



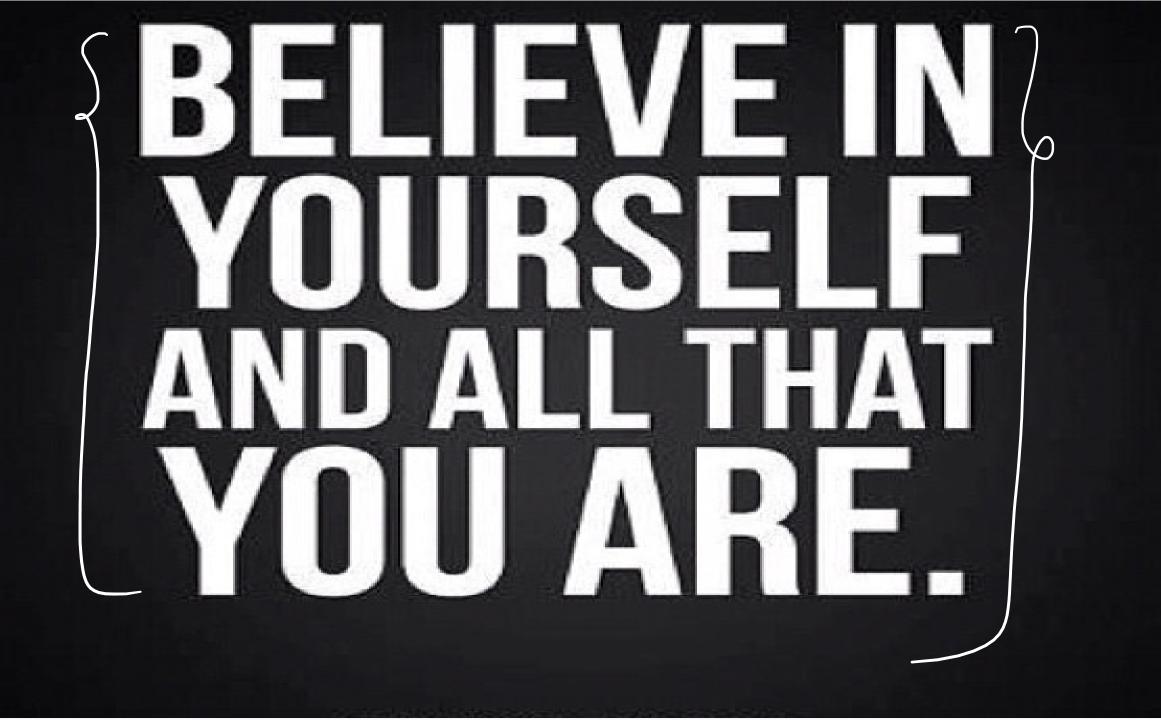


## THE HINDU NEWSPAPER ANALYSIS

## 50 WORDS DAILY

#### MOST IMPORTANT VOCABULARY





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TOPICS WE WOULD COVER

CHECK YOUR PROGRESS

 a) synonyms
 b) antonyms
 c) one word
 d) idioms





 VOCABULARY FROM ARTICLE + ANALYSIS+ spotting errors

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## LET'S CHECK YOUR PROGRESS







