No quick fix: On National Research Foundation Bill

India's private sector must be **incentivised** to see value in invention

Among the most important pieces of legislation slated to be tabled in the current monsoon session of Parliament is the National Research Foundation (NRF) Bill, 2023. While a draft is not in the public domain, it envisages a new, centralised body to fund research, with a budget of ₹50,000 crore, over the next five years. The NRF draws on models such as the United States's National Science Foundation whose nearly \$8 billion budget is the major source of funding for college and university research, and the European Research Council, which funds basic and applied research. However, the NRF's plan, going by public statements of administrators, is to draw the bulk of its budget — ₹36,000 crore — from the private sector. For many years, India's spending on research has lagged between 0.6%-0.8% of GDP, or lower than the 1%-2% spent by countries with an economic base reliant on science and technology. In countries such as China, the U.S. and Israel, the private sector contributed nearly 70% of the research expenditure whereas in India, this was only about 36% of India's total research expenditure — roughly ₹1.2 lakh crore — in 2019-20. Therefore, the Centre reasons, the way to galvanise university research in India would be to attract more private money. While that is a reasonable expectation, it is unclear how such a proposal can be **executed**. One of the suggestions is to have the funds private companies allot, as part of their annual corporate social responsibility (CSR) obligations, directed to the NRF. Data from the Ministry of Corporate Affairs show that during FY-2022, companies spent ₹14,588 crore as part of their CSR obligations. CSR trends suggest that nearly 70% of such funds were spent in education, health care, and sanitation projects. Moreover, many of the companies spend this on initiatives that are located within their own communities, with the government not having a say on how this must be spent. Whether the government can force, or offer tax benefits, to coax some of these funds into the NRF remains to be seen.

The relatively greater **contribution** of private sector research in many countries **is** because of **sustained** government support to universities and research institutions, that have then **encouraged** individuals to build companies, and institutions that saw value in investing in research and development. The challenge in India is not the absence of such companies but the fact that there are too few of them. **Organisations** such as the NRF **should** work to create conditions which incentivise the development of private sector organisations that see value in invention and developing **proprietary technology**. **Philanthropy** is **unlikely** to be the **panacea**. **[Practice Exercise]**

 Red/blue coloring of words in the sentence indicates subject verb relationship; where 'red' denotes 'subject' and 'blue' denotes 'verb'.

Vocabulary

- Quick fix (phrase) an expedient, temporary solution, अस्थायी समाधान/ उपाय
- Incentivise (verb) motivate or encourage प्रोत्साहित करना
- 3. **Legislation** (noun) Lawmaking, legislature, regulation, law, bill विधान
- 4. **Slated** (adjective) Scheduled, planned, intended, set, arranged निर्धारित
- Table (verb) Present, introduce, put forward, submit, propose प्रस्तुत करना
- 6. **Public domain** (noun) If information is in the public domain, it is available for everyone to see or know about:
- 7. **Envisage** (verb) Foresee, anticipate, predict, imagine, contemplate परिकल्पना करना
- Fund (verb) a sum of money saved or made available for a particular purpose. पूंजी लगाना
- 9. **Draw on** (phrasal verb) use one's experience, talents, or skills as a resource. काम में लाना
- 10. **Go by** (phrasal verb) Abide by, follow, adhere to, obey पालन करना
- 11. **Draw** (verb) Get, obtain, extract, derive, take, प्राप्त करना

- 12. **Lag behind** (phrasal verb) Trail, fall behind, be behind, trail behind पीछे रहना
- 13. **Reliant** (on) (adjective) Dependent on, counting on, leaning on निर्भर होना
- 14. **Galvanise** (verb) Stimulate, motivate, excite, inspire प्रेरित करना
- 15. **Reasonable** (adjective) Logical, rational, sensible, fair 3 ਦਿत
- 16. **Execute** (verb) Implement, carry out, perform, accomplish कार्यान्वित करना
- 17. **Corporate social responsibility** (CSR) (noun) A company's sense of responsibility towards the community and environment in which it operates, expressed in terms of social and environmental initiatives.
- 18. **Obligation** (noun) Duty, responsibility, commitment, liability कर्तव्य
- 19. **Direct** (verb) Guide, lead, steer, command निर्देशित करना
- 20. **Sanitation** (noun) Hygiene, cleanliness, health, sanitization स्वच्छता
- 21. **Say** (noun) Influence, authority, sway, control प्रभाव
- 22. **Coax** (verb) Persuade, convince, encourage, tempt मनाना

