

# Lockdown 4.0 Study Plan

## Day 8



1. Who introduced the term Xylem for water conducting tissue of plants?  
A. Robert Brown  
B. Carl Nageli  
C. Carl Linnaeus  
D. Adolf Engler

2. Which of the following articles of the Indian Constitution envisages the provisions related to the High Courts for Union territories?  
A. Article 242  
B. Article 240  
C. Article 239  
D. Article 241

3. Snow leopard is found in which National Park?  
A. Gangotri National Park  
B. Neora Valley National Park  
C. Pench National Park  
D. Saddle Peak National Park

4. Hathi Mere Sathi is a campaign launched by which Ministry?  
A. Ministry of Environment, Forest and Climate Change  
B. Ministry of Tribal Affairs  
C. Ministry of Tourism  
D. Ministry of Human Resource and Development

5. The book 'Bridgital Nation: Solving Technology's People Problem' has been written by \_\_\_\_\_.  
A. N. Chandrasekaran and Roopa Purushothanam  
B. Kiran Desai and Arundhati Roy  
C. Roopa Purushothanam and Abijit Banerjee  
D. Kiran Desai and Arihant Daga

6. In eukaryotic cells, DNA is organized into long structures which are known as \_\_\_\_\_.  
A. Chloroplast  
B. Mitochondrion  
C. E Coli  
D. Chromosome

7. Which of the following is known as Energy Currency of the cell?  
A. ATP Molecules

B. NADP Molecules  
C. ADP Molecules  
D. Sodium Phosphates molecules

8. Energy released during respiration is stored in the form of \_\_\_\_\_.  
A. Adenosine Tri-Phosphate  
B. Adenosine Tri-Sulphate  
C. Adenosine Tri-Chlorate  
D. Proteins

9. What is the zone of life on earth called?  
A. Ecosystem  
B. Ecology  
C. Biosphere  
D. Biome

10. Which of the following is a characteristic of Sound wave?  
A. These are Longitudinal waves.  
B. It's speed depend upon medium.  
C. They are produced by vibrations.  
D. All of above

Choose the option which best expresses the meaning of the idiom/phrase given below.

11. "Cut to the chase"  
A. To start talking about the important aspects of something  
B. To conclude from obvious fact  
C. To clean solid lines  
D. To be evil tempered

Choose the option which best expresses the meaning of the idiom/phrase given below.

12. "Smell a rat"  
A. To show signs of cowardice  
B. To smell the presence of a rat  
C. To suspect that something is wrong about a situation  
D. To become polite

**Select the most appropriate ANTONYM of the given word.**

13. LAMENT  
A. bemoan  
B. appeal  
C. bleed  
D. celebrate



**Gradeup Green Card**  
Unlimited Access to All 350+ SSC & Railways Mock Tests

**Select the most appropriate option to fill in the blank.**

14. Indian arts draw \_\_\_\_\_ from the idea of devotion in literature and poetry.
- A. extensively
  - B. invisibly
  - C. minutely
  - D. fractionally

**Select the most appropriate option to fill in the blank.**

15. The recalibration of personal income tax slabs was \_\_\_\_\_ as a step towards simplification.
- A. suggested
  - B. abandoned
  - C. abolished
  - D. discontinued

Select the most appropriate option to fill in the blank.

16. The mother said to her son, "You always do what you want. Do you always have to be so \_\_\_\_\_?"
- A. withdrawn
  - B. reasoning
  - C. awkward
  - D. stubborn

**Direction:** Identify the best way to improve the underlined part of the given sentence. If there is no improvement required, select 'no improvement'.

17. Shyamalan's movie 'The Sixth Sense' starring Bruce Willis was a great success but doesn't win all Academy Award as expected.
- A. but did win most
  - B. although it won some
  - C. but didn't win any
  - D. No improvement.

