## More vaccine choices: On Bharat Biotech's intranasal COVID-19 vaccine

 The development of an intranasal vaccine against COVID-19 is a welcome initiativeNearly three months after Bharat Biotech's intranasal COVID-19 vaccine was granted emergency use approval for primary vaccination of adults, the vaccine has now been given emergency use approval as a heterologous booster in adults over 18 years. Unlike Covaxin, an inactivated vaccine, the intranasal vaccine uses a viral vector platform that utilises a recombinant adenovirus as a vector. As a heterologous booster, the intranasal vaccine was tested on around 875 participants, immunised earlier with two doses of either Covaxin or Covishield. Among the advantages intranasal vaccines have over vaccines is that they can potentially prevent SARS-CoV-2 infection at the point of viral entry in the respiratory tract. They are also far easier to administer. As in the case of the intranasal vaccine for primary vaccination, the booster dose too was tested only for safety and immunogenicity, but not efficacy. Unlike the vaccines tested early in the pandemic, evaluating the efficacy of a new vaccine for primary vaccination and heterologous booster at this stage of the pandemic might be very challenging as a vast population has been already vaccinated and/or naturally infected, especially with the Omicron variant.

However, even higher immunogenicity need not necessarily translate into higher efficacy, particularly the ability of the vaccine to prevent infection. The SARS-CoV-2 virus has now acquired an even greater ability to evade existing immunity and cause an infection. Since the intranasal vaccine does not have the virus spike protein with newer mutations, it is important to study within a defined time period the effectiveness of the intranasal vaccine to prevent infection and severe disease and death when used as the primary vaccination and as a booster dose. Alternatively, the vaccine's effectiveness can be tested in human challenge studies. Studying this becomes important as the results of an intranasal vaccine in the phase-1 trial using the Oxford vaccine - an adenovirus-vector vaccine - originally developed for intramuscular administration, elicited antigen-specific mucosal antibody responses only in a "minority" of participants, and the antibody levels were far lower than from a natural infection. The Oxford vaccine, as an intranasal vaccine, did not elicit "consistent mucosal antibody response nor a strong systemic response". The demand for vaccines for primary vaccination has been reducing since the third wave peaked in end-January while those for boosters has been low even when available for free for 75 days beginning mid-July. Yet, the development of an intranasal vaccine, a new vaccine platform for India, is welcome, and having a safe and effective vaccine that can prevent infection remains a high priority.
[Practice Exercise]
$>$ Red/blue coloring of words in the sentence indicates subject verb relationship; where 'red' denotes 'subject' and 'blue' denotes 'verb'.

## Vocabulary

1. Intranasal vaccine (noun) -a vaccine administered to a person via the nose and does not require a needle
2. Grant (verb) - allow, accord, permit, afford मंजूरी देना
3. Heterologous booster (noun) - a person is injected with the different vaccine that was used for the two previous doses.
4. Unlike (preposition) - in contrast to; different from के विपरीत; से भिन्न
5. Recombinant (adjective)-relating to or denoting an organism, cell, or genetic material formed by recombination. पुनः संयोजक
6. Adenovirus (noun) -any of a group of DNA viruses first discovered in adenoid tissue, most of which cause respiratory diseases; that typically cause mild coldor flu-like illness. विषाणुओं के बड़े समूह में से एक जिसके द्वारा ऊपरी श्वसन-पक्ष में संक्रमण होता है
7. Vector (noun) - an organism, typically a biting insect, that transmits a disease from one person to another.
8. Immunise (verb) -inoculate, vaccinate, inject, protect from प्रतिरक्षित करना
9. Potentially (adverb) - Probably, possibly संभावित
10. Respiratory (adjective) -relating to or affecting respiration or the organs of respiration. श्वास प्रश्वास सम्बन्धी
11. Tract (noun) - a major passage in the body; group of nerves पथ, रास्ता
12. Administer (verb) - dispense or apply (jab, vaccination). टीका लगाना
13. In the case of (phrase) - In reference to; in the instance of; concerning. के मामले में
14. Immunogenicity (noun) - the ability of cells/tissues to provoke an immune response प्रतिरक्षण क्षमता
15. Efficacy (noun) - effectiveness, efficiency, usefulness प्रभावकारिता
16. Evaluate (verb) - Assess, gauge, estimate, calculate, weigh, value मूल्यांकन करना
17. Vast (adjective) - immense, enormous, huge, great, massive विशाल
18. Variant (noun) - variation, form, alternative, type प्रकार
19. Evade (verb) - avoid, dodge, elude, escape, sidestep बचना
20. Immunity (noun) - Protection, resistance, resilience प्रतिरक्षा
21. Spike protein (noun) - The spike protein is located on the outside of a coronavirus and is how SARS-CoV-2 (the coronavirus) enters human cells.
22. Mutation (noun) - variation, transformation, change उत्परिवर्तन
23. Effectiveness (noun) - Efficacy, successfulness, productiveness, fruitfulness प्रभावशीलता
24. Severe (adjective) - grave, acute, very bad, serious, critical गंभीर
25. As the results of (phrase) - because of something के कारण/ के परिणामस्वरूप
26. Intramuscular (adjective) - situated or taking place within, or administered into, a muscle. अंतर्पेशीय
27. Administration (noun) - (of relating to vaccine/drug) the action of dispensing, giving, or applying something
28. Elicit (verb) - obtain, extract, draw, educe प्राप्त करना
29. Antigen (noun) - A substance that stimulates the production of an antibody
30. Mucosal (adjective) - of or relating to mucous membranes. श्लेष्मा झिल्ली से संबंधित
31. Antibody (noun) - a protein produced in the blood that fights diseases by attacking and killing harmful bacteria, viruses, etc.
32. Consistent (adjective) - Coherent, even, uniform, harmonious संगत
33. Peak (verb) - reach its highest point, reach the high point चरम पर होना