- 23. **Remain to be seen** (phrase) used to express the notion that something is not yet known. देखना बाकी है
- 24. **Sustained** (adjective) Continuous, constant, steady, ongoing निरंतर
- 25. **Encourage** (verb) Promote, support, foster, spur प्रोत्साहित करना
- 26. Proprietary technology (noun) –Technology that is owned by a particular
 - Now because the control of the contr

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- company and that only it has the legal right to use.
- 27. **Philanthropy** (noun) Charitable work, altruism, generosity, charity दानशीलता
- 28. **Unlikely** (adjective) Improbable, doubtful, questionable, uncertain संभावना नहीं
- 29. **Panacea** (noun) Cure-all, universal remedy, magic bullet रामबाण



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Summary of the Editorial

- 1. The National Research Foundation (NRF) Bill, 2023, is set to be introduced during the current monsoon session of Parliament.
- 2. The Bill aims to establish a centralised body to fund research.
- 3. The proposed budget for the NRF over five years is ₹50,000 crore.
- 4. It is inspired by models like the U.S.'s National Science Foundation and the European Research Council.
- 5. A significant part, ₹36,000 crore, of the NRF's budget is expected to come from the private sector.
- 6. India's research spending has traditionally been between 0.6%-0.8% of GDP, which is lower than many tech-driven economies.
- 7. In nations like China, the U.S., and Israel, the private sector covers about 70% of research funding.
- 8. The private sector's contribution in India was only about 36% of the total in 2019-20.
- 9. To boost university research in India, there's a need to draw more from the private sector.
- 10. One suggestion is to use funds from companies' annual CSR obligations for the NRF.
- 11. In FY-2022, companies spent ₹14,588 crore on CSR, with a majority in education, health care, and sanitation.
- 12. Companies typically use CSR funds for their own communities without government direction.
- 13. It's uncertain if the government can encourage or mandate these companies to invest in the NRF.
- 14. Private sector research in other countries thrives due to consistent government support.
- 15. The NRF should foster an environment where the private sector values invention and proprietary technology development, rather than relying solely on philanthropy.

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Practice Exercise: SSC Pattern based

- 1. Which of the following is a unique aspect of the National Research Foundation (NRF) Bill, 2023 as compared to models like the United States's National Science Foundation?
 - A. The NRF plans to centralize research funding.
 - B. The NRF has a budget of ₹50,000 crore over the next five years.
 - C. The NRF intends to draw the majority of its budget from the private sector.
 - D. The NRF will fund only basic research.
- 2. Based on the passage, which of the following statements accurately captures the comparison between India and other countries regarding research expenditure and contribution?
 - A. India's private sector contributes more to research expenditure than countries like the U.S. and China.
 - B. Both India and countries like China and the U.S. have similar proportions of GDP spent on research.
 - C. In countries like China, the U.S., and Israel, the private sector contributes almost double the percentage towards research expenditure than in India.
 - D. India's government controls where CSR funds are spent by companies.
- 3. What is the tone of the passage regarding the National Research Foundation Bill and the involvement of the private sector in research funding in India?
 - A. Optimistic
 - B. Pessimistic
 - C. Analytical
 - D. Dismissive
- 4. What is the main theme of the passage?
 - A. The need for more philanthropy in India.
 - B. The discrepancies in research spending between India and other countries.
 - C. The introduction of the National Research Foundation Bill and the challenge of attracting private sector funding for research in India.
 - D. The benefits of corporate social responsibility (CSR) in the private sector.
- 5. Based on the passage, which statement is true regarding India's private sector contribution to research expenditure in comparison to countries like China, the U.S., and Israel?
 - A. The private sector in India contributes a higher percentage to research expenditure.
 - B. India's private sector contributed nearly 70% of the research expenditure.
 - C. In countries like China, the U.S., and Israel, the private sector contributed about 36% of the research expenditure.
 - D. The private sector in India contributed about 36% of the total research expenditure in 2019-20.
- 6. Which of the following statements is **TRUE** based on the passage?
 - A. The European Research Council only funds applied research.
 - B. India's private sector contributed more than 70% of the research expenditure in 2019-20.
 - C. The National Research Foundation (NRF) aims to source the majority of its budget from the government sector.

