



21 Day Study Plan

Day -14



Prep Smart. Score Better. Go gradeup

www.gradeup.co

1. What is the pH value of orange juice?
A. 1.3 to 2.19 B. 4.3 to 5.19
C. 2.3 to 3.19 D. 3.3 to 4.19

Ans. D

Sol. **Orange juice** ranges in **pH from 3.3 to 4.19**. It has 122 calories, 139 percent of the DV for vitamin C, 12 percent of the DV for folate and 13 percent of the DV for potassium per cup. Its effect on tooth enamel, however, isn't clear.

2. _____ veto is when, The President withhold his assent to any bill.

- A. Absolute Veto B. Pocket Veto
C. Suspensive Veto D. Qualified Veto

Ans. A

Sol.

- **Absolute Veto** refers to the power of the President to withhold his approval to any bill passed by the Parliament.

- **Pocket Veto** is the power where the President neither ratifies nor rejects nor returns the bill, but simply keeps the bill pending for an indefinite period.

- **Suspensive Veto** is a power of the President when the President returns a bill for reconsideration of the Parliament.

3. A Buddhist council during the reign of Ashoka was held at _____

- A. Pataliputra B. Rajgriha
C. Magadha D. Samastipur

Ans. A

Sol.

The Third Buddhist council was held at Asokarama in **Pataliputra**.

- It was held under the patronage of Emperor **Ashoka**.

- It was presided over by the elder monk **Moggaliputta-Tissa** and one thousand monks participated in the Council.

- The council is recognized and known to both the Theravada and Mahayana schools, though its importance is central only to the Theravada.

4. Who fought the Battle of Khanwa in 1527 ?

- A. Babur and Rana Sanga
B. Ibrahim Lodi and Rana Sanga
C. Humayun and Sher Shah
D. Humayun and Nusrat Shah

Ans. A

Sol.

The Battle of Khanwa was fought near the village of **Khanwa, in Bharatpur District of Rajasthan** in 1527.

- It was fought between the invading forces of the first **Mughal Emperor Babur** and the Rajput forces led by **Rana Sanga of Mewar**.

- In this battle Babur defeated Rana Sanga.

- The battle of Khanwa was a decisive battle which established Mughal rule in India.

- Babur assumed the title "**Ghazi**" after this battle.

- Rana Sanga was the last Hindu king, who tried to establish Hindu Rule in India and all castes of Rajputs made a Rajput confederacy under him.

5. Who took the title of "Alamgir" in Mughal India?

- A. Shahjahan B. Jahangir
C. Akbar D. Aurangzeb

Ans. D

Sol.

Aurangzeb was called a 'Zinda Pir' or the 'living saint'. He also took the title of 'Alamgir' in 1659.

- He was the third son of Shahjahan.

- He made the victory of Deccan in 1636.

- Under him, the Mughal empire reached its greatest extent and the largest single state ever known in India.

- He built 'Bibi ka Maqbara', similar to Taj Mahal in Aurangabad.

6. During the emergency period, the Lok Sabha can extend tenure by a period of _____ at a time.

- A. 3 Months B. 6 Months
C. 15 Days D. 1 Year

Ans. D

Sol.

- **Lok Sabha** can be extended during the National Emergency by a law of Parliament for one year at a time for any length of time.

- But this extension cannot go **beyond period of 6 months** after the emergency has ceased to operate.



Gradeup Green Card

Unlimited Access to All 350+ SSC & Railways Mock Tests

• The President of India is authorised to dissolve Lok Sabha at any time even before the completion of 5 years and this cannot be challenged in the **Court of Law**.

7. Who represented Anglo-Indian community in Constituent Assembly?

- A. Lord Mountbatten B. Annie Besant
C. Frank Anthony D. Mahatma Gandhi
Ans. C

Sol.

• **Frank Anthony** represented Anglo-Indian community in assembly (1946-1950).

• He was a prominent leader of the Anglo-Indian community in India.

