

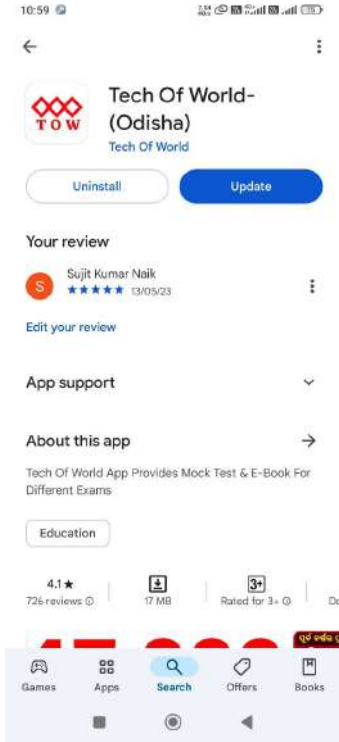


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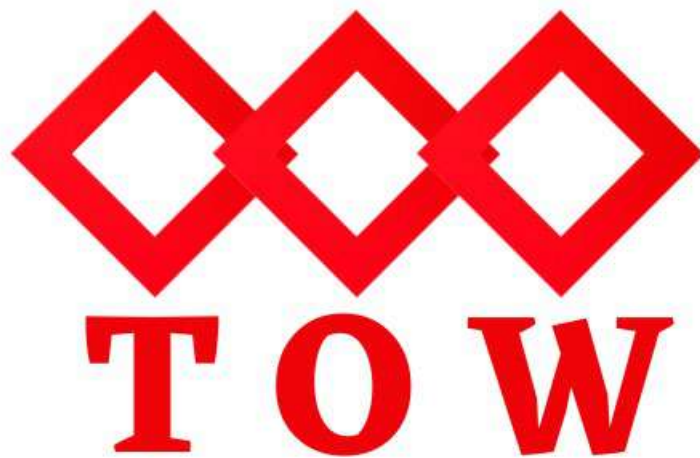
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RI PRE FULL TEST- 1

DETAIL SOLUTION By “Tech Of World App”



Q-1 Which of the following cities served as the capital of the Pandya kingdom?

- (A) Thanjavur
- (B) Kanchipuram
- (C) Cholaipattinam
- (D) Madurai

ANS- D

Explanation:

→ **Madurai**, located in **Tamil Nadu**, served as the capital of the **Pandya kingdom**. Known as the "Athens of the East," it was a center for **Tamil culture, literature, and trade** during ancient and medieval times.

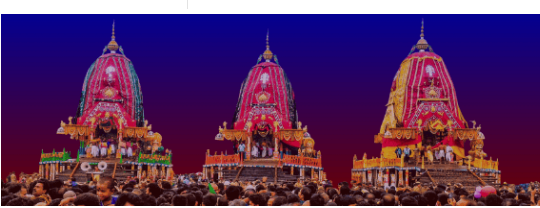
→ The **Meenakshi Temple**, dedicated to Goddess Meenakshi and Lord Sundareswarar, is a notable symbol of its rich heritage.

Other Options:

- ▶ **A) Thanjavur:** The capital of the **Chola dynasty**, famous for the **Brihadeeswarar Temple**.
- ▶ **B) Kanchipuram:** Known as the **city of temples**, it was a center of learning and capital of the **Pallava dynasty**.
- ▶ **C) Cholaipattinam:** Also known as **Poompuhar**, it was a major port city during the Chola period.

Q-2 During the rule of which Post Mauryan dynasty was Charakasamhita composed?

- (A) Kushans
- (B) Indo-Greeks
- (C) Parthians
- (D) Shungas



ANS- A

Explanation:

→ The **Charakasamhita**, a foundational text of **Ayurveda**, was compiled during the **Kushan period** (circa 1st–2nd century CE). The Kushan Empire, under rulers like **Kanishka**, promoted advancements in science, medicine, and culture.

→ **Charaka**, the author of this text, is considered one of the pioneers of **Indian medicine**, and his work laid the groundwork for modern **Ayurvedic practices**.

Other Options:

- ▶ **B) Indo-Greeks:** Known for their contributions to **coinage** and **Hellenistic influences**, not linked with medical texts.
- ▶ **C) Parthians:** Rulers of **Iranian origin** who controlled parts of northwest India, mainly remembered for trade.
- ▶ **D) Shungas:** A dynasty that promoted **Brahmanism** and opposed Hellenistic influences.

3- The Kalibangan site of the Indus Valley Civilization is situated on the banks of which river?

-ସିନ୍ଧୁ ଉପତ୍ୟକା ସଭ୍ୟତାର କାଲିବଙ୍ଗନ ସ୍ଥଳ କେଉଁ ନଦୀ କୂଳରେ ଅବସ୍ଥିତ ?

- A) Brahmaputra River
- B) Narmada River
- C) Ghaggar-Hakra River
- D) Tapti River



Ans- C

Explanation:

→ The **Kalibangan site** of the **Indus Valley Civilization** is located on the banks of the **Ghaggar-Hakra River** in **Rajasthan**. It is known for its early use of **plowed fields** and **fire altars**.

Other Options:

→ **(A) Brahmaputra River** – Flows through **Northeast India**, not linked to **Indus Valley sites**.

→ **(B) Narmada River** – Known for ancient sites but not **Harappan**.

→ **(D) Tapti River** – Flows through **Central India**, unrelated to **Kalibangan**.

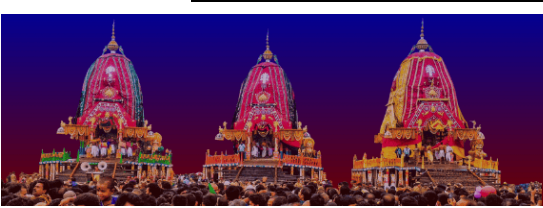
Q-4 Who among the following Governor-Generals followed the policy of non-interference into the affairs of Indian states?

- (A) Lord Lytton
- (B) Lord William Bentinck
- (C) Lord Dalhousie
- (D) Lord Dufferin

ANS- B

Explanation:

→ **Lord William Bentinck** (Governor-General from **1828–1835**) followed a policy of **non-interference** in the internal affairs of Indian princely states. He focused on administrative and social reforms, including the abolition of **Sati** in **1829** and promoting **Western education**.