18. Identify the best way to improve the underlined part of the given sentence. If there is no improvement required, select 'no improvement'

- Even If Uma is unable to make it, I can't most definitely come.
- A. No improvement.
  - B. won't definite
  - C. shall most definitely
  - D. needn't more definite

**Direction:** Select the word which means the same as the group of words given.

19. found everywhere
- A. scarce
  - B. unusual
  - C. omnipresent
  - D. rare

**Direction:** Choose the most appropriate option to change the narration (direct / Indirect) of the given sentence.

20. The RWA members said, "We want to see the audited accounts before we make more payments."
- A. The RWA members are saying that they want to see the audited accounts before they make more payments.
  - B. The RWA members said that we want to see the audited accounts before we make more payments.
  - C. The RWA members said that they wanted to see the audited accounts before they made more payments.
  - D. The RWA members said we wanted to see the audited accounts before we makemore payments.

21. Which number in the given series is Incorrect?

- 3, 7, 15, 27, 53, 63
- A. 53
  - B. 63
  - C. 27
  - D. 7

22. Select the correct equation from the given options after interchanging operations '-' and 'x' and numbers '4' and '5'.

- A.  $9 - 4 \times 5 = 21$
- B.  $5 \times 4 - 9 = 7$
- C.  $5 \times 9 - 4 = 4$
- D.  $4 - 5 \times 9 = 11$

23. If AS = 19 and BAT = 40, then how will you code BREAD?

- A. 30
- B. 720
- C. 205
- D. 625



**Gradeup Green Card**

Unlimited Access to All 350+ SSC & Railways Mock Tests

24. Three of the following four number-pairs are alike in a certain way and one is different. Find the odd one out.

- A. 13 – 40
- B. 18 – 55
- C. 9 – 29
- D. 17 – 52

25. Select the set of numbers that is similar to the following set of numbers.

- (20, 42, 72)
- A. (10, 22, 52)
  - B. (16, 40, 70)
  - C. (2, 12, 20)
  - D. (18, 38, 68)

26. If  $\frac{\sin^2 \phi - 3 \sin \phi + 2}{\cos^2 \phi} = 1$ , where  $0^\circ < \phi < 90^\circ$ , then what is the value of  $(\cos 2\phi + \sin 3\phi + \operatorname{cosec} 2\phi)$  ?

- A.  $\frac{3+2\sqrt{3}}{3}$
- B.  $\frac{2+\sqrt{3}}{3}$
- C.  $\frac{3+4\sqrt{3}}{6}$
- D.  $\frac{9+4\sqrt{3}}{6}$

27. A field roller in the shape of a cylinder has a diameter of 1 m and length of  $1\frac{1}{4}$  m. If the speed at which the roller rolls is 14 revolutions per minute, then the maximum area (in m<sup>2</sup>) that it can roll in 1 hour is : (take  $\pi = \frac{22}{7}$ )

- A. 3600
- B. 3560
- C. 3960
- D. 3300

28. The sides of a triangle are 56cm, 90 cm and 106 cm. The circumference of its circumcircle is :

- A.  $108\pi$
- B.  $112\pi$
- C.  $106\pi$
- D.  $109\pi$

29. In  $\Delta ABC$ , the perpendiculars drawn from A, B and C meet the opposite sides at D, E and F, respectively. AD, BE and CF intersect at point P. If  $\angle EPD = 116^\circ$  and the bisectors of  $\angle A$  and  $\angle B$  meet at Q. then the measure of  $\angle AQB$  is :

- A.  $64^\circ$
- B.  $122^\circ$
- C.  $96^\circ$
- D.  $124^\circ$

30. The perimeters of two similar triangles ABC and PQR are 78 cm and 46.8 cm, respectively. If PQ = 11.7, then the length of AB is :

- A. 20 cm
- B. 19.5 cm
- C. 23.4 cm
- D. 24 cm



**Gradeup Green Card**

Unlimited Access to All 350+ SSC & Railways Mock Tests

###ANSWERS###

1. Ans. B.

\* Xylem tissue in plants is responsible for transportation of water. The term Xylem was introduced by Carl Nageli in 1858.