• He was only not nominated for the 6th and 9th elected Parliament of India.

• In the Constituent Assembly he was a part of **Advisory Committee** and **Sub Committee on Minorities**.

8. What are the chemical components of acid rain?

- A. Carbon dioxide and nitrogen oxides
B. Sulfur dioxide and nitrogen oxides
C. Carbon dioxide and nitrogen
D. Sulfur dioxide and nitric acid
Ans. B

Sol.

Sulfur dioxide and nitrogen oxides are the chemical components of acid rain. Acid rain is caused by a chemical reaction that begins when compounds like **sulfur dioxide** and **nitrogen oxides** are released into the air. These **substances** can rise very high into the atmosphere, where they mix and react with **water, oxygen**, and other chemicals to form more acidic **pollutants**, known as acid rain.

9. What foods contain sulfur dioxide?

- i. dried fruits
ii. fruit yoghurts
iii. bottled lemon juice
iv. fruit juices
A. i,ii&iii B. ii,iii&iv
C. both ii&iii D. i,ii,iii&iv
Ans. D

Sol.

Dried fruits, fruit yoghurts, bottled lemon juice, fruit juices these all foods contain sulfur dioxide. Foods and

drinks that commonly contain **sulphites** include wine, cider, beer, soft drinks, frozen seafood such as prawns and shrimp, sausages and jams. It is sometimes **used** as a **preservative** for dried apricots and other dried fruits owing to its **antimicrobial properties**, (it is sometimes called E220 when **used** in this way.) As a preservative, it maintains the appearance of the fruit and prevents rotting.

10. By virtue of which property, a body opposes change in its state of rest or motion?

- A. Friction B. Impulse
C. Momentum D. Inertia
Ans. D

Sol.

Inertia is the property of a body by virtue of which the body **opposes** change in its initial state of **rest** or **motion** with uniform speed on a straight line.

Some examples of inertia are -

1. When a car or train starts suddenly, the passengers bend backward.
2. When a coat or blanket is beaten by a stick, the dust particles are removed.

11. Which law signifies that 'A Good Absorber is a Good Emitter'?

- A. Faraday's law
B. Newton law of cooling
C. Stefan's law
D. Kirchhoff's law
Ans. D

Sol.

• **Kirchhoff's law** signifies that '**A Good Absorber is a Good Emitter**'.

• According to Kirchhoff's law, the ratio of **emissive power** to **absorptive power** is same for all surfaces at the same temperature and is equal to emissive power of black body at that temperature.

12. What is the reason for formation of Mirage in desert?

- A. Refraction of light
B. Reflection of light
C. Total internal reflection of light
D. Both Refraction and Total internal reflection of light
Ans. D

Sol.



Gradeup Green Card

Unlimited Access to All 350+ SSC & Railways Mock Tests

- Mirage occurs due to **total internal reflection of light**. When the sun is high in the sky, the sand gets heated first and then the layers of air above it. The rays from the trees travel from an optically denser air layer to a rarer layer and hence bend away from the normal.
- This bending continues and a stage is reached where the angle of incidence becomes greater than the critical angle and total internal reflection takes place.
- The totally reflected rays that reach the eyes appear to come from a point on the ground where the image of the tree is formed. Thus one sees an inverted image of the tree though there is no water around.

13. Which of the following statement is true for the particle executing simple harmonic motion passes through the mean position?

- A. Potential energy of particle is maximum
- B. Velocity of particle is zero
- C. Kinetic energy of particle is zero
- D. Acceleration of particle is zero

Ans. D

Sol. When a particle executing **simple harmonic motion** passes through the **mean position**, then -

- 1) Acceleration of particle is zero
- 2) No force acts on the particle
- 3) Velocity is maximum
- 4) Kinetic energy is maximum
- 5) Potential energy is zero

14. The sigmoid colon is a part of

- A. Small Intestine
- B. Large Intestine
- C. Pharynx
- D. Rectum

Ans. B

Sol. The sigmoid colon (pelvic colon) is the part of the large intestine that is closest to the rectum and anus.