Other Options:

- ▶ **A) Lord Lytton:** Known for organizing the **Delhi Durbar of 1877** and the **Vernacular Press Act**.
- ▶ **C) Lord Dalhousie:** Known for the **Doctrine of Lapse** and railway development.
- ▶ **D) Lord Dufferin:** Served as Viceroy during the establishment of the **Indian National Congress in 1885**.

Q-5 Who among the following organised the Khandayats under his banner to rise against the British in August 1857?

- (A) Chakra Bisoi
- (B) Dora Bisoyi
- (C) Ramakrushna Samanta Singhar
- (D) Ratan Naik

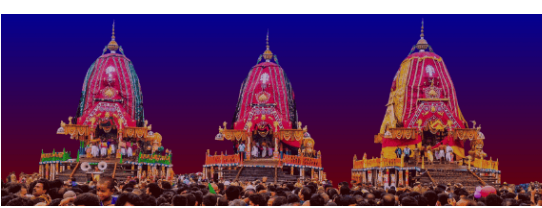
ANS- C

Explanation:

- **Ramakrushna Samanta Singhar**, a prominent leader from Odisha, organized the **Khandayats** to rise against the British during the **1857 Revolt**. His efforts were aimed at resisting British policies and asserting local control.
- The Khandayats, known for their valor and traditional warrior culture, played a significant role in regional uprisings.

Other Options:

- ▶ **A) Chakra Bisoi:** A leader of the **Paika Rebellion** of 1817 in Odisha.
- ▶ **B) Dora Bisoyi:** Associated with tribal uprisings in Odisha.
- ▶ **D) Ratan Naik:** Another tribal leader known for resistance against British policies.



Q-6 Which scheme of ₹1 lakh crore has the Union Cabinet recently approved to create over 3.5 crore new jobs?

- (A) Pradhan Mantri Employment Generation Programme (PMEGP)
- (B) National Apprenticeship Promotion Scheme (NAPS)
- (C) Employment-Linked Incentive (ELI) Scheme
- (D) Deendayal Antyodaya Yojana-National Urban Livelihoods Mission (DAY-NULM)

ANS- C

Q-7 Under which operation did Israel recently attack Iranian nuclear sites?

- (A) Operation Opera
- (B) Operation Iron Swords
- (C) Operation Rising Lion
- (D) Operation Desert Shield

ANS- C

Q-8 Where was India’s first underwater museum and artificial coral reef project recently launched?

- (A) INS Viraat (Goa)
- (B) INS Guldar (Maharashtra)
- (C) INS Vikrant (Visakhapatnam)
- (D) INS Khukri (Diu)

ANS- B

Q-9 In response to ‘Operation Sindoor’, under what name did Pakistan launch a campaign against India?

- (A) Operation Tabahi
- (B) Operation Shamsheer



- (C) Operation Bunyan-ul-Marsous
(D) Operation Sarhad

ANS- C

Q-10 What is India’s rank in the Human Development Report 2025?

- (A) 122nd
(B) 130th
(C) 144th
(D) 126th

ANS- B

Q-11 NDP = _____.

- (A) GDP + Net factor income from abroad
(B) GDP + Depreciation
(C) GDP – Net factor income from abroad
(D) GDP – Depreciation

ANS- D

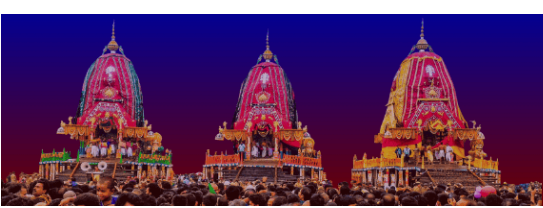
Explanation:

→ **Net Domestic Product (NDP)** is obtained by subtracting **depreciation (capital consumption)** from **Gross Domestic Product (GDP)**.

Key Points:

- ◆ *Formula:* $NDP = GDP - Depreciation$
- ◆ *Depreciation:* Loss of value of capital assets due to use and time
- ◆ *Use:* Indicator of **sustainable income** of a nation
- ◆ *Comparison:* GDP shows gross value, NDP shows **net value**

Other Options:



- (A) **GDP + Net factor income from abroad** — Defines **GNP**.
(B) **GDP + Depreciation** — No such measure.
(C) **GDP – Net factor income from abroad** — Defines **NNP**.

Q-12 When did a States Reorganisation Commission was set up, which recommended the creation of linguistic States on the basis of larger linguistic groups?

- (A) December 1953
(B) December 1956
(C) December 1963
(D) December 1958

ANS- A

Explanation:

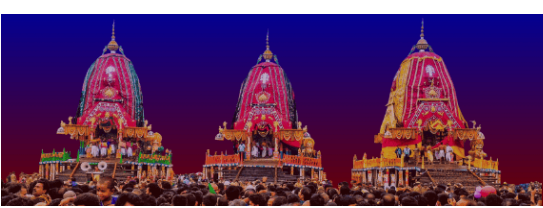
→ The **States Reorganisation Commission (SRC)** was set up in **December 1953** under **Fazl Ali Commission**, which recommended the reorganization of Indian states based on **linguistic groups**.

Key Points:

- ◆ *Chairman:* **Fazl Ali**, with members **K.M. Panikkar** and **H.N. Kunzru**
- ◆ *Report submitted:* **1955**, recommending creation of **14 states and 6 UTs**
- ◆ *Outcome:* Led to the **States Reorganisation Act, 1956**
- ◆ *Significance:* Laid foundation for **linguistic reorganization** of states in India

Other Options:

(B) December 1956 — States Reorganisation Act came into effect (1 Nov 1956).



Q-13 Ishwari Prasad is credited to have introduced the _____ Gharana of Kathak.

- (A) Raigarh
- (B) Lucknow
- (C) Banaras
- (D) Jaipur

ANS- B

Explanation:

→ **Ishwari Prasad** is credited with introducing the **Lucknow Gharana of Kathak**, which flourished under the patronage of the **Nawabs of Awadh** in the 18th century.

Key Points:

- ◆ *Founder*: Ishwari Prasad (16th century)
- ◆ *Specialty*: Emphasis on **grace, abhinaya (expressions), and storytelling**
- ◆ *Patronage*: Supported by **Nawab Wajid Ali Shah of Awadh**
- ◆ *Legacy*: Descendants like **Bindadin Maharaj and Birju Maharaj** carried forward the tradition

Other Options:

(A) Raigarh — Known for experiments with Kathak in the princely state of Raigarh (20th century).

(C) Banaras — Famous for **vigorous footwork** and temple tradition.