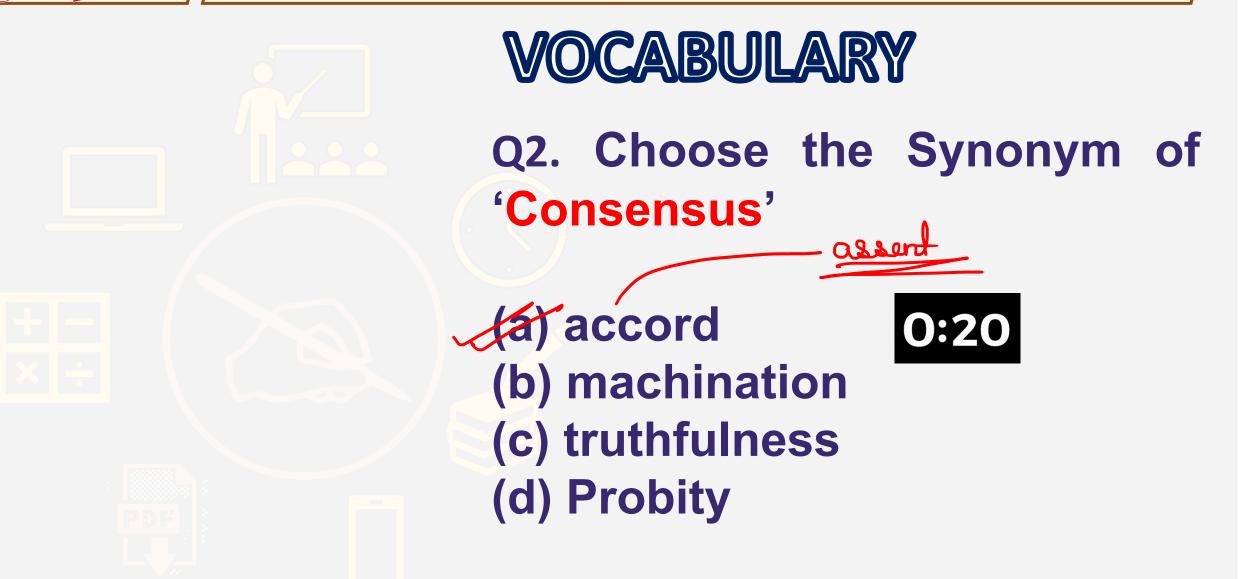
-0-25

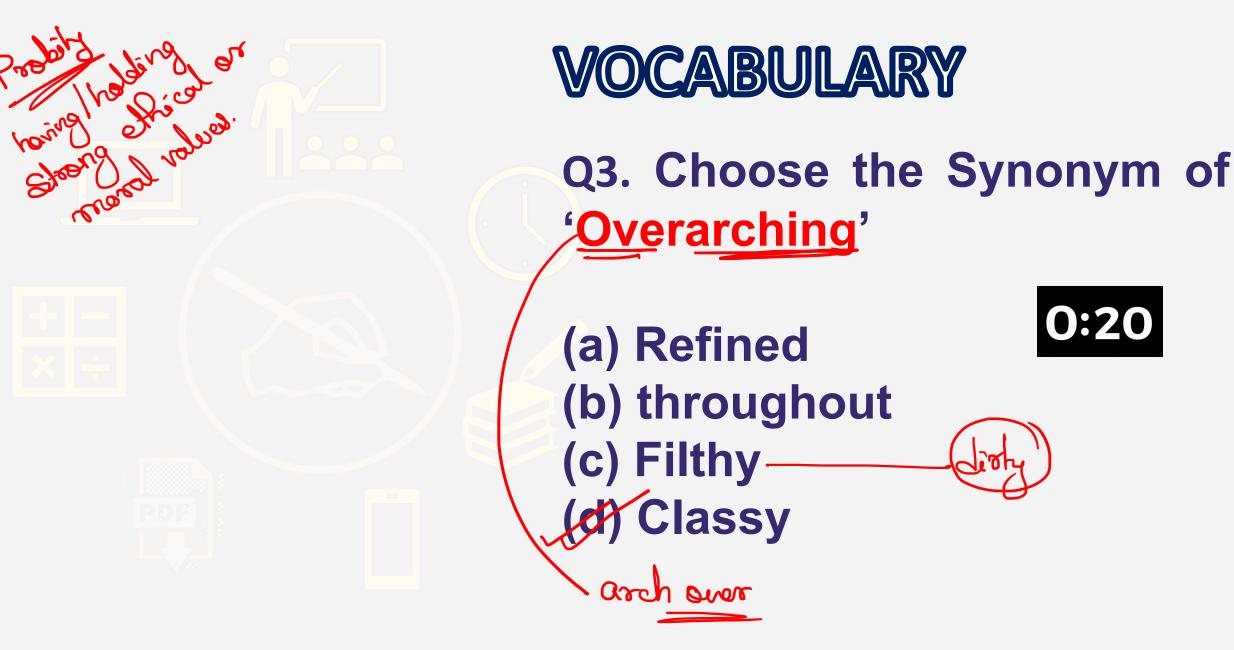
(=)

**VOCABULARY** Q1. Choose the Synonym of 'Unsustainable'

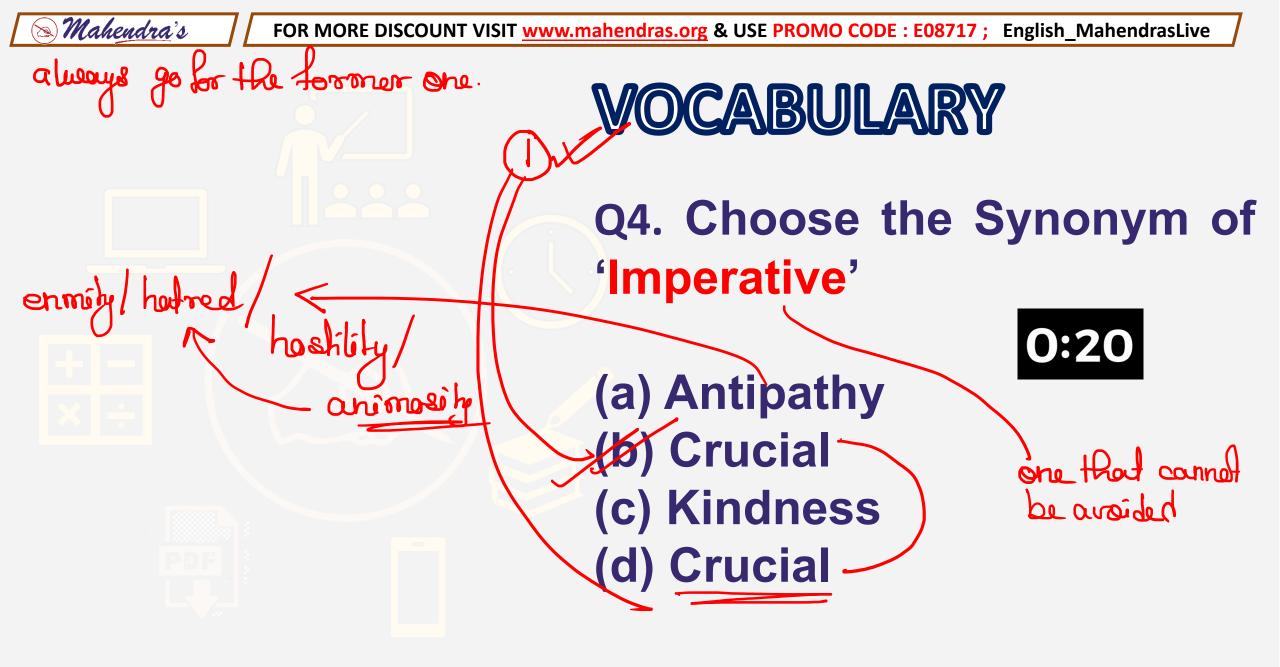
(a) Colluded (b) <u>unsuitable</u> (c) joined (d) involved