\* It transport water from roots to stems and leaves through interconnecting system of tissues.

\* The mechanism of flow of water through xylem can be described by - Pressure flow hypothesis, Transpirational pull and Root pressure.

2. Ans. D.

• **Article 241 states** "Parliament may by law constitute a High Court for a Union territory or declare any court in any such territory to be a High Court for all or any of the purposes of this Constitution."

• **UTs with High Courts**

1. Bombay High Court: Dadra and Nagar Haveli & Daman and Diu.

2. Calcutta High Court: Andaman and Nicobar Islands.

3. Madras High Court: Puducherry.

4. Jammu and Kashmir High Court: Jammu and Kashmir and Ladakh

3. Ans. A.

• **Snow Leopard is found in Gangotri National Park.** Gangotri National Park is in Uttarakhand.

• Snow leopard, ibex, tahr, bharal, Himalayan snowcock and Himalayan monal are major endangered species found in this National Park.

• Snow Leopard is also spotted in Namdapha national park, Great Himalayan National Park, and Hemis National Park. It is listed as **Vulnerable** on the International Union for Conservation of Nature list.

4. Ans. A.

**Hathi Mere Sathi campaign is launched by Ministry of Environment, Forest and Climate Change.**

• Wildlife trust of India is also partner in this campaign.

• The campaign was launched at the "Elephant- 8" Ministerial meeting held in Delhi in 2011.

• The E-8 countries comprise of India, Botswana, the Republic of Congo,

Indonesia, Kenya, Srilanka, Tanzania, and Thailand.

• The aim of the campaign was to increase public awareness and develop friendships between elephants and the local population.

5. Ans. A.

• **The book 'Bridgital Nation: Solving Technology's People Problem' has been written by N Chandrasekaran and Roopa Purushothanam.**

• The book is published by Penguin India. Chandrasekaran and his co-author, Roopa Purushothaman.

• Bridgital Nation is an attempt by a tech guy and an economist to merge their skills in the search for solutions. N Chandrasekaran is Chairman of the Tata group but before he got the top job, he ran Tata Consultancy Services.

6. Ans. D.

• Within eukaryotic cells, DNA is organized into long structures **called chromosomes.**

• Chromosomes are genetic material of an organism. Most eukaryotic chromosomes include packaging proteins.

• Chromosomes in eukaryotes are composed of chromatin fibre & DNA strands attached to and wrapped around it.

• Chromosomes in humans can be divided into two types:

a) Autosomes or body chromosome

b) Allosome or sex chromosomes.

• Human cells have 23 pairs of chromosomes (22 pairs of autosomes and one pair of sex chromosomes).

7. Ans. A.

• **Adenosine Tri Phosphate or ATP is known as the energy currency of the cell.**

• It is called so as it is the principle molecule for storing and transferring energy in cells.

• It is saved & used by the body when required.

• ATP is converted to ADP when one phosphate group of ATP is removed by breaking a Phospho-anhydride bonds. In



**Gradeup Green Card**

Unlimited Access to All 350+ SSC & Railways Mock Tests



the cell, AMP, ADP, and ATP are constantly inter-converted as they participate in biological reactions.

8. Ans. A.

- Respiration includes breathing as well as the oxidation of food in the cells of the organism to release energy.

- **The energy produced during respiration is stored in the form of ATP molecules** in the cells of the body and used by the organism as when required. When the cell needs energy, then ATP can be broken down using water to release energy.

9. Ans. C.

- **Biosphere is known as the zone of life on earth.**

- Biosphere is global ecological system which supports life and it forms in interaction area of lithosphere, hydrosphere and atmosphere.

- The term "biosphere" was coined by geologist Eduard Suess in 1875.

**Other Options:**

- An **Ecosystem** is a community of living organism with non living components of their environment.

- **Ecology** is the branch of biology that deals with the relation of organism to one another and to their physical surroundings.

- **Biomes** are distinct biological communities that have formed in response to a shared physical climate.