(D) Jaipur — Known for **tandava style, powerful footwork, and spins**.

Q-14 The upper portion of the Earth is known as:



- (A) Troposphere
- (B) Stratosphere
- (C) Mesosphere
- (D) Lithosphere

ANS- D

Explanation:

→ The **Lithosphere** is the outermost solid portion of the Earth, including the **crust and uppermost mantle**, extending up to about **100 km**.

Key Points:

- ◆ *Divisions*: Includes **continental crust** and **oceanic crust**
- ◆ *Plates*: Divided into **tectonic plates** that cause earthquakes and volcanoes
- ◆ *Thickness*: About **50–100 km** on average
- ◆ *Composition*: Made up of **rocks, minerals, and soil**

Other Options:

(A) Troposphere — The lowest atmospheric layer, extending up to **12 km**; where weather occurs.

(B) Stratosphere — Layer above troposphere, extending from **12–50 km**; contains the **ozone layer**.

(C) Mesosphere — Atmospheric layer from **50–85 km**; where meteors burn up.

Q-15 What is the unit of specific resistance?

- (A) Ohm meter
- (B) Coulomb



- (C) Ampere
- (D) Farad

ANS- A

Explanation:

→ **Specific resistance (Resistivity)** is measured in **Ohm meter ($\Omega \cdot m$)**, representing resistance offered by a unit cube of material.

Key Points:

- ◆ *Formula:* $\rho = R \cdot A / L$
- ◆ *SI Unit:* **$\Omega \cdot m$**
- ◆ *Depends on:* Material's nature, temperature
- ◆ *Application:* Used in designing **wires and conductors**

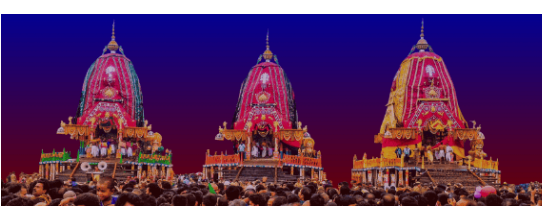
Other Options:

- (B) Coulomb** — Unit of electric charge.
- (C) Ampere** — Unit of electric current.
- (D) Farad** — Unit of capacitance.

16. Which river does not fall under Hexadeltaic Region of Odisha ?

- (A) Brahmani
- (8) Baitarani
- (C) Mahanadi
- (D) Malaguni

Ans- D



Explanation:

→ The **Malaguni River** is not part of the **Hexadeltaic Region** of Odisha. This region, also known as the **Mahanadi Delta**, is formed by six major rivers: **Mahanadi**, **Brahmani**, **Baitarani**, **Subarnarekha**, **Budhabalanga**, and **Rushikulya**.

Other Options:

→ (A) **Brahmani** – A major river contributing to the **Hexadeltaic Region**.

→ (B) **Baitarani** – An important river in the deltaic region.

→ (C) **Mahanadi** – The largest river forming the **Hexadeltaic Region**.

17- Hangul, the only species of red deer to be found in India is conserved in which of the following national parks?

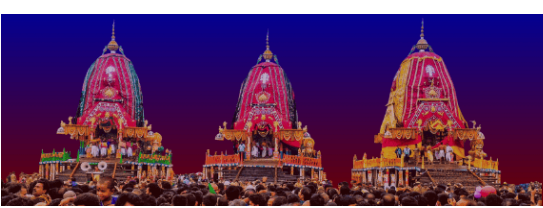
- ଭାରତରେ ମିଳୁଥିବା ଏକମାତ୍ର ପ୍ରଜାତିର ଲାଲ ହରିଣ ହାଙ୍ଗୁଲ ନିମ୍ନଲିଖିତ କେଉଁ ଜାତୀୟ ଉଦ୍ୟାନରେ ସଂରକ୍ଷିତ ଅଛି ?

- A) Manas National Park
- B) Namdapha National Park
- C) Dachigam National Park
- D) Kaziranga National Park

Ans- C

Explanation:

→ **Dachigam National Park**, located in **Jammu and Kashmir**, is home to the **Hangul**, the only species of **red deer** found in India, and is also



known for its rich biodiversity.

Other Options:

- **A) Manas National Park:** Located in **Assam**, known for its **tigers** and **elephants**, and a UNESCO World Heritage Site.
- **B) Namdapha National Park:** Located in **Arunachal Pradesh**, famous for its **biodiversity** and **snow leopards**.
- **D) Kaziranga National Park:** Also located in **Assam**, renowned for the **Indian one-horned rhinoceros**.

18- Which one of the following types of soil is also known as 'Usara soil'?

- ନିମ୍ନଲିଖିତ ମଧ୍ୟରୁ କେଉଁ ପ୍ରକାରର ମାଟିକୁ 'ଉସାର ମାଟି' ମଧ୍ୟ କୁହାଯାଏ?

- (A) Saline Soil
- (B) Red Soil
- (C) Alluvial soil
- (D) Black Soil

Ans- A

Explanation:

→ **Saline soil**, also known as **Usara soil**, contains a high concentration of salts, making it unsuitable for most crops. It is commonly found in regions with poor drainage, such as **Punjab**, **Uttar Pradesh**, and parts of **Rajasthan**.

Other Options:

→ **Red Soil:** Found in regions like **Odisha** and **Tamil Nadu**, not



saline.

→ **Alluvial Soil**: Found in the river plains, highly fertile and not saline.

→ **Black Soil**: Found in the **Deccan Plateau**, used for cotton farming.

19- Who is the ex-officio Chairman of the Rajya Sabha in Indian Parliament?

- ଭାରତୀୟ ସଂସଦରେ ରାଜ୍ୟସଭାର କାର୍ଯ୍ୟନିର୍ବାହୀ ଅଧ୍ୟକ୍ଷ କିଏ ?

- (A) Union Minister of Parliamentary Affairs
- (B) The President of India
- (C) The Prime Minister of India
- (D) The Vice-President of India

Ans- D

Explanation:

→ The **Vice President of India** is the **ex-officio Chairman** of the **Rajya Sabha** (Council of States) in the **Indian Parliament**.

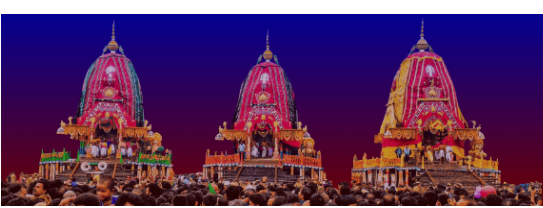
The **Vice President** presides over the sessions of the **Rajya Sabha** and ensures the smooth functioning of the house.