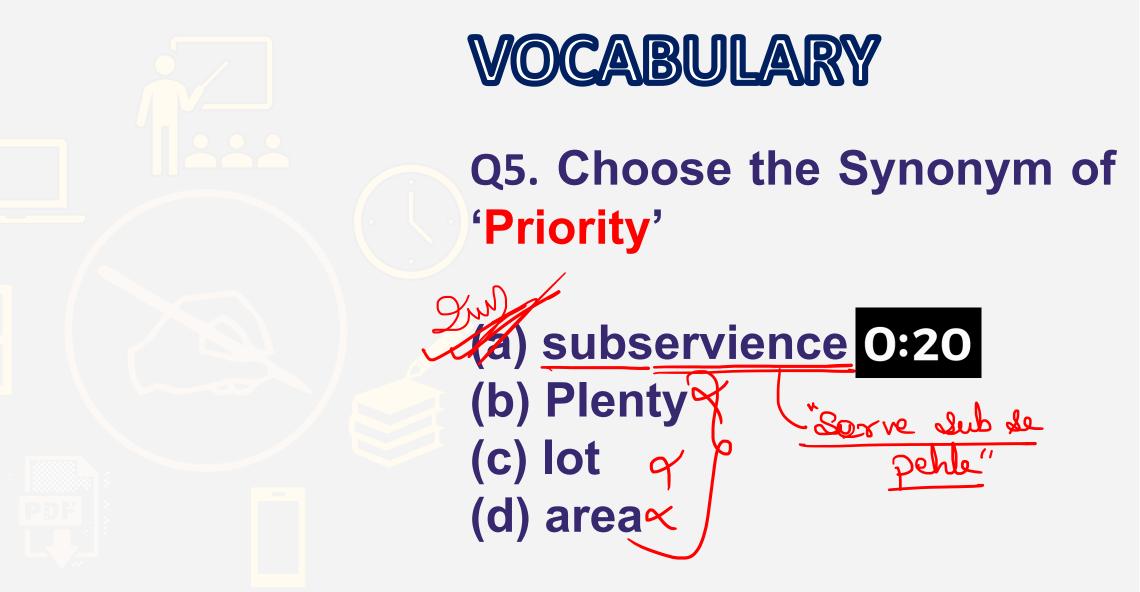






### 0:20











Q6. Choose the Antonym of 'Linkage'