## Practice Exercise

Direction: (Q1 - Q5): In the following passage some words have been deleted. Fill in the blanks with the help of the alternatives given. Select the most appropriate option for each number.

With the Tamil Nadu Assembly passing once again its earlier Bill seeking to exempt government seats in undergraduate medical and dental courses from the National Eligibility-cum-Entrance Test (NEET), the ball is once again in the $\qquad$ 1 $\qquad$ of Governor R.N. Ravi. The Governor had chosen to return to the House for reconsideration the Bill that was passed in September 2021, questioning the
$\qquad$ 2 $\qquad$ of the Justice A.K. Rajan Committee Report that had given its findings in favour of the passage of such a law. The DMK regime has thrown down the $\qquad$ 3 $\qquad$ as the Constitution is clear as far as the Governor's course of action is concerned. If the Bill is presented to him again, Mr. Ravi is constitutionally bound to grant assent. It is a matter of $\qquad$ 4 $\qquad$ whether the Bill will obtain presidential nod, but the episode raises a question whether the Governor could not have avoided the current situation by reserving the Bill for the President instead of returning it. After all, this is clearly a Bill that requires the President's acceptance - the exemption from NEET is in conflict with the central law that makes it mandatory and, therefore, can only be saved by the President's assent. Regardless of the Bill's merits, the Governor should delay the matter no further. The original intent of the Constitution makers was that the Governor, under Article 200, ought to have no
$\qquad$ 5 $\qquad$ save in the case of a law that undermines the position of the High Court, which he is bound to reserve for the President's consideration.

1. A. Favour
B. Court
C. Approval
D. Sanction
2. A. Tenability
B. Inequity
C. Briefing
D. Perspective
3. A. Encounter
B. Gauntlet
C. Task
D. Undertaking
4. A. Secular
B. Magnitude
C. Speculation
D. Predict
5. A. Fault
B. Disrupted
C. Wisdom
D. Discretion

Directions (Q6-Q7): In the following questions, four words are given in each question, out of which only one word is rightly spelt. Find the correctly spelt word.
6. A. Withhold
B. Withold
C. Witthold
D. Withholld
7. A. Acheive
B. Achieive
C. Achieve
D. Achive

Directions (Q8-Q9): In the following questions, the passage/sentence is split into four parts and named $P, Q, R$ and $S$. These four parts are not given in their proper order. Read the sentence/passage and find out which of the four combinations is correct. Then find the correct answer.
8. P. the latest generation telecommunication technology's ability to serve as an enabler of economic growth and job creation.
Q. Finance Minister Nirmala Sitharaman's Budget announcement that the Government proposes to conduct the "required spectrum auctions" in 2022 to facilitate
R. The Government's keenness to expedite the roll-out was framed by Ms. Sitharaman as being propelled by an appreciation of
S. the roll-out of 5G mobile phone services in fiscal 2022-23 has understandably triggered speculation including about the feasibility of the timeline.
A.QSPR
B.QSRP
C.RPQS
D. RPSQ
9. P. Then the princess came in, and as she passed by them she had something spiteful to say to every one.
Q. The first was too fat: 'He's as round as a tub,' said she.
R. A great king of a land far away in the East had a daughter who was very beautiful, but so proud, and haughty, and conceited, that none of the princes who came to ask her in marriage was good enough for her, and she only made sport of them.
S. Once upon a time the king held a great feast, and asked thither all her suitors; and they all sat in a row, ranged according to their rank-kings, and princes, and dukes, and earls, and counts, and barons, and knights.
A.RSQP
B.SPQR
C.RSPQ
D. SRPQ