→ The **Vice President** does not have voting rights in the **Rajya Sabha**, except in the case of a tie.

Other Options:

→ **Union Minister of Parliamentary Affairs**: This minister coordinates parliamentary business but is not the **Chairman** of the **Rajya Sabha**.

→ **The President of India**: The **President** is the ceremonial head of



state but does not preside over the **Rajya Sabha**.

→ **The Prime Minister of India**: The **Prime Minister** leads the government but does not preside over the **Rajya Sabha**.

Q-20 Article 44 of the constitution of India deals with:

- (A) Elections
- (B) Uniform Civil Code
- (C) Untouchability
- (D) Emergency

ANS- (B)

Explanation:

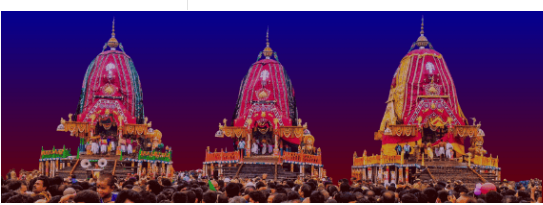
→ **Article 44** deals with the **Uniform Civil Code** (UCC) and directs the state to secure for the citizens a uniform civil code throughout the territory of India. The UCC aims to replace personal laws based on the scriptures and customs of each major religious community in India with a common set governing every citizen.

Other Options:

- **A (Elections)**: Related to **Articles 324 and 325**.
- **C (Untouchability)**: Covered under **Article 17**.
- **D (Emergency)**: Related to **Articles 352-360**.

Q-21 The following sentence has been divided into parts. One of them may contain an error. Select the part that contains the error from the given options. If you don't find any error, mark 'No error' as your answer.

I recall / you telling me the story of / the seven wiches.



- (A) I recall
- (B) you telling me the story of
- (C) No error
- (D) the seven wiches

ANS- D

Correct Sentence:

"I recall you telling me the story of the seven witches."

Reason:

► The correct spelling of "wiches" is "witches."

Q-22 The following sentence has been split into four segments.
Identify the segment that contains a grammatical error.

He coughed loud / to attract / the attention / of the audience.

- (A) to attract
- (B) of the audience
- (C) He coughed loud
- (D) the attention

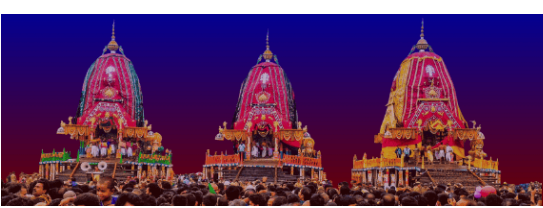
ANS- C

Correct Sentence:

"He coughed loudly to attract the attention of the audience."

Reason:

► "Loud" is an adjective, but here an adverb ("loudly") is needed to



describe the verb "coughed."

Q-23 Select the most appropriate pair of homonyms to fill in the blanks.

Despite being _____ about his appearance, Shiven was still nervous when the doctor had to find a _____ for the blood test.

- (A) vein; vein
- (B) vain; vein
- (C) vein; vain
- (D) vain; vain

ANS- B

Explanation:

► **Vain** means excessively concerned with one's appearance, and **vein** refers to a blood vessel. This pair fits the context perfectly.

Other Options:

- **Vein; vein** — Both words have the same meaning, which doesn't fit.
- **Vein; vain** — Incorrect order for the context.
- **Vain; vain** — Repeats the same word, which doesn't fit.

Q-24. Identify the segment in the sentence which contains a grammatical error. If there is no error, select 'No error'.

These experiments had been going on since several months.



- (A) These experiments
- (B) had been going on
- (C) No error
- (D) since several months.

ANS- D

Correct Sentence:

"These experiments had been going on for several months."

Reason:

► **"Since"** is used with specific points in time, whereas **"for"** is used with durations like **"several months"**.

25- Fill in the blank with the correct spelling from among the given options.

There is no _____ that can cure brain tumor immediately.

- A) pannacea
- B) panacea
- C) panecea
- D) penecea

Ans- B

Explanation- The correct spelling is **Plagiarism**, meaning "the practice of taking someone else's work or ideas and passing them off as one's



own."

Other Options-

- Plegiarism – Incorrect spelling, no meaning.
- Plegerism – Incorrect spelling, no meaning.
- Plagarism – Incorrect spelling, no meaning.

Q.26 Select the most appropriate segment to substitute the underlined words in the given sentence.

The referee declared that the participant who will score the highest points in the tally will take away the cash prize of ₹50 lakh.

- A. who can score the highest point
- B. who could score the highest point
- C. who scores the highest point
- D. who settles scores the highest point

Ans- C

Explanation:

→ The correct phrase is "**who scores the highest point**" since the main clause already uses future tense (*will take away*).

Other Options:

- (A) **who can score the highest point** — Indicates ability, not the final result.
- (B) **who could score the highest point** — Incorrect tense.
- (D) **who settles scores the highest point** — Grammatically wrong.

Q.27 Select the option that will improve the underlined part of the given sentence.

My friend vanished when the goons came to fight with me.

- A. mobilised when the thugs arrived
- B. attacked when the thugs arrived



- C. disappeared when the thugs arrived
- D. condemned when the thugs arrived

Ans- C

Explanation:

→ The correct improvement is "**disappeared when the thugs arrived**", as it conveys the right meaning in context.

Other Options:

(A) mobilised when the thugs arrived — Incorrect meaning.

(B) attacked when the thugs arrived — Changes the sense.

(D) condemned when the thugs arrived — Irrelevant to context.

28- Which of the following sentences is in Active voice?

- A) I saw some people killing a snake with a stick.
- B) With a stick they killed a snake and it was seen by me.
- C) The killing of a snake with a stick was seen by me.
- D) They saw their killing of a snake with a stick by me.

Ans- A

Explanation: "I saw some people killing a snake with a stick" is the correct active voice sentence because it retains the past tense and follows the active voice structure.

Other Options:



- B) With a stick they killed a snake and it was seen by me: **Incorrect** because it changes the sentence structure and tense.
- C) The killing of a snake with a stick was seen by me: **Incorrect** because it changes the sentence to passive voice.
- D) They saw their killing of a snake with a stick by me: **Incorrect** due to incorrect sentence structure.

Q-29 Select the option that expresses the given sentence in indirect speech.

