Lockdown 3.0 Study Plan
Day 4

1. Which of the following states has become the first state to geo-tag community kitchen?
A. Madhya Pradesh
B. Uttar Pradesh
C. Kerala
D. Tamil nadu
Ans. B
Sol.
• **Uttar Pradesh** has become the first state to geo-tag the community kitchen.
• There are around 7368 community kitchens in Uttar Pradesh.

2. Which of the following is caused by a virus named 'Varicella zoster'?
A. Polio
B. Chickenpox
C. Rabies
D. Cholera
Ans. B
Sol.
• Human alphaherpesvirus 3 (HHV-3), usually referred to as the varicella-zoster virus (VZV), is one of nine herpesviruses known to infect humans.
• It causes chickenpox (varicella), a disease most commonly affecting children, teens, and young adults, and shingles (herpes zoster) in adults.

3. Who among the following was NOT a recipient of the Arjuna Awards in 2019?
A. Mezban Patel
B. Poonam Yadav
C. Swapana Burman
D. Ravindra Jadeja
Ans. A
Sol.
• Arjuna Awards were constituted in 1961.
• These awards are given by the Ministry of Youth Affairs and Sports, Government of India. Cash Prize of Rs. 5,00,000 is given to awardee.
• Mezban Patel is recipient of dronacharya award in 2019.All others are recipient of the Arjuna Awards in 2019.

4. In which year did the Third Round Table Conference take place?
A. 1930
B. 1928
C. 1932
D. 1929
Ans. C
Sol.
• Third Round Table Conference was held in London on November 17, 1932.
• This was just a nominal conference, Congress refused to attend it and in Britain, the Labor party also refused to not to attend it.

5. On which lake is the world's only floating post office situated?
A. Dal Lake
B. Chilika Lake
C. Wular Lake
D. Loktak Lake
Ans. A
Sol.
• The floating post office is located in the beautiful city of Srinagar in Kashmir, amidst picturesque snow-clad mountains on a huge houseboat in **Dal Lake**.
• It is not the only floating post office in India, but also in world, which makes it a unique piece of architecture.

6. Where were the Khelo India Youth Games, 2020 held?
A. New Delhi
B. Bhopal
C. Chandigarh
D. Guwahati
Ans. D
Sol.
• The third **Khelo India Youth Games was held** from 10 January **2020** and 22 January **2020** in Guwahati, Assam.
• Maharashtra won its second Khelo India Youth Games (KIYG) trophy in a row by grabbing 78 gold, 77 silver and 101 bronze medals.
• Haryana came second with 200 medals (68 gold, 60 silver, 72 bronze), followed by Delhi at third with 122 medals (39 gold, 36 silver, 47 bronze).

7. Which of the following is one of the Articles of the Constitution of India that mentions the Comptroller and Author General of India?
A. 156
B. 280

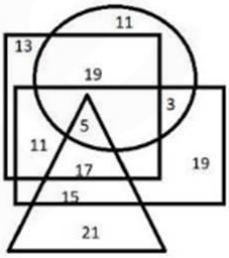
C. 148
D. 352
Ans. C
Sol.
• The CAG is mentioned in the Constitution of India under Article 148 – 151.
• The CAG is ranked 9th and enjoys the same status as a judge of Supreme Court of India in Indian order of precedence.
• The current CAG of India is Rajiv Mehrishi, who assumed office on 25 September 2017

8. What is the atomic mass of Zirconium?
A. 88.22
B. 89.22
C. 90.22
D. 91.22
Ans. D
Sol.
• Zirconium is a chemical element with the symbol Zr and atomic number 40.
• The atomic mass of zirconium is 91.224
• The name zirconium is taken from the name of the mineral zircon, the most important source of zirconium.
• It is a lustrous, grey-white, strong transition metal that closely resembles hafnium and, to a lesser extent, titanium.

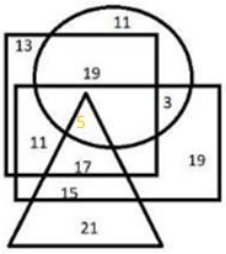
9. Which of the following Articles is related to the Ancillary powers of the Supreme Court?
A. Article 140
B. Article 138
C. Article 143
D. Article 150
Ans. A
Sol.
Under Article 140, Parliament may, by law, confer such supplementary **powers** on the **Supreme Court** as may appear to be necessary to enable it to perform effectively the functions placed upon it under the Constitution but such supplementary **powers** should not be inconsistent with any of the provisions of the Constitution.

