## September 26, 2016

## Q.1) Consider the following statements with respect to SCATSAT-1

- 1. It is an earth observation satellite
- 2. It is a continuity mission for Oscat
- 3. It is launched by RLV-TD

## Which of the following statements is/are correct?

- a) 1 and 2
- b) 1 and 3
- c) Only 1
- d) 2 and 3

## Q.1) Solution (a)

### **SCATSAT-1**

SCATSAT-1 is a continuity mission for Oceansat-2 Scatterometer to provide wind vector data products for weather forecasting, cyclone detection and tracking services to the users. The satellite carries Ku-band Scatterometer similar to the one flown onboard Oceansat-2. The spacecraft is built around standard IMS-2 Bus and the mass of the spacecraft is 377 kg. The spacecraft will be put in SSP orbit of 720 km altitude with an inclination of 98.1 deg by PSLV-C35. The mission life of the satellite is 5 years.

The SCATSAT-1 was launched by PSLV-C35 on Monday morning at 9:12 hrs (IST) on September 26, 2016 from the First Launch Pad of SDSC SHAR, Sriharikota.

## PSLV-35

India's Polar Satellite Launch Vehicle, in its thirty-seventh flight (PSLV-C35), will launch the 371 kg SCATSAT-1 for ocean and weather related studies and seven co-passenger satellites into polar Sun Synchronous Orbit (SSO). Co-passenger satellites are from Algeria, Canada and USA as well as two satellites from Indian Universities/ Academic Institute.

SCATSAT-1 will be placed into a 730 km Polar SSO whereas; the two Universities/ Academic Institute Satellites and the five foreign satellites will be placed into a 689 km polar orbit. This is the first mission of PSLV in which it will be launching its payloads into two different orbits.

PSLV-C35 will be launched from the First Launch Pad (FLP) of Satish Dhawan Space Centre (SDSC) SHAR, Sriharikota. It will be the fifteenth flight of PSLV in 'XL' configuration (with the use of solid strap-on motors).

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### From Oscat to SCATSAT-1

The Oceansat-II Scatterometer (popularly known as ('Oscat') is 1SRO's first microwave remote-sensing sensor launched on September 23, 2009.

Oscat was also the only wind-sensing Ku-band scanning pencil-beam Scatteroineter in operation during its lifetime (September 2009 to March 2014). It turned out to be a globally significant and useful mission in the areas of wind-retrieval, weather-forecasting. cyclone-tracking and prediction. As an example, the landfall of Phailiiì Cyclone in the Odisha coast was accurately predicted well in advance based on Oscat observations and thus loss of human life could be avoided.

Oscat data were routinely disseminated to international agencies like EUMETSAT. KNMI, NASA, NOAA and ECMWF apart from Indian users. The instrument has been appreciated by the users for the quality and stability of data it provided.

SCATSAT-1 is a quick replacement mission of Oscat. Although a follow-on mission, significant improvements have been incorporated in the hardware configuration based on lessons learnt from Oscat.

Also, the payload has been characterised with the objective of achieving data quality for Climate Data Records, apart from facilitating routine meteorological applications.

In News - <a href="http://www.livemint.com/Science/McJuLrjF0lHB1i4xJdQjal/Isro-launches-PSLV-C35-carrying-8-satellites-for-two-differ.html">http://www.livemint.com/Science/McJuLrjF0lHB1i4xJdQjal/Isro-launches-PSLV-C35-carrying-8-satellites-for-two-differ.html</a>

# Q.2) Five-hundred-meter Aperture Spherical Telescope (FAST) I located in which of the following countries?

- a) United States of America
- b) China
- c) Puerto Rico
- d) Germany

## Q.2) Solution (b)

The Five-hundred-meter Aperture Spherical Telescope (FAST nicknamed Tianyan - "Heavenly Eye" or "The Eye of Heaven"), is a radio telescope located in the Dawodang depression, a natural basin in Pingtang County, Guizhou Province, southwest China.