The mechanic said, 'I can fix your car by tomorrow.'

- (A) The mechanic said that he could fix my car by the next day.
(B) The mechanic said that I could fix your car by tomorrow.
(C) The mechanic said that he could fix my car by tomorrow.
(D) The mechanic said that I could fix your car by the next day.

ANS- A

Explanation:

→ In indirect speech, "**can**" changes to "**could,**" and "**tomorrow**" becomes "**the next day.**" Pronouns also adjust based on the perspective.

Examples:

- ▶ **Direct:** "I can fix your car by tomorrow," said the mechanic.
- ▶ **Indirect:** The mechanic said that he **could fix my car by the next day.**

Other Options:

- ▶ **B:** Incorrect as the pronoun "**I**" is not adjusted.
- ▶ **C:** Incorrect as "**tomorrow**" remains unchanged.
- ▶ **D:** Incorrect as both pronouns and time expressions are inconsistent.



Q-30 Select the most appropriate **ANTONYM** of the given word.

Reflect

- (A) Distort
- (B) Absorb
- (C) Mimic
- (D) Project

ANS- B

Explanation:

► **Reflect** means **to throw back light or heat**. **Absorb** means **to take in** or **soak up**, making it the correct antonym.

Other Options:

- **(A) Distort** — means **to twist out of shape**.
- **(C) Mimic** — means **to imitate**.
- **(D) Project** — means **to cast forward or extend outward**.

Q-31 Select the most appropriate **ANTONYM** of the “paused” word.

They paused the movie.

- (A) Halted
- (B) Made
- (C) Watched
- (D) Continued

ANS- D



Explanation:

► **Paused** means **stopped temporarily**. **Continued** means **to proceed without stopping**, making it the correct antonym.

Other Options:

- (A) **Halted** — means **brought to a stop**.
- (B) **Made** — means **created or produced**.
- (C) **Watched** — means **observed or viewed**.

Q-32 Select the most appropriate **ANTONYM** of the “malice” word in the given sentence.

She is very popular as she bears no malice towards anyone.

- (A) Hatred
- (B) Goodwill
- (C) Spirituality
- (D) Humility

ANS- B

Explanation:

► **Malice** means **ill will** or **intent to harm**. **Goodwill** means **kindness** or **a friendly disposition**, making it the correct antonym.

Other Options:

- (A) **Hatred** — means **intense dislike**.
- (C) **Spirituality** — means **a concern with the soul or spirit**.
- (D) **Humility** — means **modesty or lack of arrogance**.



Q-33 Select the most appropriate synonym of the given word.

Bolster

- (A) Weaken
- (B) Discourage
- (C) Undermine
- (D) Strengthen

ANS- D

Explanation:

► **Bolster** means **to support** or **reinforce**. **Strengthen** means **to make stronger**, making it the correct synonym.

Other Options:

- **(A) Weaken** — means **to reduce strength**, an antonym.
- **(B) Discourage** — means **to dissuade or dishearten**.
- **(C) Undermine** — means **to weaken or erode**, an antonym.

Q-34 Select the most appropriate synonym of the given word.

Eerie

- (A) Normal
- (B) Mundane
- (C) Creepy
- (D) Common

ANS- C

Explanation:



► **Eerie** means **strange** or **frightening**. **Creepy** means **spooky** or **unnerving**, making it the correct synonym.

Other Options:

- (A) **Normal** — means **usual** or **ordinary**, an antonym.
- (B) **Mundane** — means **dull** or **ordinary**.
- (D) **Common** — means **frequent** or **usual**.

35- Choose the option that best describes the idiom

"You can't have your cake and eat it."

- A) You can't win a war or words with your wife.
- B) The baker is not an eater.
- C) You have been enjoying both of two desirable but mutually exclusive alternatives.
- D) You can't enjoy both of two desirable but mutually exclusive alternatives.

Ans- D

Means- The idiom "You can't have your cake and eat it" means you can't enjoy both of two desirable but mutually exclusive alternatives.

Examples-

- He wants to be rich and have a lot of free time, but **you can't have your cake and eat it**.
- She wanted to travel the world while keeping a stable job, but she quickly learned that **you can't have your cake and eat it**.

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

Hit the books



- (A) To organise a bookshelf
- (B) To begin studying
- (C) To read for pleasure
- (D) To hit someone with a book

ANS- B

Examples:

- With exams approaching, she decided to **hit the books** every evening.
- He promised his parents he would **hit the books** to improve his grades.

Other Options:

- **To organize a bookshelf** — Refers to arranging books.
- **To read for pleasure** — Refers to casual reading.
- **To hit someone with a book** — Literal and irrelevant.

37- Choose the best option from the given alternatives which can be substituted for the given word/sentence.

Constant efforts to achieve something

- (A) Perseverance
- (B) Dormitory
- (C) Wardrobe
- (D) Reservoir

Ans- A



Explanation: *Perseverance* means **constant efforts to achieve something despite difficulties.**

Other Options:

- **B) Dormitory** — A room for sleeping, especially in a school or institution.
- **C) Wardrobe** — A large cabinet for storing clothes.
- **D) Reservoir** — A large natural or artificial lake used to store water.

Q.38 Parts of a sentence are given below in jumbled order. Arrange the parts in the correct order to form a meaningful sentence.

- A. needs to be
- B. the shelf in
- C. a piece of wood
- D. the kitchen
- E. need to buy
- F. replaced, so I will

- (A) BEFCAD
- (B) ACDBFE
- (C) DEBACF
- (D) BDAFEC

Ans- BDAFEC

Explanation:

→ Order **B–D–A–F–E–C** makes the clear sentence: **“The shelf in the kitchen needs to be replaced, so I will need to buy a piece of wood.”** It follows place → requirement → consequence → action → object.

39- If the bus to the airport hadn't been so late, we _____ the plane.



- A. would have caught
- B. caught
- C. would catch
- D. had caught

Ans- A

Explanation: "If the bus hadn't been so late, we **would have caught** the plane" uses the correct conditional structure (3rd conditional).

Other Options:

- **B) caught:** Incorrect tense; it needs to be conditional.
- **C) would catch:** Incorrect conditional form for the past.
- **D) had caught:** Incorrect because it implies that the action happened.

40- The clerk dealing with _____ works of the office is occasionally seen in this _____ .