10. Ans. D.

- \* **Sound wave is Longitudinal Waves.**

- \* It's speed is maximum in solid and less in liquid and minimum in air.

- \* It is generated by a source; the sound source creates vibrations in the surrounding medium. Humans can only hear sound waves as distinct pitches when the frequency lies between about 20 Hz and 20 kHz.

11. Ans. A.

The idiom 'cut to the chase' means 'to talk about or deal with the important parts of a subject and not waste time with things that are not important'.

For example: Hi everyone, we all know why we are here today, so let's cut to the chase.

Therefore, option A is the correct answer.

12. Ans. C.

The idiom 'smell a rat' means 'begin to suspect trickery or deception'.

For example: When he died, investigators were called in and soon smelt a rat.

Therefore, option C is the correct answer.

13. Ans. D.

Let's first learn the meanings of the words:

Lament = a passionate expression of grief or sorrow.

Bemoan = express discontent or sorrow over (something).

Appeal = make a serious, urgent, or heartfelt request.

Hence, option D is the correct answer.

14. Ans. A.

"Extensively" means to a large or detailed degree. This option fits the context of the sentence perfectly. The other options mean somewhat opposite of this. Therefore A is the right answer.

15. Ans. A.

This sentence has a positive sense. Options B, A and D have negative connotations. Option A fits this sentence aptly which makes it the right answer.

16. Ans. D.

Stubborn means not responding to treatment or inflexible and therefore it the appropriate word that will come in the place of the blank. Hence, option D is the correct answer.

17. Ans. C.

The sentence is in past tense. Here, the sentence talks about the event that occurred in the past as can be inferred from the former part of the sentence therefore we will use 'did' to stress upon the past event. 'Does' is incorrect here and it is used in present indefinite tense to show the habit or action. Also, the singular noun 'academy award' will take 'any' as the quantifier before it which is provided only in the option c. Hence, option c is the correct answer.

18. Ans. C.

The first sentence is in negative and the presence of 'Even' provides us with a hint that the latter part will be positive. Hence, option c is the correct answer.

19. Ans. C.

Omni present-- found everywhere



**Gradeup Green Card**  
Unlimited Access to All 350+ SSC & Railways Mock Tests

Unusual- unique  
 Rare- unique; less in number  
 Scarce- scanty  
 Hence, option c is the correct choice.  
 20. Ans. C.

The given sentence is in direct form and we have to convert it into indirect form. Since, the reporting verb of the given sentence is in past tense and therefore the reported speech will undergo the following changes upon conversion:

- 'Commas' are replaced with 'that'
- Present tense of the verb gets changed to Past tense of the verb.
- Pronoun 'We' gets changed to 'they.'
- verb 'make' is converted to 'made.'

Out of all the alternatives, only option C adheres to the given rules. Hence, option C is the correct choice.

21. Ans. A.

3, 7, 15, 22, **43**, 63  
 +4 +8 +12 +16 +20  
 +4 +4 +4 +4

There should be 43 in place of 53

Hence, option (A) is the correct answer.

22. Ans. D.

After changing the signs and number in the equation  $4-5 \times 9=4$

$$5 \times 4 - 9 = 11$$

Hence, option (D) is the correct answer.

23. Ans. B.

$$AS = 19$$

$$1 \times 19 = 19$$

$$BAT = 40$$

$$2 \times 1 \times 20 = 40$$

$$BREAD = 720$$

$$2 \times 18 \times 5 \times 1 \times 4 = 720$$

Hence, option (B) is the correct answer.

24. Ans. C.

The pattern is :

$$13 \times 3 + 1 = 40$$

$$18 \times 3 + 1 = 55$$

$$\mathbf{9 \times 3 + 1 = 28 \text{ and not } 29}$$

$$17 \times 3 + 1 = 52$$

Hence, the correct option is C.