15. What is the full form of Elisa Test?

- A. Enzyme Linked immuno sorbent assay
- B. Enzyme living immune sorbent assay
- C. Enzyme life immune sorbent assay
- D. None of the above

Ans. A

Sol. • Elisa Test is to diagnose A.I.D.S.

- Western blot test is to confirm A. I.D.S

- On 1st Dec AIDS Day is celebrated
- ELISA tests can be of four types:
 - ⇒ Direct ELISA
 - ⇒ Indirect ELISA
 - ⇒ Sandwich ELISA
 - ⇒ Competitive ELISA

16. What is the mitochondria made of?

- A. Phospholipids
- B. DNA
- C. Catalyst
- D. Albumin

Ans. A

Sol.

- A mitochondrion contains two membranes. These are made of **phospholipid double layers and proteins**.

- The inner mitochondrial membrane is compartmentalized into numerous cristae.

17. In the following question, which one set of letters when sequentially placed at the gaps in the given letter series shall complete it?

ab_qab_qa_mq_bmq

- A. mbma
- B. mmba
- C. bamm
- D. bmma

Ans. B

Sol.

In this question, we show that-

Given series: ab_qab_qa_mq_bmq

Inserting letters of option B we get, abmq/ abmq /abmq/ abmq

So the correct answer is option B.

18. Arrange the given words in the sequence in a meaningful order.

- 1) Air Commodore
- 2) Air Marshal
- 3) Air Chief Marshal
- 4) Group Captain
- 5) Air Vice-Marshal

- A. 4, 2, 1, 3, 5
- B. 4, 1, 5, 2, 3
- C. 3, 2, 1, 5, 4
- D. 3, 5, 4, 2, 1

Ans. B

Sol.

In this question, we show that -This is the hierarchy of Indian Air Force in ascending order;

- 4) Group Captain < 1) Air Commodore < 5) Air Vice-Marshal < 2) Air Marshal < 3) Air Chief Marshal

So the correct sequence is 4, 1, 5, 2, 3.



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

So correct answer is option B.

19. 'Error' is related to 'Blunder' in the same way as 'Crime' is related to '_____':

- A. Disaster
- B. Thief
- C. War
- D. Sin

Ans. D

Sol.

The relationship is- word: intensity. Extreme error is called Blunder and Extreme crime is called Sin. Hence, the correct answer is option D.

20. If DOG is coded as 420 and COW is coded as 1035, then how will CAT be coded as?

- A. 180
- B. 160
- C. 80
- D. 60

Ans. D

Sol.

As,
DOG = D*O*G = 4*15*7 = 420

And

COW = C*O*W = 3*15*23 = 1035

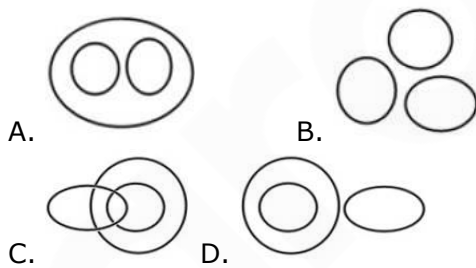
Similarly,

CAT = C*A*T = 3*1*20 = 60

Hence, the correct answer is option D.

21. Select the Venn diagram that best illustrates the relationship between the following classes.

Mean, Median, Mode

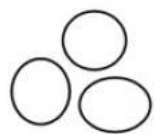


Ans. B

Sol.

Mean, Median and Mode are three different terms used in statistics(Mathematics).

So, the best representation is-



Hence, the correct answer is option B.

22. Select the option which has same relationship as the number set given below.

- (13, 52, 64)
- A. (11, 77, 343)
 - B. (24, 49, 243)
 - C. (20, 25, 196)
 - D. (18, 20, 96)

Ans. A

Sol.

As, $(52/13)^3 = 64$

Similarly, $(77/11)^3 = 343$

Hence, the correct answer is option A.