10. What is the S.I. unit of angular frequency?
A. rad/s
B. newton
C. radian
D. m/s^2
Ans. A
Sol.
• rad/s – S.I. unit of angular frequency
• newton – S.I. unit of force
• radian – S.I. unit of angular velocity
• m/s^2 – S.I. unit of acceleration

11. The given Venn diagram represents results of a class of students:
The triangle represents students who scored 85% and above in Maths, the circle represents students who scored 85% and above in English. the rectangle represents students who scored 85% and above in Science, and the square represents students who scored 85% and above in Social Sciences. The numbers given in the diagram represent the number of students in that particular category.



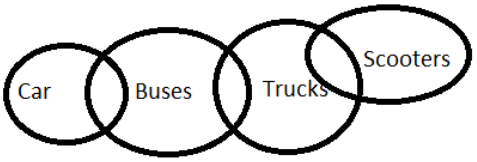
How many students scored 85% and above in all the subjects?
A. 5
B. 15
C. 11
D. 17
Ans. A
Sol.
Triangle represents students who scored 85% and above in Maths
Circle represents students who scored 85% and above in English
rectangle represents students who scored 85% and above in Science
square represents students who scored 85% and above in Social Sciences.



it is clear from the above diagram 5 students scored 85% and above marks in all the subjects.
Hence, option A is the correct answer.

12. Four number-pairs have been given, out of which three are alike in some manner and one is different. Select the number-pair that is different.
A. 4/5 : 3
B. 25/41 : 8
C. 16/20 : 6
D. 30/51 : 9
Ans. B
Sol.
Logic – a/b:c => √(a+b) = c
√(4 +5) = 3
√(16 + 20) = 6
√(30 + 51) = 9
Except for option B all others follow the above pattern.
Hence, option B is the correct answer.

13. Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statements.
Statements:
1) Some cars are buses.
2) Some buses are trucks.
3) Some trucks are scooters
Conclusions:
I. Some cars are scooters.
II. Some trucks are buses.
III. Some scooters are buses
IV. All scooters are trucks.
A. All the conclusions follow.
B. Only conclusions II and IV follow.
C. Only conclusions I and II follow.
D. Only conclusion II follows.
Ans. D
Sol.
The least possible Venn - diagram is:



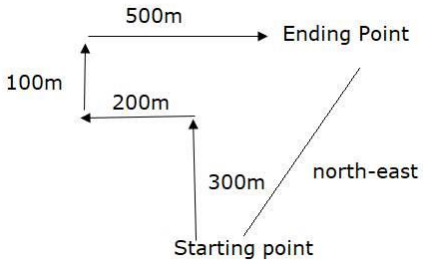
I. Some cars are scooters – It is not a definite case, hence false.
II. Some trucks are buses –It is a definite case, hence true.
III. Some scooters are buses – It is not a definite case, hence false.
IV. All scooters are trucks - It is not a definite case, hence false
Only conclusion II follows.
Hence, option D is the correct answer.

14. In a certain code language, 'PAGE' is coded as '161495'. How will 'PART' be coded as in that language?
A. 16125020
B. 16132420
C. 16128620
D. 16136220
Ans. B
Sol.
The pattern is:
P = 16
A = 1
G = 7 = 7^2 = 49
E = 5
Similarly,
P = 16
A = 1
R = 18 = 18^2 = 324
T = 20
So, PART is coded as 16132420.
Hence, option B is the correct answer.

15. 'Astronomy' is related to 'Stars' in the same way as 'Agronomy' is related to '_____'.
A. Mines
B. Crops
C. Planets
D. Emotions
Ans. B
Sol.
'Astronomy' is the branch of science which deals with celestial objects such as stars and the physical universe. Similarly, 'Agronomy' is the science and technology of producing and using plants in

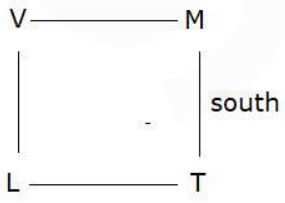
agriculture for crops, fiber, fuel , and land restoration.
Hence, option B is the correct answer.

16. Donald Trump starts from a point and moves 300m North, then turns to West and goes 200m. He turns North and walks 100m and then moves 500m towards East. Now how far is he from the starting point?
A. North-East
B. South-East
C. West
D. East
Ans. A
Sol.
We can draw the following diagram-



Its clear from the above figure that, Now Donald Trump is in north-east with respect to starting point.
Hence, the correct answer is option A.

17. If A x B means A is to the north of B; A + B means A is to the south of B; A % B means A is to the west of B; A - B means A is to the east of B; then in M- V x L % T, T is in which direction with respect to M?
A. West
B. North
C. South
D. East
Ans. C
Sol.
We can draw the following diagram-



Its clear from the above figure that, T is in south direction with respect to M.
Hence, the correct answer is option C.