25. Ans. A.

$$20 \times 2 = 40, 40 + 2 = 42$$

$$42 - 72 = 30$$

Similarly,

$$10 \times 2 = 20, 20 + 2 = 22$$

$$22 - 52 = 30$$

Hence, option A is the correct response.

26. Ans. D.

$$\frac{\sin^2 \phi - 3 \sin \phi + 2}{\cos^2 \phi} = 1$$

$$\frac{(\sin \phi - 1)(\sin \phi - 2)}{1 - \sin^2 \phi} = 1$$

$$\frac{(\sin \phi - 1)(\sin \phi - 2)}{(\sin \phi - 1)(\sin \phi + 1)} = -1$$

$$\sin \phi - 2 = -\sin \phi - 1$$

$$\sin \phi = \frac{1}{2}$$

$$\phi = 30^\circ$$

A.T.Q.

$$(\cos^2 \phi + \sin^3 \phi + \operatorname{cosec}^2 \phi)$$

$$= (\cos 60 + \sin 90 + \operatorname{cosec} 60)$$

$$= \frac{1}{2} + 1 + \frac{2}{\sqrt{3}}$$

$$= \frac{\sqrt{3} + 2\sqrt{3} + 4}{2\sqrt{3}} = \frac{3\sqrt{3} + 4}{2\sqrt{3}}$$

$$= \frac{18 + 8\sqrt{3}}{12}$$

$$= \frac{9 + 4\sqrt{3}}{6}$$

$$= \frac{6}{6}$$

27. Ans. D.

$$r = \frac{d}{2} = \frac{1}{2}, \text{ length} = \frac{5}{4} = h$$

The number of Revolution in an hour

$$= 14 \times 60 = 840 \text{ revolutions}$$

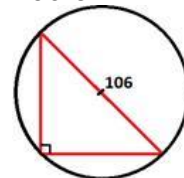
$$\text{Area covered in one revolution} = 2\pi rh$$

$$\text{Total area covered} = 840 \times 2 \times \frac{22}{7} \times \frac{1}{2} \times \frac{5}{4}$$

$$= 3300m^2$$

28. Ans. C.

Sides of a triangle are 56 cm, 90 cm and 106 cm.



$$106^2 = 90^2 + 56^2$$

Hence it will be a right angle triangle.

R = Hypotenuse/2



**Gradeup Green Card**

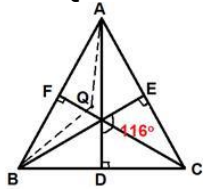
Unlimited Access to All 350+ SSC & Railways Mock Tests

$$R = \frac{106}{2} = 53\text{cm}$$

$$\text{Circumference} = 2\pi R = 2 \times 53\pi = 106\pi$$

29. Ans. B.

A.T.Q.



$$\angle EPD = 116^\circ, \angle D = \angle E = 90^\circ$$

(given)

$$\therefore \angle C = \angle D + \angle E - 116 = 180 - 116 :$$

Q is Incentre -

$$\begin{aligned} \therefore \angle AQB &= 90 + \frac{\angle C}{2} \\ &= 90 + 32 = 122^\circ \end{aligned}$$

30. Ans. B.

A.T.Q.

$$\frac{\text{Side of } \Delta ABC}{\text{Side of } \Delta PQR} = \frac{\text{Perimeter of } \Delta ABC}{\text{Perimeter of } \Delta PQR}$$

$$\frac{AB}{11.7} = \frac{78}{46.8}$$

$$\Rightarrow \frac{AB}{11.7} = \frac{78}{46.8}$$

$$AB = 19.5\text{cm}$$



**Gradeup Green Card**

Unlimited Access to All 350+ SSC & Railways Mock Tests





# Gradeup Green Card

## Features:

- › 350+ Full-Length Mocks
- › 30+SSC & Railways Exams Covered
- › Tests Available in English & Hindi
- › Performance Analysis & All India Rank
- › Previous Year Question Papers in Mock Format
- › Available on Mobile & Desktop



[www.gradeup.co](http://www.gradeup.co)