23. Select the missing number from the given options?

11	15	14
9	20	7
202	625	?

- A. 500
- B. 456
- C. 245
- D. 958

Ans. C

Sol.

Column 1:

$$11^2 + 9^2 = 121 + 81 = 202$$

Column 2:

$$15^2 + 20^2 = 225 + 400 = 625$$

Column 3:

$$14^2 + 7^2 = 196 + 49 = 245$$

So, Missing Number is 245

Hence, the correct answer is option C.

24. The value of $\tan^2 48^\circ - \operatorname{cosec}^2 42^\circ + \operatorname{cosec}(67^\circ + \theta) - \sec(23^\circ - \theta)$ is :

- A. -2
- B. -1
- C. 0
- D. 1

Ans. B

Sol.

$$\tan^2 48^\circ - \operatorname{cosec}^2 42^\circ + \operatorname{cosec}(67^\circ + \theta) - \sec(23^\circ - \theta)$$

$$\tan^2 48^\circ - (1 + \cot^2 42^\circ) + \operatorname{cosec}(67^\circ + \theta) - \sec(23^\circ - \theta)$$

$$\tan^2(90 - 48) - 1 - \cot^2 42^\circ + \operatorname{cosec}(90^\circ - 67^\circ - \theta) - \sec(23^\circ - \theta)$$

$$\cot^2 42^\circ - 1 - \cot^2 42^\circ + \sec(23^\circ - \theta) - \sec(23^\circ - \theta)$$

$$= -1$$

25. Study the pie-chart and answer the question.



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

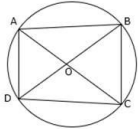
= 10. If AC bisects BD, then what is the measure of AD?

- A. 13.5 cm B. 15 cm
C. 20 cm D. 18 cm

Ans. D

Sol.

AB = 15 cm, BC = 12 cm and CD = 10cm
ABCD is a cyclic quadrilateral.
Now diagonal AC bisects BD.



Here DO = OB and

$\Delta AOB \sim \Delta COD$

$$\frac{AB}{DC} = \frac{AO}{CO}$$

So, $\frac{AB}{DC} = \frac{AO}{CO}$ (1)

$\Delta AOD \sim \Delta COB$

$$\frac{AD}{BC} = \frac{AO}{CO}$$

So, $\frac{AD}{BC} = \frac{AO}{CO}$ (2)

From (1) and (2)

$\therefore AB \times BC = AD \times DC$

$$15 \times 12 = AD \times 10$$

$$\text{Hence } AD = \frac{15 \times 12}{10} = 18 \text{ cm}$$

30. If $\left(x^3 + \frac{1}{x^2} - k\right)^2 + \left(x + \frac{1}{x} - p\right)^2 = 0$, where

k and p are real numbers and $x \neq 0$,

then $\frac{k}{p}$ is equal to:

- A. $p^2 - 1$ B. $p^2 - 3$
C. $p^2 + 3$ D. $p^2 + 1$

Ans. B

Sol.

Here

$$\left(x^3 + \frac{1}{x^2} - k\right)^2 + \left(x + \frac{1}{x} - p\right)^2 = 0$$

Squares of sum is zero if individually the quantity is zero.

$$\text{Then } \left(x^3 + \frac{1}{x^2} - k\right) = 0 \text{ and } \left(x + \frac{1}{x} - p\right) = 0$$

$$\text{Then } \left(x^3 + \frac{1}{x^2}\right) = k \text{ and } \left(x + \frac{1}{x}\right) = p$$

$$\text{From } \left(x + \frac{1}{x}\right) = p$$

$$\text{We have } x^3 + \frac{1}{x^3} = p^3 - 3p$$

$$\text{So; } k = p^3 - 3p = p(p^2 - 3)$$

$$\text{Hence } \frac{k}{p} = p^2 - 3$$

31. If α, β and γ are distinct roots of the equation $ax^2 + bx + c = 0$ then

- A. $a = c = 0, b \in \mathbb{R}$
B. $a = b = 0, c \in \mathbb{R}$

C. $a = b = c = 0$

D. $b^2 - 4ac \geq 0$

Ans. C

Sol.