- D. One suggestion to execute the NRF's plan is to have funds from private companies' CSR obligations directed to the NRF.
- 7. Which of the following words is a synonym of "coronation"?
 - A. Enthronement
 - B. Demotion
 - C. Ignition
 - D. Termination
- 8. Which of the following words is a synonym of "lavish"?
 - A. Meager
 - B. Extravagant
 - C. Limited
 - D. Restrained
- 9. Which of the following words is an antonym of "Samaritan"?
 - A. Philanthropist
 - B. Benefactor
 - C. Self-seeker
 - D. Altruist
- 10. Which of the following words is an antonym of "aegis"?
 - A. Protection
 - B. Sponsorship
 - C. Abandonment
 - D. Supervision

Comprehension

After the conclusion of two key G20 ministerial meetings, of the Finance Ministers and Central Bank
Governers (FMCBG) in Bengaluru and Foreign Ministers Meeting (FMM) in Delhi, without consensus
over the Ukraine war, diplomats and G20 officials must pause for a1 exercise on the
government's strategy for its G20 presidency. The FMCBG is part of the key "Finance track" of the 20
most advanced economies, set up in 1999 to help global economic coordination after the Asian financial
crisis. The other, the "Sherpa track", works on the G20's goal setting process. With the experience India
gained in Indonesia last year to2 the Russia-West divide, the challenges for India's
presidency, amid dynamic geopolitical changes, should have been clear. In Bengaluru, however, the
surprise was when Russia and China refused to accept the language on the Ukraine war that they had
agreed to just three months ago. As a result, Finance Minister Nirmala Sitharaman was constrained to
issue only a Chair's summary and outcome document, rather than a joint3 The
government also decided to include the paragraphs that Russia and China had objected to, naming them
in the document. This is something of a4, as last year, the Indonesian chair's joint
communiques at the Leader level and FMCBG expressed the sentiments of "many" and "most"
countries. After the brinkmanship in Bengaluru, it was5, if not a bit surprising, that the
government chose to attempt negotiations for a joint statement for the FMM
60 - Comment of the C

Fill in the blanks with the most appropriate combinations of words

11. Select the most appropriate option to fill in blank 1.

- **A.** Soaring
- B. Coming
- C. Stock-taking
- **D.** Stuttering

12. Select the most appropriate option to fill in blank 2.

- A. Bridge
- B. Blow
- C. Clock
- D. Alter

13. Select the most appropriate option to fill in blank 3.

- **A.** Communique
- B. Nerve
- C. Headwind
- D. Cloud

14. Select the most appropriate option to fill in blank 4.

- A. Shrinkage
- B. Glitch
- C. Precedent
- D. Curb

15. Select the most appropriate option to fill in blank 5.

- A. Muddling
- B. Ambitious
- C. Tumultuous
- **D.** Enjoyable

Directions (Q16–Q20): Arrange the following sentences to form a coherent paragraph.

16. Arrange the following sentences to form a coherent paragraph

- **P)** With fears of a repeat of the 2008 financial crisis gaining traction, central banks across the world have announced a coordinated response to ensure liquidity via enhanced swap lines to stabilize the financial system.
- Q) Another bank has fallen in the midst of the ongoing turmoil in global financial markets.
- R) Credit Suisse's fall comes only days after the collapse of three banks in the US.
- **S)** However, concerns remain that the collapse of these banks is just the "first domino" to fall.
- A. QRSP
- B. QRPS
- C. RQSP
- D. RQPS

17. Arrange the following sentences to form a coherent paragraph

P) The scheme's limited success can be seen from tomato now selling at Rs 7-10 per kg in Karnataka's Kolar and Maharashtra's Junnar wholesale markets, while retailing at Rs 26-27 in not-too-far-away Bengaluru and Pune.