Directions (Q10-Q12): In the following questions, a sentence has been given in Active/Passive Voice. Out of the four alternatives suggested, select the one which best expresses the same sentence in Passive/Active Voice.
10. A great man acknowledged me as a flatterer to him.
A. I was acknowledged by a great man to be a flatterer.
B. I was acknowledged by a great man to have been a flatterer.
C. I am acknowledged as a flatterer by a great man.
D. I was acknowledged as a flatterer to a great man.
11. Let us help him.
A. Let him help us.
B. Let he is helped.
C. Let he be helped.
D. Let him be helped by us.
12. Can those happy moments be ever forgotten by me?
A. Shall I ever forget those happy moments?
B. Can I ever forget those happy moments?
C. Will I ever forget those happy moments?
D. Could I ever forget those happy moments?

Directions (13-14): In the following questions, out of the four alternatives, choose the one which can be substituted for the given words/sentence.
13. Cannot be removed or erased
A. Rationalist
B. Indelible
C. Ledger
D. Hallucinogen
14. A woman's drawstring handbag usually made of net used in 18th and 19th century
A. Unpleasant
B. Reticule
C. Accomplice
D. Allegory

Directions (15-16): Choose the alternative which best expresses the meaning of the Idiom/Phrase.
15. Walk a fine line
A. To seek protection or shelter from some source of danger or hardship in something or some place
B. To try to avoid (something) because of nervousness, fear, dislike, etc.
C. To issue a challenge to someone
D. To achieve or maintain a balance

## 16. A tall ask

A. A request that is difficult to fulfill
B. A procedure adopted to deal with a situation.
C. Be accepted as adequate or satisfactory
D. Used to introduce one of two or more possible reasons for something, the remainder of which may or may not be stated.
Directions (17-18): choose the word opposite in meaning to the given word.
17. BENIGN
A. Rigorous
B. Malignant
C. Replete
D. Perquisite
18. GUNG-HO
A. Apathetic
B. Hegemony
C. Notorious

Direction: (19-20): In the following question, out of the four alternatives, choose the word which best expresses the meaning of the given word.
19. PARE
A. Compendium
B. Curtail
C. Manifest
D. Mortify
20. RECKON
A. Milieu
B. Awry
C. Expect
D. Pivotal

Directions (21-22): 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.
21. Hardly had he finished his work than the peon arrived with another file.
A. When
B. Then
C. While
D. No improvement
22. Rahul has no right to take a claim on his father's property as he did no look after him in his old age.
A. To make a claim
B. To stake a claim to
C. To demand
D. No improvement

Directions (Q23- Q25): Find out the error, if any -
23. Since the beginning (A)/ of the term, we are spending (B)/ a lot of time on poetry. (C)/ No error(D)
24. Your (A)/ sister cooks well (B), isn't she? (C)/ No error(D)
25. Dickens' novels, (A)/ like many writers, (B)/ are largely autobiographical. (C)/ No error(D

## Answers

1. B
2. A
3. B
4. C
5. D
6. A
7. C
8. B
9. C
10. D
11. D
12. B
13. B
14. B 15 D
15. A
16. B
17. A
18. B
19. C
20. A
21. B
22. B
23. C
24. B

## Explanation

1. The ball is in someone's court (phrase) - it is time for someone to deal with a problem or make a decision.
2. Tenability (noun) - Acceptability समर्थनीयता
> Inequity (noun) - unfairness, injustice असमानता
> Briefing (noun) - A meeting for giving information or instructions. वार्ता
> Perspective (noun) - outlook, viewpoint, point of view, standpoint दृष्टिकोण
3. Throw down the gauntlet (phrase) - To issue a challenge to someone चुनौती देना
4. Speculation (noun) - conjecture, hypothesizing, supposition, guesswork चिंतन/विचार
> Secular (noun) - Occurring once every century or similarly long period सौ बरस मे एक बार आनेवाला
> Magnitude (noun) - immensity, hugeness, expanse अत्यधिकता
> Predict (verb) - forecast, foresee, envisage पूर्वानुमान करना
5. Discretion (noun) - choice, option, judgement, preference विकल्प, स्वनिर्णय
> Fault (verb) - Criticize for inadequacy or mistakes. दोष देना
> Disrupted (adjective) - causing, tending to cause, or caused by disruption बाधित
> Wisdom (noun) - intelligence, understanding, judgement, insight, perception बुद्धिमत्ता
6. Withhold (verb) - conceal, deny, suppress, refuse, hold back रोक लेना
7. Achieve (verb) - reach, accomplish, attain, obtain, carry out प्राप्त करना
8. QSRP

