



30 Days Revision Module Day 9 - Feb 2021 Current Affairs (UPSC Prelims 2021)

1) Assertion (A): All stars burn nuclear fuel in their cores'.

Reason (R): The heat due to burning, generates an internal pressure which pushes outwards and prevents the star from collapsing inward.

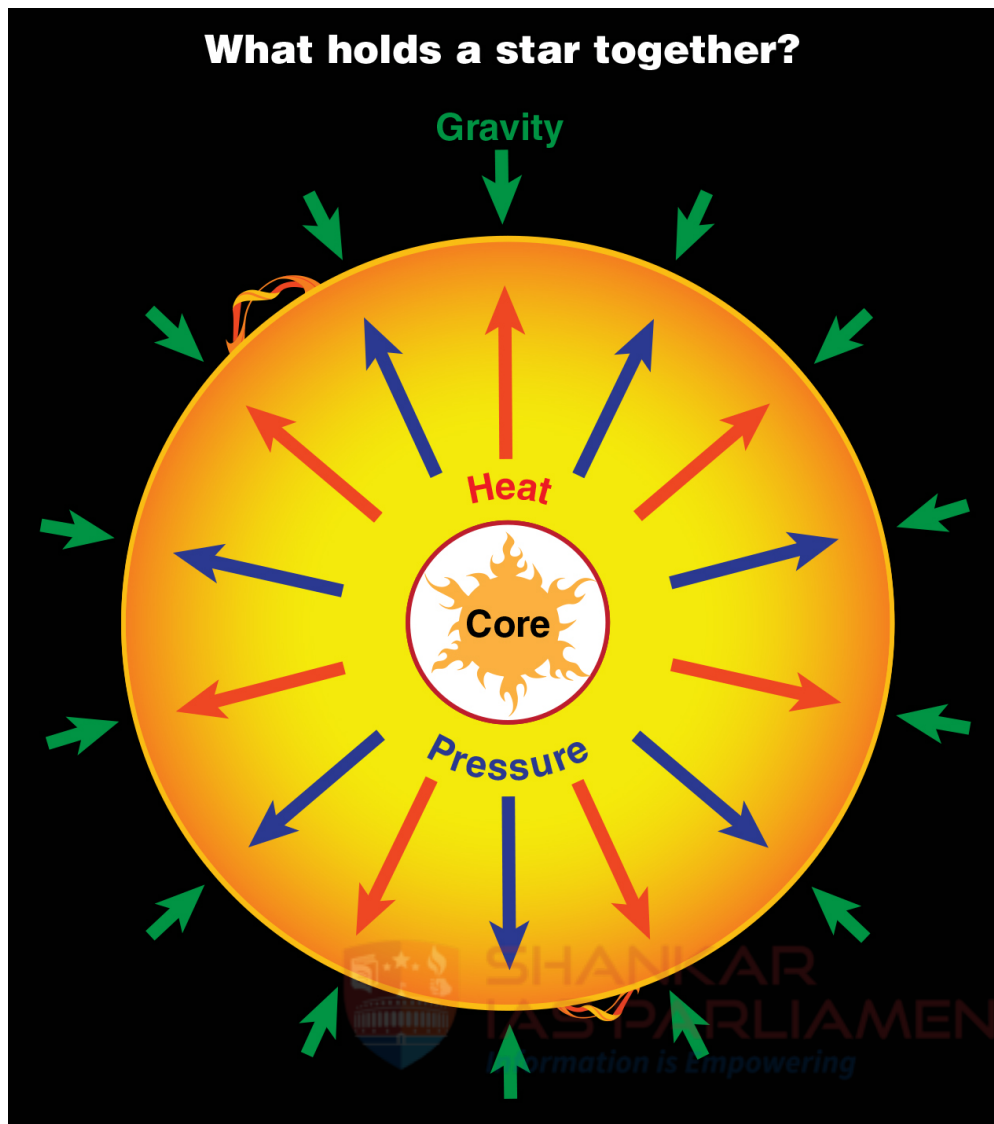
Select the correct answer using the codes given below:

- a. Both A and R are true and R is the correct explanation of A
- b. Both A and R are true and R is not the correct explanation of A
- c. A is true and R is false
- d. A is false and R is true

Answer : a

Supernova

- All stars burn nuclear fuel in their cores' to produce energy.
- The heat generates internal pressure which pushes outwards and prevents the star from collapsing inward due to the action of gravity on its own mass.
- But when the star ages and runs out of fuel to burn, it starts to cool inside.
- This causes a lowering of its internal pressure and therefore the force of gravity wins; the star starts to collapse inwards.
- This builds up shock waves because it happens very suddenly, and the shock wave sends the outer material of the star flying.
- This is what is perceived as a supernova. This happens in very massive stars.
- In stars that are more than eight times as massive as the Sun, the supernova is accompanied by a collapsing of the inner material of the dying star – this is also known as core collapse supernova or Type II supernova.
- The collapsing core may form a black hole or a neutron star, according to its mass.