(a) provision
(b) connection
(c) deletion
(d) exercise

VOCABULARY



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Cauch - polato

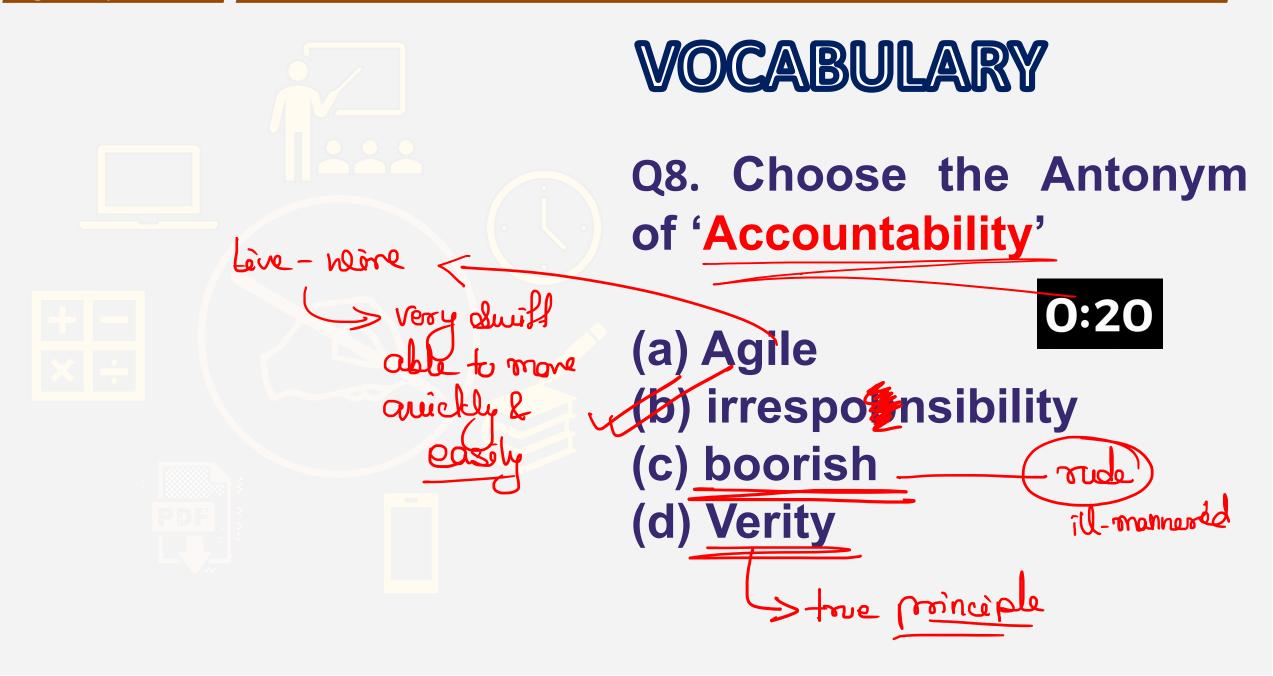
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# Q7. Choose the Antonym of 'Ambitious'

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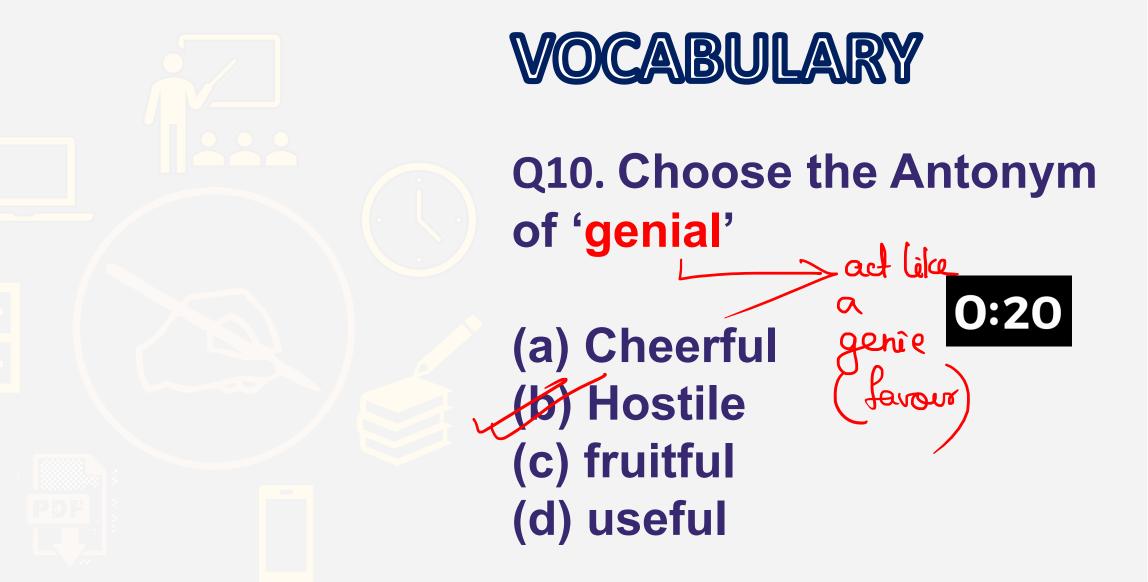
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VOCABULARY

Q9. Choose the Antonym of 'Executing'