- **Q)** In the 2018-19 Union budget, the Narendra Modi government announced a new Operation Greens scheme in tomatoes, onions and potatoes (TOP) similar to the successful Operation Flood programme for milk.
- **R)** The aim was to develop a value chain for reducing extreme price fluctuations in the three basic vegetables, besides enhancing farmers' realisations and improving their share of the consumer rupee.
- **S)** Recent protests against low prices by Maharashtra's onion growers have included relay hunger fasts, stoppage of auctions at major mandis and a 200-km march to Mumbai.
- A. QRSP
- B. QRPS
- C. RQSP
- D. RQPS

18. Arrange the following sentences to form a coherent paragraph

- **P)** The "flush" season is October-March when buffaloes and cows normally produce more.
- **Q**) Falling global prices have made imports of wheat more feasible, adding to the relative comfort.
- **R)** Dairies are struggling to procure milk even for meeting winter and springtime demand during the current flush season.
- **S)** Unlike in the case of wheat, dairies are entering the summer with hardly any skimmed milk powder or fat stocks.
- A. PQRS
- B. QPRS
- C. PQSR
- D. QPSR

19. Arrange the following sentences to form a coherent paragraph

- **P.)** Moody's Investors Service placed the ratings of six US banks on review for possible downgrades over concerns about the health of regional financial firms.
- **Q.)** The collapse of Silicon Valley Bank continues to have ripple effects across the financial system.
- **R.)** US authorities have intervened aggressively in the case of Silicon Valley Bank to limit the risk to the broader financial system.
- **S.**)The government and regulators have guaranteed that depositors will have access to all their money, even uninsured deposits.
- A. RQPS
- B. QRPS
- C. RSPQ
- D. RQSP

Directions: In the following questions, some part of the sentence is underlined. Which of the options given below the sentence should replace the part underlined to make the sentence grammatically correct. If the sentence is correct as it is given then choose option D 'No Correction required' as the answer.

- 20. It being very late, Manoj <u>could not return back</u> from Meerut last night
 - A. Could not returned back
 - B. Should not be returned back
 - C. Cannot be return back
 - D. Could not return

Answers

1. C 2.C 3.C 4. C 5. D 6. D 7.A 8.B 9.C 10.C 11.C

12. A 13.A 14.C 15.B 16.B 17.B 18.A 19.D 20. D Practice Exercise

Explanations

1. C) The NRF intends to draw the majority of its budget from the private sector.

While both the United States's National Science Foundation and the European Research Council fund research, the distinctive feature of India's NRF, as mentioned in the passage, is its plan to source ₹36,000 crore of its ₹50,000 crore budget from the private sector. This emphasizes the NRF's strategy to engage and involve the private sector more intensely in research funding.

2. C.) In countries like China, the U.S., and Israel, the private sector contributes almost double the percentage towards research expenditure than in India.

The passage states that in countries such as China, the U.S., and Israel, the private sector contributed nearly 70% of the research expenditure. In contrast, India's private sector only contributed about 36% of the country's total research expenditure. This indicates that the private sector's contribution to research expenditure in these countries is almost double that of India's private sector contribution.

3. C. Analytical

The passage takes a comprehensive look at the National Research Foundation (NRF) Bill, comparing India's research funding scenario with other countries, and discussing possible measures and challenges associated with increasing private sector funding. It does not merely express hope or pessimism but provides an in-depth analysis of the current situation and potential strategies.

4. C) The introduction of the National Research Foundation Bill and the challenge of attracting private sector funding for research in India.

The central theme of the passage revolves around the introduction of the NRF Bill in 2023 and the challenges associated with its plans to draw a significant portion of its budget from the private sector. While the passage does touch upon other topics such as philanthropy and CSR, these topics are discussed in the context of the primary theme, which focuses on the NRF Bill and private sector research funding.

5. D) The private sector in India contributed about 36% of the total research expenditure in 2019-20.

The passage explicitly mentions that "In countries such as China, the U.S. and Israel, the private sector contributed nearly 70% of the research expenditure whereas in India, this was only about 36% of India's total research expenditure — roughly ₹1.2 lakh crore — in 2019-20."

6. D. One suggestion to execute the NRF's plan is to have funds from private companies' CSR obligations directed to the NRF.

The passage mentions that one of the suggestions for executing the NRF's plan of attracting more private money is to have the funds private companies allot for their CSR obligations

directed towards the NRF. Option D correctly captures this point from the passage. Options A, B, and C are false statements based on the information provided in the passage.