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In News - <a href="http://www.thehindu.com/todays-paper/tp-international/worlds-largest-radio-telescope-begins-operations/article9147867.ece">http://www.thehindu.com/todays-paper/tp-international/worlds-largest-radio-telescope-begins-operations/article9147867.ece</a>

# Q.3) Consider the following statements about National Investment and Infrastructure Fund (NIIF)

- 1. The NIIF is established as one or more Alternate Investment Funds (AIF) under the SEBI Regulations.
- 2. NIIF is eligible for a pass through status under the Income Tax Act.
- 3. NIIF can have various sector-specific or investor-specific close ended Schemes ("funds") and each fund may issue various classes of units.

## Which of the following statements is/are correct?

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

### Q.3) Solution (d)

The NIIF will be established as one or more Alternate Investment Funds (AIF) under the SEBI Regulations.

NIIF was formed as a category II AIF, as a Trust, under Indian Trust Act on 28 December 2015 alongwith the formation of National Investment and Infrastructure Fund Trustee Ltd. and National Investment and Infrastructure Fund Ltd. India Infrastructure Finance Company Ltd (IIFCL) was appointed as Investment Advisor to NIIF Ltd and IDBI Capital Market Services Ltd as Advisor to NIIF Trustee Ltd initially for 6 months and 1 year respectively.

If set up as Category I and II AIFs, then NIIF will be eligible for a pass through status under the Income Tax Act. A 'pass-through' status means that the income generated by the fund would be taxed in the hands of the ultimate investor, and the fund itself would not have to pay tax on the same. In the case of category III AIF, where pass through status is not available, all income received by NIIF will be taxable at its level and any distribution made to the unit holders (investors) would be tax exempt.

The NIIF can have various sector-specific or investor-specific close ended Schemes ("funds") and each fund may issue various classes of units. Government along with other investor(s)

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would subscribe to the units of various funds. The units, investment strategy and accounts of each fund shall be distinct from and independent of the other funds.

In News - http://www.thehindu.com/todays-paper/tp-business/niif/article9147846.ece

## Q.4) Tubectomy is

- a) A surgical procedure for male sterilization
- b) A tube placed through the ear drum to allow air into the middle ear for people suffering from hearing loss or middle ear infections
- c) A surgical procedure for female sterilization
- d) None of the above

## Q.4) Solution (c)

'Tubectomy' is the formal term used for female sterilisation.

'Vasectomy' is the formal term used for male sterilisation.

In News - <a href="http://www.financialexpress.com/india-news/sterlisation-in-india-only-meant-for-women-figures-say-only-2-per-cent-males-participate-in-birth-control/390579/">http://www.financialexpress.com/india-news/sterlisation-in-india-only-meant-for-women-figures-say-only-2-per-cent-males-participate-in-birth-control/390579/</a>

Q.5) Below given are the Joint Military Exercises which was in news this year. Select the correctly matched pair/s from the codes given below:

1. Yudh Abhyas 2016 : : India and US

2. Friendship 2016: India and Russia

3. Surya Kiran 2016 : India and Bangladesh

4. Shakti 2016: India and Nepal

### Select the correct code:

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

## Q.5) Solution (a)

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## 1. Joint Indian-US army exercise 'Yudh Abhyas 2016' in Uttarakhand

http://indianexpress.com/article/india/india-news-india/joint-indian-us-army-exercise-yudh-abhyas-2016-to-begin-in-uttarakhand-3026737/

## 2.India-Russia Joint Military Exercise Indra-2016 Begins in Vladivostok

http://pib.nic.in/newsite/PrintRelease.aspx?relid=151060

Friendship 2016 is between Pakistan and Russia, not India and Russia

## 3.Indo-Nepal Battalion level combined Exercise Surya Kiran IX

http://pib.nic.in/newsite/PrintRelease.aspx?relid=136570

## 4. Exercise Shakti-2016': Indo-French joint military training drill

http://economictimes.indiatimes.com/slideshows/nation-world/exercise-shakti-2016-indo-french-joint-military-training-drill/indo-french-joint-military-training-drill/slideshow/50609490.cms