(a) Counterfeit (b) artificial (c) unreal (d) abandon

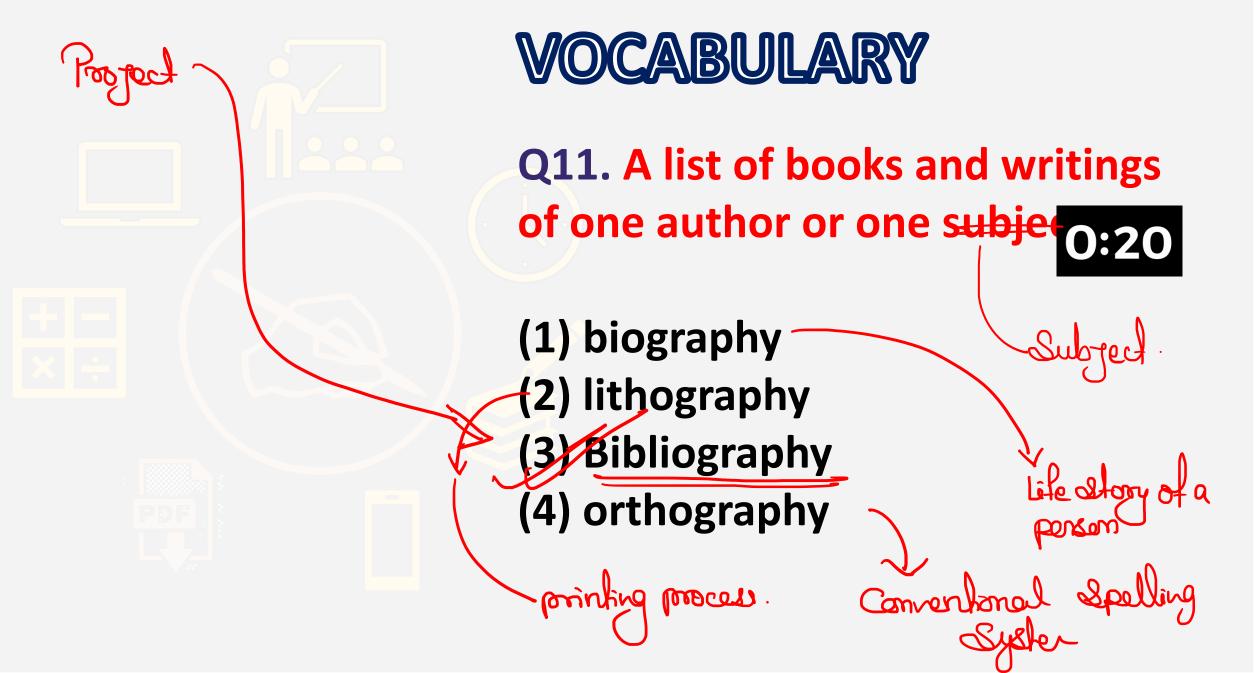








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Q12. Yearly celebration of a date or an event.

(1) birthday
(2) jubilee
(3) anniversary
(4) centenary





Q13. A list of the names of books

VOCABULARY

(1) epilogue
(2) dialogue
(3) catalogue
(4) prologue





VOCABULARY Q14. A person who readily believes others. (1) <u>credible</u> work to be (2) <u>credulous</u> (3) sensitive (4) sensible

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leacher VOCABULARY Very good Tuerag Q15. Has an evil reputation. Very Spikku (1) notorious (2) malicious 0:20 (3) magnanimous (4) dubious





### VOCABULARY



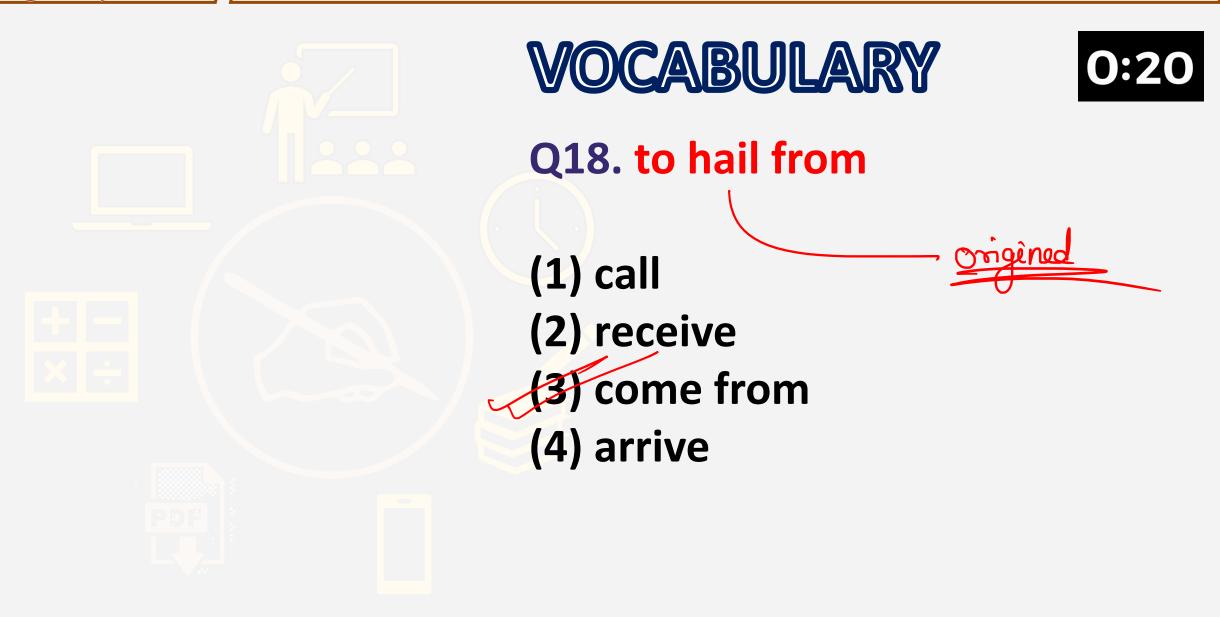
Q16. by fits and starts

(1) regularly
(2) irregularly
(3) certainly
(4) fairly

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VOCABULARY 0:20 Q17. to put an end to (1) continue (2) start 3 stop (4) enforce

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Q19. I took exception to his remarks and left the meeting.