18. In the sentence, identify the segment which contains the grammatical error.
The death of his hope was as tangible as death of his only son.
A. the death of his
B. hope was as
C. tangible as death
D. of his only son
Ans. C
Sol.
The given sentence is grammatically incorrect and an error lies in option C. Here, 'death' is an abstract noun (i.e. a noun denoting an idea, quality, or state rather than a concrete object). When noun 'death' is used in general sense or general fact, no article is required before it.
Example :- Death has sparse none.
But when it is used for someone specific, we use definite article before it. Thus, it should be 'the death of his only son'.

19. Select the most appropriate option to substitute the underlined segment in the given sentence. If there is no need to substitute it, select No improvement.
He was greatly disappointed to be failed again.
A. No improvement
B. by being failed
C. to failed
D. on failing
Ans. D
Sol.
"Disappointed to" is used with the words hear, see etc. Also after "to" we use base form of the verb. For e.g. I am disappointed to hear about the news.
Let's see other options-
"By being failed" denotes that someone has failed him and no information about any other
person has been given.
Hence option D is the correct answer.

20. Select the most appropriate meaning of the given idiom.
Give a piece of one's mind
A. To advise someone
B. To donate something valuable

C. To rebuke someone strongly
D. To share one's ideas
Ans. C
Sol.
The idiom "give a piece of one's mind" means to rebuke someone strongly.
Hence, option C is the correct answer.

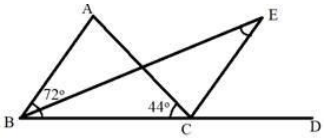
21. Fill in the blank with the most appropriate word.
There is a _____ growth of flowers in tropical countries.
A. pious
B. plenty
C. luxuriant
D. powerful
Ans. C
Sol.
Let's understand the meaning of the given words:
Pious : religious
Plenty : a large amount more than enough (used for quantity)
Luxuriant : growing thickly ,strongly and well (used about plants and hair)
Powerful : strong
Here the sentence is about the growth of flower, thus "luxuriant" is the appropriate choice
Hence, option C is the correct answer.

22. **Direction:** Select the correct indirect narration of the given sentence.
She said, "We visited Uttarakhand in the summer vacation."
A. She said that they had visited Uttarakhand in the summer vacation.
B. She said that we visited Uttarakhand in the summer vacation.
C. She said that they will visit to Uttarakhand in the summer vacation.
D. She said that they have visited Uttarakhand in the summer vacation.
Ans. A
Sol.
Reporting verb and reported speech both are in the past tense, therefore the direct narration will be converted into indirect narration according to the specified rules - "inverted commas" will be removed and conjunction "that" is added to join the reporting verb with the reported speech. "We" will be converted to "they" and "visited" will be converted to "had visited".
Hence option A is the correct answer.

23. **Direction:** Select the most appropriate antonym of the given word.
GROTESQUE
A. Monstrous
B. Attractive
C. Distorted
D. Ugly
Ans. B
Sol.
Let's understand the meaning of the given words:
Grotesque : Strange or ugly in a way that is not natural
Monstrous : having the ugly or frightening appearance
Distorted : changed especially in a way that it looks worse than it was before
Hence option B is the correct answer.

24. Select the most appropriate option to substitute the underlined segment in the given sentence. If there is no need to substitute it, select No improvement.
They <u>stopped to laugh</u> as soon as the teacher entered the classroom.
A. stop laughing
B. stopped laughing
C. No improvement
D. stopped laugh
Ans. B
Sol.
The underlined part must be replaced with option B. There are some words which always take gerund (v + ing) after them and stop is one of those words. So, laughing should be used in place of to laugh.

25. In a triangle ABC, angle ∠B = 72°, and ∠C = 44°, side BC is produced to D. The bisectors of ∠B and ∠ACD meet at E . What is the measure of ∠BEC?
A. 58°
B. 46°
C. 32°
D. 36°
Ans. C
Sol.



∠BAC = 180° - (72 + 44) = 64°
∠BEC = ∠A/2 = 32°.