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9. RSPQ

A great king of a land far away in the East had a daughter who was very beautiful, but so proud, and haughty, and conceited, that none of the princes who came to ask her in marriage was good enough for her, and she only made sport of them. Once upon a time the king held a
great feast, and asked thither all her suitors; and they all sat in a row, ranged according to their rank-kings, and princes, and dukes, and earls, and counts, and barons, and knights. Then the princess came in, and as she passed by them she had something spiteful to say to every one. The first was too fat: 'He's as round as a tub,' said she.
13. Indelible - Cannot be removed or erased जो मिट न सके

- Rationalist - Someone who emphasizes observable facts बुद्धिवादी
- Ledger - A book of accounts showing debits and credits खाता बही
- Hallucinogen - A drug that causes one two hallucinate मतिभ्रम

14. Reticule - A woman's drawstring handbag usually made of net used in 18th and 19th century स्त्रियों का जालीदार बटुवा

- Unpleasant - Disagreeable to the senses, to the mind, or feelings अप्रिय
- Accomplice - Helper in a wrong deed or crime पाप-सहभागी
- Allegory - Story in which ideas are symbolized as people रूपक, द्दष्टान्तकथा

15. Walk a fine line (phrase) - to achieve or maintain a balance
16. A tall ask (phrase) - a request that is difficult to fulfill: कठिन काम
17. Benign (adjective) - mild and favourable. कृपालु Antonym:- Malignant (घातक)
> Rigorous (adjective) - Strict; harsh; severe कड़ा; कठोर
> Replete (adjective) - Completely filled; abounding परिपूर्ण
> Perquisite (noun) - A privilege that goes along with a job; a perk रिआयत
18. Gung-ho (adjective) - extremely enthusiastic about doing something, especially going to war उत्साही Antonym:- Apathetic (उदासीन)
$>$ Hegemony (noun) - Leadership, especially of one nation over another नायकत्व, नेतृत्व
> Notorious (adjective) - Famous for something bad कुख्यात
> Sacrilege (noun) - A violation of something sacred; blasphemy अपवित्रीकरण
19. Pare (verb) - Reduce, trim, curtail, cut back, scale down कम करना
> Compendium (noun)-A summary; an abridgment सारांश
> Manifest (adjective) -Visible; evident प्रकट
> Mortify (adjective) - To humiliate अपमानित करना
20. Reckon (verb) - Expect, believe, or suppose मानना
> Milieu (noun) - Environment; surroundings मध्य
> Awry (adjective) - Off course; twisted to one side टेढ़ा, वक्र, विकृत
> Pivotal (adjective) - Crucial केंद्रीय
21. The word 'When' is used with 'Hardly'
22. 'Stake a claim' is a phrase which means to ask for something as one's own.
23. (B) 'are spending' के बदले 'have spent' का प्रयोग होगा क्योंकि वाक्य के प्रारंभ में 'Since the beginning' अर्थात् 'Since + Point of Time' का प्रयोग है और since+ Point of Time का प्रयोग होने पर वाक्य सामान्यत: Present Perfect Continuous या Present Perfect में होता है; जैसे-
i. Since his engagement, he has spent a lot of money on his would be wife.
'have spent' will be used instead of 'are spending' because 'Since the beginning' i.e. 'Since + Point of Time' is used and when since + Point of Time is used, the sentence is usually in Present Perfect Continuous or Present Perfect; As-
i. Since his engagement, he has spent a lot of money on his would be wife.
24. (C) 'isn't she' के बदले 'doesn't she ?' का प्रयोग होगा, क्योंकि Question Tag के Verb का Tense और इसके पहले प्रयुक्त वाक्य के Verb का Tense समान होता है; जैसे-
i. She is late, isn't she?
ii. She comes late, doesn't she?
iii. She came late, didn't she?
> 'isn't she' will be used instead of 'doesn't she?', because Tense of Verb of Question Tag and Tense of Verb of sentence used before it is same; As-
i. She is late, isn't she?
ii. She comes late, doesn't she?
iii. She came late, didn't she?
25. (B) 'like many writers' के बदले 'like those of many writers' का प्रयोग होगा क्योंकि तुलना 'Dickens' novels तथा 'the novels of many writers' के बीच है, और 'the novels' के बदले Pronoun 'those' का प्रयोग करने पर यह 'those of many writers' बन जाता है। अत: 'like those of many writers' का प्रयोग होगा ।

- 'like many writers' will be replaced with 'like those of many writers' because the comparison is between 'Dickens' novels and 'the novels of many writers', and 'the novels' instead of Pronoun 'those' On using ' it becomes 'those of many writers'. Therefore 'like those of many writers' will be used.


