Mars below the synchronous orbit radius, meaning that it moves around Mars faster than Mars itself rotates.

Therefore, from the point of view of an observer on the surface of Mars, it rises in the west, moves comparatively rapidly across the sky (in 4 h 15 min or less) and sets in the east, approximately twice each Martian day (every 11 h 6 min). Because it is close to the surface and in an equatorial orbit, it cannot be seen above the horizon from latitudes greater than 70.4° . Its orbit is so low that its angular diameter, as seen by an observer on Mars, varies visibly with its position in the sky.

Source: <http://www.thehindu.com/sci-tech/science/phobos-imaged-by-hubble-space-telescope/article19331838.ece>

Q.5) Which of the following is/are correctly matched?

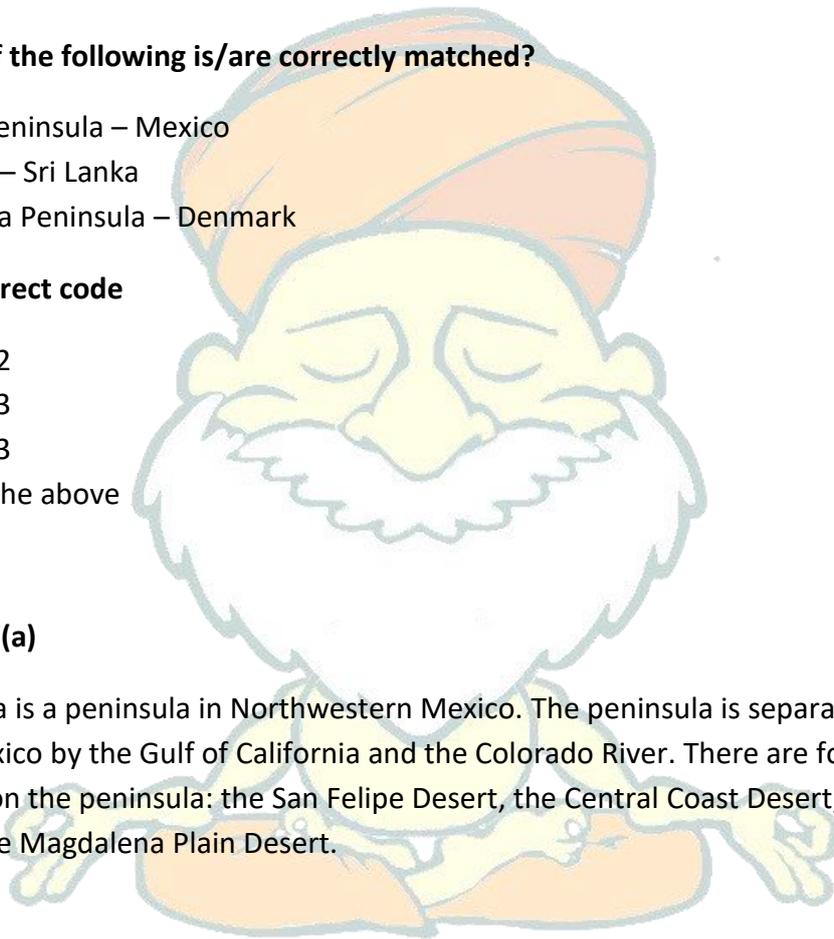
1. Baja Peninsula – Mexico
2. Jaffna – Sri Lanka
3. Ungava Peninsula – Denmark

Select the correct code

- a) 1 and 2
- b) 2 and 3
- c) 1 and 3
- d) All of the above

Q.5) Solution (a)

Baja Peninsula is a peninsula in Northwestern Mexico. The peninsula is separated from mainland Mexico by the Gulf of California and the Colorado River. There are four main desert areas on the peninsula: the San Felipe Desert, the Central Coast Desert, the Vizcaíno Desert and the Magdalena Plain Desert.



July 25, 2017



The Ungava Peninsula of Nunavik, Quebec, Canada, is bounded by Hudson Bay to the west, Hudson Strait to the north, and Ungava Bay to the east. The Ungava Peninsula is part of the Labrador Peninsula. Its northernmost point is Cape Wolstenholme, which is also the northernmost point of Quebec.



It is the capital city of the Northern Province of Sri Lanka. It is the administrative headquarters of the Jaffna district located on a peninsula of the same name.