7. A. Enthronement

Coronation (noun) — Enthronement, crowning, inauguration, investiture, enthroning समरोह "Coronation" refers to the ceremony of crowning a king or queen. "Enthronement" is a synonym, as it also means the act of installing someone on a throne or in a position of power.

8. B. Extravagant

Lavish (adjective) – Luxurious, opulent, sumptuous, grand, extravagant शानदार
"Lavish" is used to describe the elaborate and grand nature of the ceremony. "Extravagant" is a synonym, as it also means spending a lot of resources, especially money, in a luxurious or wasteful manner.

9. C. Self-seeker

Samaritan (noun) – Good person, helper, supporter, benefactor, aid अच्छा मददगार व्यक्ति "Samaritan" refers to the members of the royal family working towards the greater good. An antonym would be "self-seeker," which refers to someone who is primarily concerned with their own interests and welfare, rather than the welfare of others.

10. C. Abandonment

Aegis (noun) — Protection, support, sponsorship, backing, patronage संरक्षण
"Aegis" refers to the support and guidance. An antonym would be "abandonment," which means to give up or withdraw support, protection, or help from something or someone.

- 11. Stock-taking (adjective) assessment, evaluation, inventory, review, audit आकलन
 - C) 'Stock-taking' का प्रयोग होगा क्योंकि यह term तब उपयोग होता है जब किसी परिस्थिति, समीक्षा या मौलिक विचार को मान्यता दी जाती है। यहाँ पर, G20 की बैठक के परिणाम और उसकी रणनीति पर विचार करने की बात की गई है, इसलिए 'Stock-taking' शब्द सबसे उपयुक्त है।

'Stock-taking' should be used because this term is often used when referring to a review or fundamental consideration of a situation. Here, there is mention of reflecting on the outcomes of the G20 meeting and its strategy, hence 'stock-taking' is the most appropriate term.

- Soaring (adjective) rising, mounting, climbing, spiraling, increasing, elevated बढ़ते
- Stuttering (adjective) stammering, halting, faltering, stumbling লইডারা

12. Bridge (verb) – to reduce or lessen कम करना

A) 'Bridge' का प्रयोग होगा क्योंकि यह शब्द जब दो विपरीत पक्षों को मिलाने या एकत्र करने का संदर्भ होता है तभी उपयोग होता है। यहाँ "Russia-West divide" को देखते हुए, 'Bridge' शब्द उपयुक्त है। 'Bridge' should be used because the term is often used in the context of connecting or bringing together two opposing sides. Given the reference to the "Russia-West divide", 'bridge' is apt.

- Blow (verb) cause (something) to move; propel हवा चलना(मंदी)
- Clock (verb) register, record, log दर्ज करना
- Alter (verb) –change, amend, improve, modify, convert बदलना
- 13. Communique (noun) official communication, press release, bulletin विज्ञिप्त
 - A) 'Communique' का प्रयोग होगा क्योंकि यह शब्द आमतौर पर सरकारी या अधिकारिक संदेशों को दर्शाने के लिए उपयोग होता है। यहाँ वित्त मंत्री ने एक संदेश जारी किया है, इसलिए 'Communique' शब्द सही है।
 - · 'Communique' should be used as this term is typically used to represent official or governmental messages. In this context, the finance minister has issued a statement, making 'communique' the right term.
 - Nerve (noun) worried, nervous feelings घबराहट, परेशानी
 - Headwind (noun) a force or influence that inhibits/restrict progress विपरीत परिस्थिति
 - Cloud (noun) used to refer to a state or cause of gloom, suspicion, trouble, or worry उलझन, संदेह
- 14. **Precedent** (noun) example, model, case law, paradigm, preceding मिसाल, पूर्व उदाहर C) 'Precedent' का प्रयोग होगा क्योंकि इसे पहले कभी नहीं किया गया था, जिससे एक उदाहरण स्थिर हो। इसलिए, इस संदर्भ में 'precedent' शब्द उपयुक्त है।
 - · 'Precedent' should be used because it refers to something done or established as an example or guide for future situations. Therefore, in this context, 'precedent' is the appropriate term.
 - Shrinkage (noun) Reduction, decrease, decline, contraction, fall, drop कमी
 - Glitch (noun) Malfunction, bug, anomaly, problem, hiccup गड़बड़
 - Curb (noun) Restriction, limit, control, check रोक, प्रतिबंध
- 15. **Ambitious** (adjective) determined, aspiring, motivated, enterprising, driven महत्वाकांक्षी

 B) 'Ambitious' का प्रयोग होगा क्योंकि सरकार का प्रयास एक joint statement के लिए समझौता

 करने का प्रयास करना एक उच्च लक्ष्य और साहसी प्रयास माना जाता है। इसलिए, 'Ambitious' यहाँ पर

 सबसे उपयुक्त शब्द है।

'Ambitious' should be used because the government's attempt to negotiate a joint statement is seen as aiming high and a daring effort. Thus, 'ambitious' is the most suitable term here.