- (A) misllaneous, resturant
- (B) miscelaneous, restaurant
- (C) miscellaneuos, restaurant
- (D) miscellaneous, restaurant

Ans- D



Explanation: The clerk dealing with **miscellaneous** works of the office is occasionally seen in this **restaurant**.

Reason: Both words are correctly spelled and fit the context.

Other Options:

- ▶ A) **misllaneous, resturant** — misspellings.
- ▶ B) **miscelaneous, restaurant** — misspelling of "miscellaneous."
- ▶ C) **miscellaneuos, restaurant** — misspelling of "miscellaneous."

41. ନିମ୍ନୋକ୍ତ ବାକ୍ୟର ଉନ୍ନତ ସଂସ୍କରଣଟିକୁ ଚିହ୍ନାଅ ।

ଯେଉଁ କାର୍ଯ୍ୟକୁ ନିନ୍ଦା କରାଯାଏ, ତାହା କରିବା ଉଚିତ ନୁହେଁ ।

- A. ନିନ୍ଦନୀୟ କାର୍ଯ୍ୟ କରିବା ଅନୁଚିତ ।
- B. ନିନ୍ଦନୀୟ କାର୍ଯ୍ୟ କରିବା ଉଚିତ ନୁହେଁ ।
- C. ନିନ୍ଦନୀୟ କାର୍ଯ୍ୟ କଲେ ନିନ୍ଦା ମିଳେ ।
- D. ଭଲ କାମକୁ ନିନ୍ଦା କରିବା ଉଚିତ ନୁହେଁ । ।

ANS- A

42. ଅଜା ଯେତେବେଳେ ଘରେ ପହଞ୍ଚିଲେ, ସେତେବେଳେ ଚନ୍ଦ୍ରକାନ୍ତ ଘରେ ନଥିଲେ - ଗଠନ ଦୃଷ୍ଟିରୁ ଏହା କି ପ୍ରକାର ବାକ୍ୟ ?

- A. ସରଳ ବାକ୍ୟ
- B. ଯୌଗିକ ବାକ୍ୟ
- C. ଜଟିଳ ବାକ୍ୟ
- D. ମିଶ୍ର ବାକ୍ୟ



ANS- C

43. ଗୋପାଳ ବିଦ୍ୟାଳୟକୁ ଯାଇ ପ୍ରଧାନ ଶିକ୍ଷକଙ୍କୁ ଦେଖାକଲା - ଏହାକୁ ଯୌଗିକ ବାକ୍ୟରେ ପରିଣତ କର

- A. ଗୋପାଳ ବିଦ୍ୟାଳୟରେ ପ୍ରଧାନ ଶିକ୍ଷକଙ୍କୁ ଦେଖାକଲା
- B. ଗୋପାଳ ବିଦ୍ୟାଳୟକୁ ଗଲା ଓ ପ୍ରଧାନ ଶିକ୍ଷକଙ୍କୁ ଦେଖାକଲା
- C. ଯେହେତୁ ଗୋପାଳ ବିଦ୍ୟାଳୟକୁ ଗଲା ତେଣୁ ପ୍ରଧାନ ଶିକ୍ଷକଙ୍କୁ ଦେଖାକଲା
- D. ବିଦ୍ୟାଳୟକୁ ଯାଇଥିବା ଗୋପାଳ ପ୍ରଧାନ ଶିକ୍ଷକଙ୍କୁ ଦେଖାକଲା

ANS- B

44- କୁଳନ୍ଦ୍ର'- ଶବ୍ଦର ବିପରୀତ ଶବ୍ଦ କ'ଣ ?

- (A) ପ୍ରଭୁଲିତ
- (B) ନିର୍ବାପିତ
- (C) ନିର୍ଲିପ୍ତ
- (D) ଲିଭନ୍ତା

Ans- B

45- 'ପ୍ରସାରଣ' - ଶବ୍ଦର ବିପରୀତ ଶବ୍ଦ କ'ଣ ?

- (A) ପ୍ରକ୍ଷିପ୍ତ





- (B) ସଙ୍କୋଚନ
- (C) ଅପ୍ରସାରଣ
- (D) ଅସାରଣ

Ans- B

46- କେଉଁଟି 'ଜଳନିଧି'ର ସମାର୍ଥ ବାଚକ ଶବ୍ଦ ?

- A) ପୋଖରୀ
- B) ନଦୀ
- C) ମେଘ
- D) ସମୁଦ୍ର

Ans- D

47- 'ଜିଜ୍ଞାସା' ଶବ୍ଦର ସଠିକ ଅର୍ଥ ବାଛି ।

- (A) ଜିଣିବାର ଇଚ୍ଛା
- (B) ଜଣେଇବାର ଇଚ୍ଛା
- (C) ଜାଣିବାର ଇଚ୍ଛା
- (D) ଜିଇବାର ଇଚ୍ଛା

Ans- C



48- ନିମ୍ନୋକ୍ତ ମଧ୍ୟରୁ କେଉଁଟି ଶୁଦ୍ଧ ଶବ୍ଦ ?

- (A) ଶୃତଲିଖନ
- (B) ବିକିରଣ
- (C) କାଳୀଦାସ
- (D) ବୈଷମ୍ୟତା

Ans- B

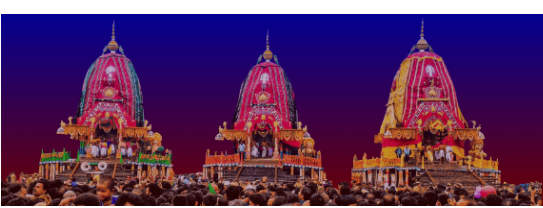
49- ଠିକ ଶବ୍ଦଟି ଚିହ୍ନାଇ ଦିଅ ।

- (A) ଉପରିଲିଖିତ
- (B) ଉପରଲିଖିତ
- (C) ଉର୍ଦ୍ଧ୍ୱଲିଖିତ
- (D) ଉପରେ ଉଲ୍ଲିଖିତ

Ans- A

50- 'ଯାହାକୁ ଶାସନ କରାଯାଏ' – ଏକ ପଦରେ ପ୍ରକାଶ କର ।

- (A) ଶାସକ
- (B) ଶାସ୍ୟକ
- (C) ଶୋଷିତ





(D) ଶିକ୍ଷ୍ୟ

Ans- D

51- ଏକପଦରେ ପ୍ରକାଶ କର- ‘ନାହିଁ ଅନ୍ୟ ଉପାୟ ଯାହାର’

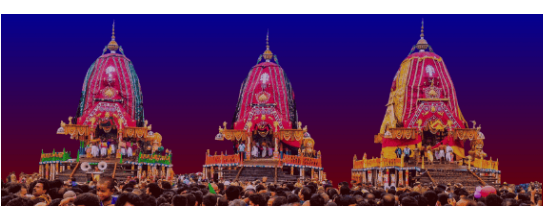
- (A) ଉପାୟଶୂନ୍ୟ
- (B) ନନ୍ୟପାୟ
- (C) ଅନନ୍ୟୋପାୟ
- (D) ଶୂନ୍ୟଉପାୟ

Ans- C

52- 'ଖୋଳ ପର୍ବତ ମାର ମୂଷା' - ଏହି ଲୋକବାଣୀଟିର ଅର୍ଥ କ'ଣ ?