(1) objected
(2) suggested
(3) heard
(4) excused



Q20. He turned a deaf ear to his parents' advice.

(1) listen carefully
(2) refused to obey
(3) big help
(4) attentively





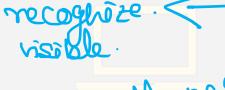
The doubted scientist and her vaccine ARTICLE revolution revolution mark. engin / source. Rule > &ub (&) = Verb(s) Katalin Kariko's once-derided dea led to the genesis of two vaccines continue -> continues to fight COVID-19 and more achievener clur Angolo As the world continue to grapple with (A)/the COVID-19 pandemic, it is rema becoming (B)/increasingly apparent to every country (C)/ that rapid mass vaccination is the only sure way to stop the virus in its tracks(D). Yet, as we debate issues like vaccine inequality and vaccine nationalism, \* have lad we tend somewhat to neglect the science bit. the creation of the NE vaccines, which happens to be the only positive element in the discourse about the pandemic. Indeed, the speed with which the vaccines to fight COVID-19 have been invented and tested is unparalleled in the history of medical science. And one interesting (A) fact about this stunning feat (B)/ of science is that several (C)/women 矣 have led it from the front(D).

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aspire /aim

Start

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These women of science have **emerged** as role models in a field of human **endeavour** that is still **perceived** as 'masculine' and is dominated by men in leading positions. Sarah Gilbert at the University of Oxford led the creation of AstraZeneca's Vaxzevria (known in India as Covishield). In the same **league** we have K. Sumathy, who **steered** the team behind Bharat Biotech's Covaxin. Hanneke Schuitemaker,(A)/ Dutch virologist, guided the(B)/ development of Janssen by Johnson & Johnson.(C)/ Elena Smolyarchuk at Sechenov University led the study for Sputnik V(D).

#### A bold idea



However, the scientist who should be **feted** the most for her work on developing vaccines to fight COVID-19 is <u>Katalin Kariko</u> (a Hungarianorigin biochemist working in the (A)/ U.S. Dr. Kariko has not only led the creation of the Pfizer-BioNTech vaccine,(B)/ which is one of the more effective, but in doing so, (C)/she has also invented and perfected a new technique involving a molecule called the mRNA. (D)

Juid

This has revolutionised biotechnology, paving the way for unheard-of miracles in drug development.

The mRNA (messenger-Ribonucleic Acid) is a molecule naturally manufactured by animal cells that gives signals to cells about which proteins to make. That is, it carries to the cells vital genetic information upon which protein synthesis, one of the most critical physiological functions, thoroughly depends. Yet, no one before Dr. Kariko thought mRNA could be modified in labs to harness their code-carrying ability for triggering the manufacture of specific proteins by cells — proteins that would generate precise antibodies needed to fight particular antigens or diseasecausing micro-organisms.

This idea, of tweaking the 'message' in the mRNA for customised signalling to cells, was simple and logical, like many breakthrough ideas in science. But it was also stunningly bold. In effect, Dr. Kariko was aiming to play God with a cellular function so foundational that it has always been taken for granted. Expectedly, her idea was treated by the whole scientific community in the U.S. as odd and improbable. It was repeatedly rejected by funding bodies, and Dr. Kariko struggled to get a grant or even a lab to work consistently on the mRNA.

#### **Two chance encounters**

Yet, she held on to her idea, working on it sporadically in shared labs, while surviving on a low-end, insecure job at the University of Pennsylvania. And this — the lack of grants or a solid professional position — meant more rejections and more isolation.

Dr. Kariko was at the point of giving up when a chance encounter at a photocopy centre one morning in 1998 changed her decision. Dr. Drew Weissman, an influential biotechnologist working at UPenn, was moderately impressed by Dr. Kariko's idea and agreed to share his lab and other resources with her.

It was here that Dr. Kariko honed the technology to modify the mRNA and tested it on mice. After an initial hiccup, she was successful. The modified mRNA was able to trigger targeted protein synthesis in mice with no negative side effects. Yet — such is the hold of convention and status on the scientific establishment — there was hardly any excitement around the invention. Dr. Kariko remained where she was and what she was until another chance meeting at a conference with Uğur Şahin, the CEO of BioNTech.

Dr. Kariko, an academic, became the vice-president of BioNTech RNA Pharmaceuticals, using her technology to manufacture an influenza vaccine.