2) Consider the following statements with respect to Major Port Authorities Bill, 2020

1. It will apply to 11 Major ports and other strategically important Minor ports.
2. It replaces all the existing port trusts and tariff authority for Major ports.
3. Corporate Social Responsibility (CSR) is applicable for the newly created Board of Major Port Authority for each major port.

Which of the above statement(s) is/are **incorrect**?

- a. 1 only
- b. 2 only
- c. 1 and 3 only
- d. 2 and 3 only

Answer : a

Major Port Authorities Bill, 2020

- The Bill will apply to the major ports of Chennai, Cochin, Jawaharlal Nehru Port, Kandla, Kolkata, Mumbai, New Mangalore, Mormugao, Paradip, V.O. Chidambaranar, and Vishakhapatnam.
- The Bill provides for the creation of a Board of Major Port Authority for each major port which will replace the existing port trusts.

- The Bill provides that the Board may use its funds for providing social benefits.
- This includes development of infrastructure in areas such as education, health, housing, and skill development.

3) Which of the following statements is/are correct with respect to Digital Services Tax (DST)

1. It is a 2% tax that India has charged on revenues from digital services.
2. It is applicable only to non-resident digital companies.

Select the correct answer using the codes given below:

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : c

Digital Services Tax (DST)

- It is a 2% tax that India has charged since April 2020 on revenues from digital services.
- It is applicable only to non-resident companies.
- The digital services offered in India, including digital platform services, digital content sales, and digital sales of a company's own goods, data-related services, software-as-a-service, and several other categories of digital services.
- It is aimed at ensuring that non-resident, digital service providers pay their fair share of tax on revenues generated in the Indian digital market.
- Ministry of Commerce & Industry clarifies that there is no retrospective element as the levy was enacted before the first day of April, 2020, which is the effective date of the levy.
- The DST does not have extra-territorial application as it applies only on the revenue generated from India.

4) Which of the following statements are correct with respect to Factors of high rainfall in Cherrapunji

1. High rainfall in the area is caused by the orography favouring a monsoon wind regime.
2. The changes in the Indian Ocean temperature have a huge effect on the rainfall in the region.

Select the correct answer using the codes given below:

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : c

Factors of high rainfall in Cherrapunji

- Cherrapunji (elevation 1313 m) and Mawsynram (elevation 1401.5 m) are located on the southern slopes of the east Khasi Hills in Meghalaya.
- Meghalaya is a mountainous state with numerous valleys and highland plateaus.
- Elevation in the plateau region ranges between 150 m to 1,961 m , with the central part comprising the Khasi Hills with the highest elevations.
- The northward moving moist winds from the Bay of Bengal passing over the plains of Bangladesh are forced to converge in the narrow valleys of the Khasi Hills with orography providing forced ascent that causes condensation, formation of clouds resulting in rain on the windward side of the slope.

- A recent study that looked at the rainfall pattern in the past 119 years found a decreasing trend at Cherrapunji (Meghalaya) and nearby areas.

5) Which of the following statements is/are **incorrect** with respect to Land Titling system in India

1. Land Titling is the generic term used to describe the programs implemented by the government to enable individuals and government to efficiently trade in rights in land and property.
2. India currently follows the Conclusive Land titling system under which the ownership title is granted by the government, which takes the responsibility for accuracy.

Select the correct answer using the codes given below:

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : b

Land Titling systems in India

- Land Titling is the generic term used to describe the programs implemented by the government to enable individuals and government to efficiently trade in rights in land and property.
- **Presumptive Land Titling** - India currently follows this system, it means that land records are maintained, with information on possession, which is determined through details of past transactions.
- Ownership is established on the basis of current possession.
- Registration of land is actually a registration of transactions, such as sale deeds, records of inheritance, mortgage and lease.
- Holding registration papers does not actually involve the government or the legal framework guaranteeing the ownership title of the land.
- **Conclusive Land titling system** under this land records designate actual ownership.
- The ownership title is granted by the government, which takes the responsibility for accuracy.
- Once a title is granted, any other claimant will have to settle disputes with the government, not the title holder.
- The government may provide compensation to claimants in case of disputes, but the title holder is not in any danger of losing ownership.
- Recently NITI Aayog has formulated model bill on conclusive land titling.

6) Consider the following statements with respect to Black Necked Cranes

1. Its habitat lies in Assam and adjoining low altitude grassland areas.
2. It has been listed as near threatened under the IUCN red list.