- A. ସାମାନ୍ୟ ଘଟଣା
- B. ମୂଲ୍ୟହୀନ ଉଦ୍ଦେଶ୍ୟ
- C. ସାମାନ୍ୟ କାର୍ଯ୍ୟ ପାଇଁ ବହୁ ଶ୍ରମ
- D. ଅତି ବୁଦ୍ଧିମାନ

Ans- C



53. ‘ମନ୍ଦଲୋକ ମନ୍ଦ ପରିବେଶରୁ ଫାଇଦା ଉଠାଇବା’ ଅର୍ଥ ପ୍ରକାଶକ ରୂଢ଼ିଟିକୁ ବାଛି ।

- (A) କଙ୍କଡ଼ାକୁ ଗୋଳିପାଣି ସୁହାଇବା
- (B) ଧୂଆମୂଳା ଅଧୂଆ ମୂଳା ସମାନ
- (C) ମାଛ ତେଲରେ ମାଛ ଭାଜିବା
- (D) କେରାଣ୍ଡି ଗୁଞ୍ଜି ବାଳିଆ ଧରିବା

ANS- A

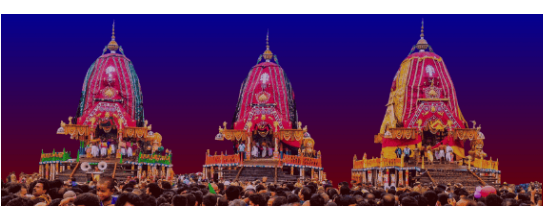
54- ‘ଅନ୍ତର୍ଗତ’ ର ସନ୍ଧିବିଚ୍ଛେଦ କଲେ କ’ଣ ହେବ?

- a) ଅନ୍ତଃ + ଆଗତ
- B) ଅନ୍ତର + ଗତ
- C) ଅନ୍ତଃ + ଗତ
- D) ଅନ୍ତଃ + ଗତ

Ans- D

55- ମଧୁଦାସ ଖାଇଖାଇ ସମ୍ପତ୍ତି ସାରିଦେଲେ| “ଖାଇଖାଇ” ଶବ୍ଦଟିକୁ କେଉଁ ପଦ ରୂପେ ବ୍ୟବହାର କରାଯାଇଛି?

- A) କ୍ରିୟା ବିଶେଷଣ
- B) ବିଶେଷ୍ୟ
- C) କ୍ରିୟାବାଚକ ବିଶେଷ୍ୟ
- D) ଅସମାପିକା କ୍ରିୟା



Ans- D

ଅନୁଛେଦ ଅନୁଯାୟୀ ପ୍ରଶ୍ନ ଗୁଡ଼ିକର ଉତ୍ତର ଦିଅ ।

ସବୁ ସହରର ଗୋଟାଏ ଗୋଟାଏ ନିଜସ୍ୱ ସଭା ଅଛି – ସେ ସଭା ଉପଯୁକ୍ତ ସମୟରେ ନିର୍ଦ୍ଦିଷ୍ଟ ରୂପ ନିଏ । କଳିକତାର ସଭ୍ୟତା, ମାନ୍ଦ୍ରାଜର ନମ୍ରତା, ବମ୍ବେର ଚାଞ୍ଚଲ୍ୟ ସେଇସବୁ ସହରମାନଙ୍କ ପାଇଁ ଏକ ଭିନ୍ନ ବାତାବରଣ ସୃଷ୍ଟି କରିଛି । ଏ ତିନୋଟି ସହର ଅପେକ୍ଷାକୃତ ନୂତନ । କିନ୍ତୁ ଦିଲ୍ଲୀ ? ଏହାର ପୁରାତନ ସଭ୍ୟତାକୁ ନେଇ, ଇତିହାସକୁ ନେଇ ସେ ଅଦ୍ୱିତୀୟ । ଏହାର କ୍ଷମତା, ଐକତ୍ୟ, ଅହଙ୍କାର, ଗର୍ବକୁ ଧରି ସେ ମୂର୍ତ୍ତିମତ୍ତ । ଏ ଐକତ୍ୟକୁ ସହ୍ୟ କରି, ଏ ଖଣ୍ଡର ସଭ୍ୟତାର ମୂଳଦୁଆ ଉପରେ ଭାରତର ଇତିହାସ ମୁଣ୍ଡ ଟେକି ଠିଆ ହୋଇଛି । ଗୋଟିଏ ସଭ୍ୟତାର ଉତ୍ଥାନ ପାଇଁ ଅନ୍ୟ ଗୋଟିଏ ସାମ୍ରାଜ୍ୟର ବା ସଭ୍ୟତାର ପତନ ଅବସମ୍ଭାବୀ । ଐତିହାସିକ ପର୍ଯ୍ୟବେଶିତ ଲେଖା କେବଳ ପେଶାଦାର ଲୋକଙ୍କର ଏକାନ୍ତ ନିଜସ୍ୱ । ପ୍ରତ୍ୟେକ ଯୁଗର କ୍ରମିକ ଇତିବୃତ୍ତି, ଅନେକ ଅନେକ ଅନୁଶାସନର ଛୋଟ ବଡ଼ ଖୋଦନ, ଜନଶୂରୁତି, ପରିବ୍ରାଜକମାନଙ୍କ ବର୍ଣ୍ଣନା, ସାହିତ୍ୟିକମାନଙ୍କର ସାମାଜିକ ଚିତ୍ରଣ, ଧର୍ମର ପ୍ରଭାବ, ସାମାଜିକ ଚେତନା - ସବୁର ମିଳିତ ବିଷୟବସ୍ତୁ ଉପରେ ଆଧାରିତ ସେ ଯୁଗର ଜୀବନଶୈଳୀର ବର୍ଣ୍ଣନାର ନାମହିଁ ଇତିହାସ । ପରଯୁଗରେ ଏ ହୁଏ କାହାଣୀ ।

Q.56 ସେ ଯୁଗର ଇତିହାସ ପରଯୁଗରେ କେଉଁ ରୂପ ଲାଭ କରେ ?