And then COVID-19 hit the world. In February 2020, when the virus was still mostly confined to China, her employer seemed to sense it was going to be much worse. He and Dr. Kariko decided to start working on a vaccine against the novel pathogen using the mRNA technology. By then BioNTech had partnered with Pfizer, and Dr. Kariko's work led to the development of their vaccine against COVID-19. Moderna later used the same technology to develop their vaccine. Thus, Dr. Kariko's oncederided idea led to the genesis of two of the most effective anti-COVID-19 vaccines, in the process establishing an epoch-making new technology in biomedicine.

## Lessons from the invention

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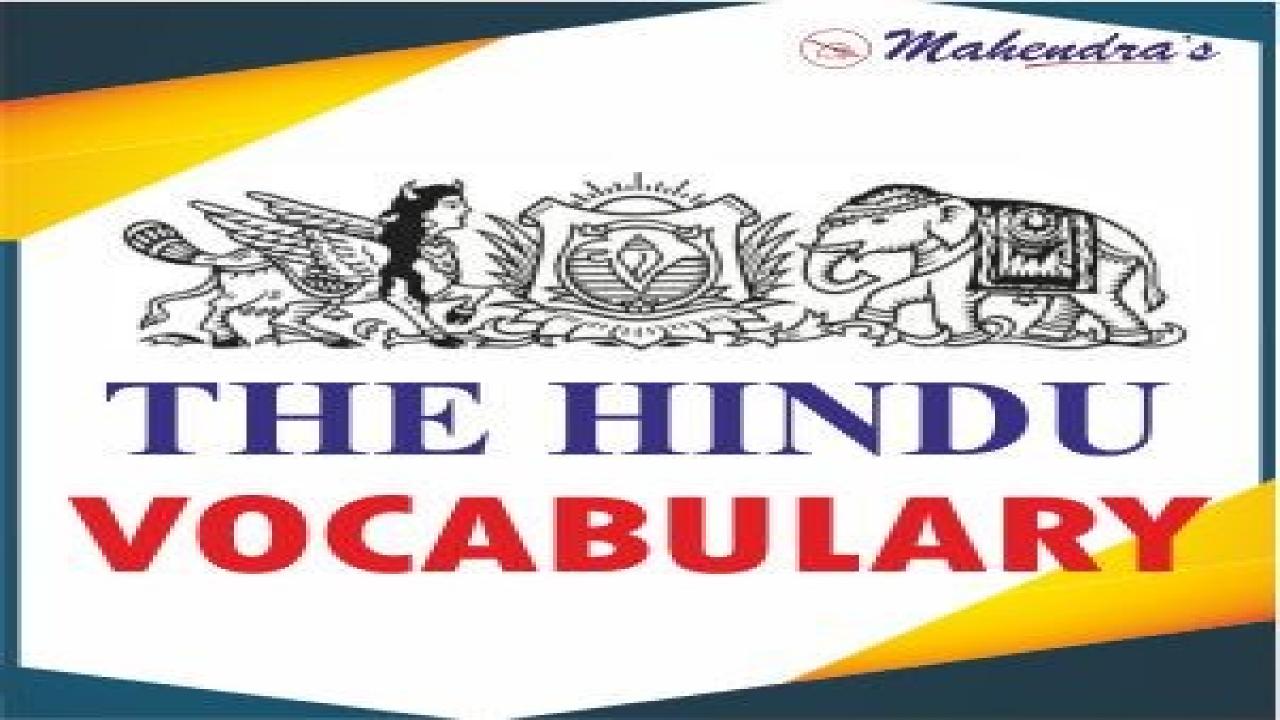
Dr. Kariko's brilliance as an innovator underscores the point that women can be as good as men in science — a point that should have been well-established by now, but which is hardly the accepted view among people even in the Western world. Her revolutionary invention, one hopes, would go some way in negating sexist assumptions about women in science, not many of whom achieve such spectacular success but all of whom contribute to the collective endeavour of human science. Dr. Kariko's career, moreover, should have a lesson for all systems of power everywhere — that when some idea challenges the norms or conventions of a system, it is the system that needs to stretch itself in order to give it a chance. Entrenched conventionality is the bane of all human endeavours, and especially of science, which is synonymous with progress.

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When Dr. Kariko was invited to a vaccination site for health workers at UPenn, in December 2020, the otherwise emotionally stable woman was moved by the sight of the big crowd waiting to get a shot of her vaccine. And when the doctors broke into spontaneous clapping as she and Dr. Weissman walked past them in a hall, she gave in and "cried a bit" in joy, she told Gina Kolata of The New York Times. Her life's dream, which she had been chasing since she was 22, was finally realised, and a long saga of doubt, implied insult, and unrewarded toil had come to an end. I believe Dr. Kariko deserves the Nobel Prize in Medicine for her revolutionary idea and her incredible hard work. Hers is an idea that has opened up the scope for endless possibilities in drug development.

