

October 12, 2017

**Q.1) Consider the following statements about the recently discovered compound called BTSA1**

1. It directly drives cancer cells to commit suicide while sparing healthy cells.
2. It combats cancer by triggering Necrosis

**Select the correct statements**

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

**Q.1) Solution (a)**

The compound called BTSA1 combats cancer by triggering apoptosis – an important process that rids the body of unwanted or malfunctioning cells. Apoptosis trims excess tissue during embryonic development, for example, and some chemotherapy drugs indirectly induce apoptosis by damaging DNA in cancer cells. Apoptosis occurs when BAX – the “executioner protein” in cells – is activated by “pro-apoptotic” proteins in the cell.

Once activated, BAX molecules home in on and punch lethal holes in mitochondria, the parts of cells that produce energy, they said. However, often cancer cells manage to prevent BAX from killing them. They ensure their survival by producing copious amounts of “anti-apoptotic” proteins that suppress BAX and the proteins that activate it, researchers said. “Our novel compound revives suppressed BAX molecules in cancer cells by binding with high affinity to BAX’s activation site.

BAX can then swing into action, killing cancer cells while leaving healthy cells unscathed, researchers said. “A compound dubbed BTSA1 (short for BAX Trigger Site Activator 1) proved to be the most potent BAX activator, causing rapid and extensive apoptosis when added to several different human AML cell lines.

The researchers next tested BTSA1 in blood samples from patients with high-risk AML. Strikingly, BTSA1 induced apoptosis in the patients’ AML cells but did not affect patients’ healthy blood-forming stem cells.

**Source:** <http://indianexpress.com/article/technology/science/novel-compound-causes-cancer-to-self-destruct-4883880/>

**Q.2) Quasi-Zenith is a regional terrestrial positioning network system launched by**

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- a) Russia
- b) Japan
- c) US
- d) Israel

### Q.2) Solution (b)

Source: <http://www.thehindu.com/todays-paper/tp-in-school/japan-launches-latest-satellite-of-positioning-system/article19835949.ece>

### Q.3) Which of the following statements is/are correct?

- a) India has the fourth largest installed wind power capacity in the world.
- b) Maharashtra is the leader in Wind Power in India
- c) Both (a) and (b)
- d) Neither (a) nor (b)

### Q.3) Solution (a)

During an auction conducted last week by the state-run Solar Energy Corporation of India (SECI) for 1,000 megawatts (MW) of wind power installations, tariffs fell to a new low of Rs2.64 per unit, down 24% from even the previous low of Rs3.46. The prices are now competitive with the solar energy segment which hit a record-low of Rs2.44 per unit in May, also during auctions conducted by SECI. Renewable energy in India is now cheaper than coal-based power, which costs around Rs3.20 per unit.

Tamil Nadu is 1<sup>st</sup> and Maharashtra is 2<sup>nd</sup>.

The top 4 wind power countries are China, US, Germany and India.

### Q.4) Mitra Shakti is a joint military exercise between India and

- a) Sri Lanka
- b) Nepal
- c) France
- d) Russia

### Q.4) Solution (a)

Mitra Shakti is a joint exercise between India and Sri Lanka for military co-operation and interoperability.

Source: <http://indianexpress.com/article/india/to-counter-china-india-sri-lanka-joint-military-exercise-in-pune-from-oct-13-4884495/>

### Q.5) Consider the following statements

1. SANKALP is a centrally sponsored scheme, including loan support from World Bank to provide market relevant training to 3.5 crore youth.
2. STRIVE is a Rs 2,200-crore central sector scheme focused on improving the quality and market relevance of vocational training provided in ITIs and strengthen the apprenticeship programmes through industry cluster approach.

### Select the correct statements

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

### Q.5) Solution (c)

The Cabinet Committee on Economic Affairs, chaired by Prime Minister Narendra Modi, approved two World Bank supported schemes of Rs 6,655 crore aimed at skill development in the country.

Skills Acquisition and Knowledge Awareness for Livelihood Promotion (SANKALP) is a Rs 4,455-crore centrally sponsored scheme, including Rs 3,300 crore loan support from World Bank, while Skill Strengthening for Industrial Value Enhancement (STRIVE) is a Rs 2,200-crore central sector scheme, with half of the scheme outlay as World bank loan assistance. SANKALP and STRIVE are outcome-focused schemes marking shift in the government's implementation strategy in vocational education and training from inputs to results.

SANKALP will provide market relevant training to 3.5 crore youth, which has been felt necessary in the fast-changing economic scenario.

## IASbaba's Daily Quiz

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STRIVE will focus on improving the quality and market relevance of vocational training provided in ITIs and strengthen the apprenticeship programmes through industry cluster approach.

Read More - <http://pib.nic.in/newsite/printrelease.aspx?relid=158674>

Source: <http://indianexpress.com/article/business/economy/skill-development-ccea-approves-two-world-bank-backed-schemes-4885951/>