26. The diagonal of a square A is (a + b) units. What is the area (in square units) of the square drawn on the diagonal of square B whose area is twice the area of A?
A. $4(a + b)^2$
B. $8(a + b)^2$
C. $2(a + b)^2$
D. $(a + b)^2$
Ans. C
Sol. The diagonal of square A is (a + b) units
Diagonal of a square = √2x, where x is the side of square.
Hence,
√2x = a + b
⇒ x = $\frac{a+b}{\sqrt{2}}$
D. 3 hours
Ans. C
Sol. Distance = 300 km
Let usual speed = x km/hr
Time taken = t hours
So, Distance = Speed × time
⇒ 300 = xt
⇒ t = 300/x .....(1)

Now, train takes $2\frac{1}{2}$ hours less for a journey of 300 km, if its speed is increased by 20 km/h from its usual speed.
⇒ 300 = (x + 20)(t - 5/2) .....(2)
From eq. (1):
300 = (x + 20)(300/x - 5/2)
⇒ 600x = (x + 20)(600 - 5x)
⇒ 600x = 600x - $5x^2$ + 12000 - 100x
⇒ $5x^2$ + 100x – 12000 = 0
⇒ x^2 + 20x – 2400 = 0
⇒ x^2 + 60x - 40x – 2400 = 0
⇒ x(x + 60) - 40(x + 60) = 0
⇒ (x - 40)(x + 60) = 0
Either x = 40 or x = -60 (not possible)
Hence x = 40
Usual Speed of the train = 40 km/hr

Side of a square A = $\frac{a+b}{\sqrt{2}}$
Hence, Area of square A = x^2
= $\left(\frac{a+b}{\sqrt{2}}\right).\left(\frac{a+b}{\sqrt{2}}\right) = \frac{(a+b)^2}{2}$
Area of square B is twice the area of square A = $2\times\frac{(a+b)^2}{2} = (a+b)^2$
Side of square B = $\sqrt{(a+b)^2}$ = (a+b)
Diagonal of square B = √2(a+b)
= $(\sqrt{2}(a+b))^2 = 2(a+b)^2$

27. A train takes $2\frac{1}{2}$ hours less for a journey of 300 km, if its speed is increased by 20 km/h from its usual speed. How much time will it take to cover a distance of 192 km at its usual speed?
A. 6 hours
B. 2.4 hours
C. 4.8 hours

Time required to cover 192 km = 192/40 = 4.8 hours

28. Sudha sold an article to Renu for Rs.576 at a loss 20%. Renu spent a sum of Rs.224 on its transportation and sold it to Raghu at a price which would have given Sudha a profit of 24%. The percentage of gain for Renu is:
A. 13.2%
B. 12.9%
C. 11.6%
D. 10.5%
Ans. C
Sol. Sudha sold an article to Renu for Rs.576 at a loss 20%.
Let Cost price for Sudha = 100 unit
Loss % = 20
Selling price = 100 – 20 = 80 unit
According to question,
If 80 unit = Rs.576
Then 1 unit = 7.2
So, 100 unit = Rs. 720
Hence cost price of the article for the Sudha = Rs. 720
Now, Renu spent a sum of Rs.224 on its transportation.

Cost price of the article for Renu = Rs. 576 + Rs. 224 = Rs. 800
Renu sold it to Raghu at a price which would have given Sudha a profit of 24%.
Selling price if Sudha a profit of 24%
= 720 +720 × (24/100) = 720 + 172.80
= Rs. 892.80
Hence, selling price of Renu = Rs. 892.8
Profit = S.P. – C.P. = 892.8 – 800 = Rs. 92.8
Profit percentage = (Profit/C.P.) × 100
= (92.8/800) × 100 = 11.6%

29. If b + c = ax, c+ a = by, a + b = cz, then the value of $\frac{1}{9}\left[\frac{1}{x+1}+\frac{1}{y+1}+\frac{1}{z+1}\right]$ is:
A. 0
B. 1
C. $\frac{1}{9}$
D. $\frac{1}{3}$
Ans. C
Sol.
$\frac{b+c}{a}$ = x, $\frac{a+c}{b}$ = y, $\frac{a+b}{c}$ = z

$$\frac{1}{9}\left[\frac{1}{x+1}+\frac{1}{y+1}+\frac{1}{z+1}\right]$$
$$= \frac{1}{9}\left[\frac{1}{\frac{b+c}{a}+1}+\frac{1}{\frac{a+c}{b}+1}+\frac{1}{\frac{a+b}{c}+1}\right]$$
$$= \frac{1}{9}\left[\frac{a}{a+b+c}+\frac{b}{a+b+c}+\frac{c}{a+b+c}\right]$$
$$= \frac{1}{9}\left[\frac{a+b+c}{a+b+c}\right]$$
= 1/9.

30. What is the smallest integer that is divisible by 3, 7 and 18?
A. 63
B. 252
C. 126
D. 72
Ans. C
Sol.
Required number = LCM [3, 7, 18]
= 126.

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