Since quadratic equation $ax^2 + bx + c = 0$ has three distinct roots so it must be an identity.

So $a = b = c = 0$.

32. Find a word that is the synonym of - Decimated

- A. Captured B. Destroyed
C. Damaged D. Worried

Ans. B

Sol. Option "B" is the correct answer.

Decimated: Kill in large numbers.

Captured: succeed in representing or expressing something intangible.

Destroyed: Ruined.

Damaged: Harmed, injured or spoiled.

Worried: Afflicted with or marked by anxious uneasiness or trouble or grief.

33. Find a word that is the synonym of - Impeccable

- A. Inoffensive B. Harmless
C. Important D. Faultless

Ans. D

Sol. Option "D" is the correct answer.

Impeccable: Without fault or error.

Inoffensive: Not causing anger or annoyance.

Harmless: Not causing or capable of causing harm.

Important: Of great significance.

Faultless: Without fault of error.

34. **Directions:** In each of the following questions, choose the word opposite in meaning to the given word.

Irascible

- A. Cranky B. Choleric
C. Amiable D. Waspish

Ans. C

Sol. Option "C" is the correct answer.

Irascible : Quickly aroused to anger.

Cranky: Easily irritated or annoyed.

Choleric: Easily moved to anger.

Amiable: Disposed to please.



Gradeup Green Card

Unlimited Access to All 350+ SSC & Railways Mock Tests

Waspish: Very irritable.

35. Rugged

- A. Hard
- B. Sturdy
- C. Smooth
- D. Rough

Ans. C

Sol. Option "C" is the correct answer.

Rugged: Sturdy and strong in constitution.

Hard: Not easy; requiring great physical strength.

Sturdy: Having physical strength.

Smooth: A surface free from roughness.

Rough: Having or caused by an irregular surface.

36. Select the most appropriate meaning of the given idiom.

Set people by ears

- A. to incite people
- B. to listen carefully
- C. to give long speech
- D. to abuse

Ans. A

Sol.

This expression refers to people to engage in a squabble, dispute or altercation. Hence option "A" is the correct answer.

37. **Select the most appropriate meaning of the given idiom.**

Spartan life

- A. living life full
- B. life of ascetic
- C. live life under someone
- D. very painful life

Ans. B

Sol.

A spartan existence is a kind of like being a monk. They live the life of self-denial. They did not get sick. Hence, option B is the correct answer.

38. Identify the segment in the sentence, which contains the grammatical error.

Modern youth pay attention to playing online games than playing outdoor games.

- A. modern youth pay
- B. attention to playing
- C. online games than playing
- D. outdoor games.

Ans. C

Sol.

Option C has the grammatical incorrect part. Replace than by rather than. Here it is not a comparison. Rather than = instead of. Used specially when you prefer one thing to another.

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

The _____ of more players could again _____ the way for higher tariffs and monopolies.

- A. concrete; exit
- B. exit; pave
- C. veneer; quit
- D. outlet; output

Ans. B

Sol. Let us understand the meaning of the given words:

Exit- An act of leaving a place.

Pave the way- A phrase which means to make progress or development easier.

Veneer- cover or disguise (someone or something's true nature) with an attractive appearance.

Outlet- a point from which goods are sold or distributed.

Concrete- capable of being perceived by the senses; not abstract or imaginary

So, Option B. is the correct choice. Out of the given options only "Exit and pave" is the best choice.

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

He is a philanthropist as he sends a cheque of thousand dollars every month to an orphanage without a miss.

- A. thousands for dollars
- B. a thousand of dollars
- C. a thousand dollars
- D. No improvement

Ans. C

Sol.

Thousand is not a number, it's a noun.

One thousand is a number. Use 'a thousand' or 'one thousand' in place of 'thousand'.

Hence, option C is the correct answer.



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