Which of the statement(s) given above is/are **incorrect**?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : a

Black Necked Cranes

Description

- Both the sexes in the black necked crane are almost of the same size but male is slightly bigger than female.
- The upper long neck, head, primary and secondary flight feathers and tail are completely black and body plumage is pale gray/whitish.
- A conspicuous red crown adorns the head.

IUCN Status

- In 2020, a re-assessment of the crane's population led its status to change from Vulnerable to Near Threatened on the IUCN Red List.
- The bird is revered by the community of Monpas (major Buddhist ethnic group of Arunachal Pradesh) as an embodiment of the sixth Dalai Lama (Tsangyang Gyatso).
- Monpas inhabit the West Kameng and Tawang districts, are essentially Buddhists who follow the Mahayana sect.

Habitat

- The high altitude wetlands of the Tibetan plateau, Sichuan (China), and eastern Ladakh (India) are the main breeding ground of the species, the birds spend winter at lower altitudes.
- In Bhutan and Arunachal Pradesh, it only comes during the winters.
- In Arunachal Pradesh, it can be seen in West Kameng district and Tawang district.

7) Consider the following statements with respect to DNA Technology Bill

1. Under the Bill, DNA testing is allowed only in respect of matters listed in the Schedule to the Bill.
2. The Bill provides for the establishment of a National DNA Data Bank and Regional DNA Data Banks, for every state, or two or more states.

Which of the statement(s) given above is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : c

DNA Technology Bill

- Under the Bill, DNA testing is allowed only in respect of matters listed in the Schedule to the Bill.
- It includes offences under the Indian Penal Code, 1860, and for civil matters such as paternity suits.
- The Bill provides for the establishment of a National DNA Data Bank and Regional DNA Data Banks, for every state, or two or more states.
- Every Data Bank will be required to maintain indices for the following categories of data i.e. a crime scene index, a suspects' or under trials' index, an offenders' index, a missing persons' index, and an unknown deceased persons' index.
- The Bill provides for removal of the DNA profiles of the following persons:

1. Of a suspect if a police report is filed or court order given;
2. Of an under trial if a court order is given; and
3. On written request, for persons who are not a suspect, offender or under trial, from the crime

scene or missing persons' index.

8) Consider the following statements about Startup India Seed Fund Scheme

1. It aims to provide financial assistance to start-ups up to Rs. 70 lakh and incubators up to Rs. 5 crore as grant.
2. The scheme is implemented by the Ministry of Finance.

Which of the above statement(s) is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : a

Startup India Seed Fund Scheme (SISFS)

- Startup India Seed Fund Scheme (SISFS) aims to provide financial assistance to startups for proof of concept, prototype development, product trials, market entry and commercialization.
- Start-ups can avail up to Rs.70 lakh and incubators would get up to Rs. 5 crore as grant and if they are able to spend this in three years, they would get another Rs. 5 crore.
- The Seed Fund will be disbursed to eligible startups through eligible incubators across India.
- It is implemented by Ministry of Commerce and Industry.

9) Which of the following statements are correct with respect to Nuclear Medicines

1. It uses small amounts of radioactive materials called radiotracers that are typically injected into the bloodstream, inhaled or swallowed.
2. Hyperthyroidism, thyroid cancer, and bone pain from some types of cancer are few diseases treated with nuclear medicine.

Select the correct answer using the codes given below:

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : c

Nuclear Medicines

- Under this stream of medicine the radiotracer travels through the area being examined and gives off energy in the form of gamma rays.
- Such gamma rays are detected by a special camera and a computer to create images of the inside of your body.
- Nuclear medicine imaging provides unique information that often cannot be obtained using other imaging procedures and offers the potential to identify disease in its earliest stages.
- Recently Bhabha Atomic Research Centre (BARC) has “evolved” the design for the country's first public private partnership research reactor for production of nuclear medicines.
- This project will be a major step towards making India self-reliant in key radio isotopes used in medical and industrial applications.
- At present, India produces all major isotopes in the country under the aegis of BARC.

10) Consider the following statements about Occupational Safety, Health and Working Conditions Code, 2020 (OSH code)

1. It subsumes Inter-state Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979.
2. The provisions of the code are applicable to every establishment in which 10 or more inter-state migrant workers are employed or were employed on any day of the preceding 12 months.

Which of the above statement(s) is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : c

Occupational Safety, Health and Working Conditions Code, 2020

- Occupational Safety, Health and Working Conditions Code, 2020 notified in 2020 subsumed Inter-state Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979.
- It provides for decent working conditions, minimum wages, grievances redressal mechanisms, protection from abuse and exploitation, enhancement of the skills and social security to all category of organised and unorganised workers including Migrant workers.
- The relevant provisions of the Code are applicable to every establishment in which 10 or more inter-state migrant workers are employed or were employed on any day of the preceding 12 months.



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