- Muddling (noun) Disorder, confusion, disorganizing, mess up गड़बड़, अव्यवस्था
- Tumultuous (adjective) Turbulent, confused, chaotic, disorderly, noisy, agitated 3থন-দ্থন
- 16. **QRPS**

The paragraph talks about the recent fall of Credit Suisse in the midst of the ongoing turmoil in global financial markets, which has raised concerns of a repeat of the 2008 financial crisis. The paragraph starts with sentence Q, which introduces the topic of Credit Suisse's fall. Sentence R provides additional information about the recent collapse of three banks in the US, which adds to the concerns. Sentence P then talks about the coordinated response of central banks across the world to stabilize the financial system, which is a significant step to prevent the contagion. Sentence S concludes the paragraph by stating that despite these measures, there are concerns that the collapse of these banks may trigger a series of events leading to further financial instability.

17. **QRPS**

The paragraph is about the Operation Greens scheme launched by the Modi government to reduce price fluctuations in tomatoes, onions and potatoes. Sentence Q introduces the topic of the paragraph and sentence R explains the aim of the scheme. Sentence P talks about the limited success of the scheme in reducing price fluctuations in tomatoes. Sentence S talks about the recent protests by onion growers against low prices, which indicates that the scheme has not been very successful in achieving its goals. Therefore, the correct order of the sentences is Q-R-P-S.

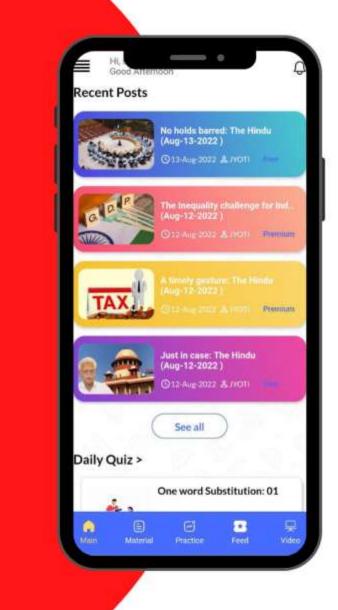
18. **PQRS**

The paragraph discusses the difference in the impact of falling global prices on wheat and milk production. Sentence P This introduces the concept of the "flush" season, when milk production is higher. Q: This talks about the feasibility of importing wheat due to its falling prices. It's an unrelated idea to the "flush" season but gives context to wheat importation. R: This refers to the "flush" season introduced in P, indicating difficulty in procuring milk during that period. This means R should come after P. S: This contrasts the situation of dairies with wheat, suggesting a sequence where Q should be followed by S. Hence, the correct sequence is PQRS.

19. **RQSP**

This paragraph discusses the aftermath of the collapse of Silicon Valley Bank (SVB) and the steps taken by US authorities to limit the risk to the broader financial system. The paragraph begins with sentence R, which states that US authorities have intervened aggressively in the case of SVB to limit the risk to the broader financial system. The next sentence, Q, highlights that the collapse of SVB has had ripple effects across the financial system. Sentence S provides further details about the steps taken by the government and regulators to guarantee access to depositors' money. Finally, sentence P talks about the possible downgrades of ratings of six US banks by Moody's Investors Service over concerns about the health of regional financial firms.

- 20. 'back' का प्रयोग अनावश्यक है क्योंकि 'return' का अर्थ है 'come back/go back' अर्थात् 'वापस आना / वापस जाना ' : जैसे
 - i. He returned from Delhi.
 - ii. He came back from Delhi.
 - Use of 'back' is Superfluous as 'return' means 'come back/go back'; As-
 - (i) He returned from Delhi.
 - (ii) He came back from Delhi.



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