Suparna Banerjee is an academic and commentator based in Bengal



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1) derided (verb) हंसी उड़ाना–ridicule, mock, make fun of

2) Genesis (noun) उत्पत्ति –origin, source, root, beginning, commencement

3) grapple (verb) सामना करना–wrestle, struggle, tussle, fight

4) apparent (adj) <del>돈पण्ट</del>– clear 🙈 Mahe<u>ndra</u>'s

5) Discourse (noun)

भाषण-discussion, conversation, talk, dialogue

6) stunning (adj) अद्भुत–remarkable, extraordinary, staggering, incredible

7) feat (noun) उपलब्धि-achievement, accomplishment, attainment

8) emerged (verb) उभरना-come out, appear, turn up 🔊 Mahendra's

9) endeavour (verb) प्रयत्न करना– aspire, aim, seek, try

11) league (noun) संयोग– alliance, federation, union, association

12) steered (verb) मार्ग दिखाना-guide, direct, manoeuvre, navigate 🔊 Mahendra's

13) feted (verb) कुख्यात- defamed, libeled, maligned, slandered 14) devious (adjective) कपटी- deceitful/ duplicitous/ insidious 15) notched (verb) खाँचेदार– mark/incise/engrave 16) rig (verb) वस्र पहनना- dress/ equip/ furnish







5) INCARCERATE (VERB): blind the bars (क़ैद कर देना): imprison

<mark>4) PRODIGIOUS (ADJECTIVE)</mark>: (विलक्षण): enormous

<mark>3) RELISH (NOUN):</mark> (प्रसन्नता): gusto

2) RADICAL (ADJECTIVE): (विस्तृत): thoroughgoing

1) ESCHEW (VERB): (त्याग करना): give up

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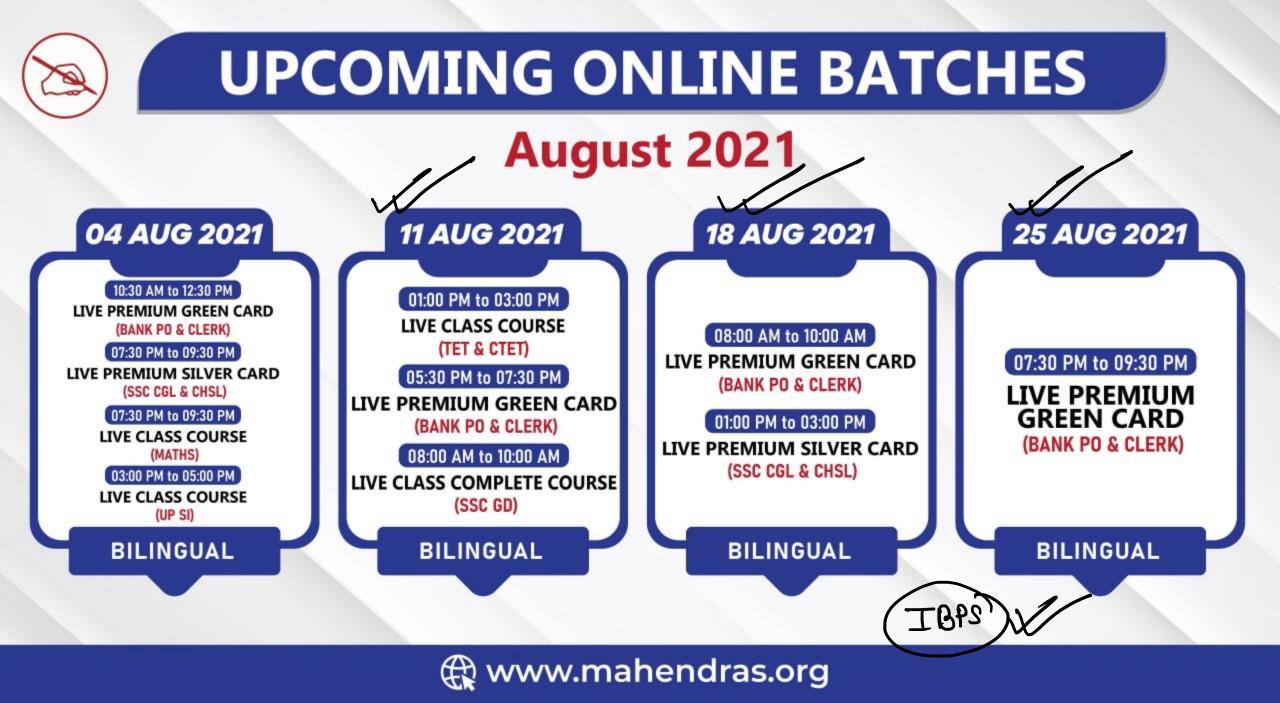
<mark>6) GALL (VERB)</mark>: (खिजाना): irritate

**7) GARRULOUS (ADJECTIVE):** (बातूनी): talkative

<mark>8) ABET (VERB):</mark> (सहायता करना): assist

9) RUDIMENTARY (ADJECTIVE): (अपरिष्कृत): primitive

**10) FABRICATE (VERB)**: (निर्माण करना): make



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