- A. ବଚନିକା
- B. କାହାଣୀ
- C. ଜନଶୂରୁତି
- D. କିମ୍ବଦନ୍ତୀ

ANS- B

Q.57 ଗୋଟିଏ ସଭ୍ୟତାର ଉତ୍ଥାନ ପାଇଁ କ'ଣ ଆବଶ୍ୟକ ?





- A. ଜନସଂଖ୍ୟା ବୃଦ୍ଧି
- B. କ୍ଷମତା ପରିବର୍ତ୍ତନ
- C. ଅନ୍ୟ ଗୋଟିଏ ସାମ୍ରାଜ୍ୟ ବା ସଭ୍ୟତାର ପତନ
- D. ଅନ୍ୟ ଜଣେ ଶାସକଙ୍କ ଆଗମନ

ANS- C

Q.58 ଲେଖକଙ୍କ ଦୃଷ୍ଟିରେ ମାହାଜ ସହର କେଉଁ ଗୁଣ ପାଇଁ ପ୍ରସିଦ୍ଧ ?

- A. ଉଦାରତା
- B. ବାସ୍ତୁଲ୍ୟ
- C. ଚାଞ୍ଚଲ୍ୟ
- D. ନମ୍ରତା

ANS- D

Q.59 ଅନୁଛେଦର ବିଷୟବସ୍ତୁ ଅନୁଯାୟୀ ସଠିକ୍ ଶୀର୍ଷକଟି ଚୟନ କର ।

- A. ଏଇ ମୋ'ର ମାହାଜ
- B. ଏଇ ମୋ'ର ଦିଲ୍ଲୀ
- C. ଏଇ ମୋ'ର ବମ୍ବେ
- D. ଏଇ ମୋ'ର କଲିକତା

ANS- B



Q.60 ଦିଲ୍ଲୀ ସହର କେଉଁଥିପାଇଁ ଅଦ୍ଭିତୀୟ ?

- A. ପୁରାତନ ସଭ୍ୟତା ଓ ଇତିହାସ ପାଇଁ
- B. ପୁରାତନ ବାସିନ୍ଦା ପାଇଁ
- C. ପୁରୁଣା ସଂସ୍କୃତି ପାଇଁ
- D. ନୂତନ ସଭ୍ୟତା ଓ ଇତିହାସ ପାଇଁ

ANS- A

61- Which of the answer figures is exactly the mirror image of the given figure?



Which of the answer figures is exactly the mirror image of the given figure?



Figure 1



Figure 2



Figure 3

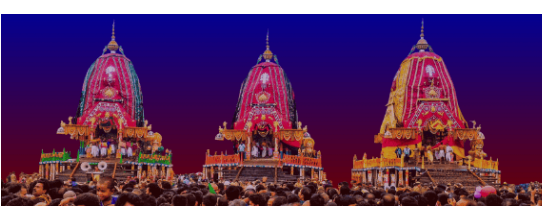


Figure 4

Answer Figures

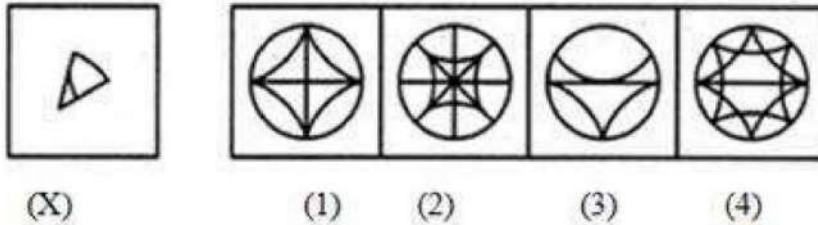
- A) Figure 1
- B) Figure 2
- C) Figure 3
- D) Figure 4

Ans- D



Q.62

Q.2 Which of the following four options embeds the original figure X?



1.3

2. 1

3. 2

4. 4

Ans- 3

Q.63 Select the set in which the numbers are related in the same way as are the numbers of the following sets.

(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. Eg. 13 – Operations on 13 such as adding/subtracting/multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed)

(35, 5, 7)

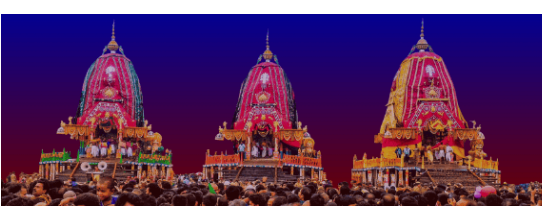
(108, 12, 9)

(1) (118, 15, 9)

(2) (91, 13, 7)

(3) (254, 17, 7)

(4) (114, 14, 8)





Ans- 2

Q.64 Select the word-pair that best represents a similar relationship to the one expressed in the pair of words given below.

France : Gallic Rooster

(The words must be considered as meaningful English words and must NOT be related to each other based on the number of letters/number of consonants/vowels in the word.)

- (1) Australia : Emu
- (2) New Zealand : Hornbill
- (3) India : Eagle
- (4) Germany : Swan

Ans- 1

Q.65 Select the option in which the numbers share the same relationship as that shared by the given pair of numbers.

40 : 123

63 : 192

(Note: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits.)

- (1) 68 : 214
- (2) 48 : 152
- (3) 39 : 120
- (4) 46 : 131

Ans- 3

Q.66 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 conclusion(s) logically follow(s) from the statements.

Statements:





All spades are diamonds.

All diamonds are hearts.

Conclusions:

(I) Some hearts are spades.

(II) Some spades are hearts.

(A) Both conclusions (I) and (II) follow.

(B) Only conclusion (I) follows.

(C) Only conclusion (II) follows.

(D) Neither conclusion (I) nor (II) follows.

ANS- A

Q-67 Refer to the given series and answer the question that follows (all numbers are single-digit numbers only).

(Left) 6 8 4 3 9 5 7 2 1 5 7 3 7 6 2 1 4 5 7 8 5 3 4 1 2 4 9 (Right)

How many such even digits are there, each of which is immediately preceded by an even digit and also immediately followed by an odd digit?

(A) 2

(B) 5

(C) 3

(D) 4

ANS- C

Q-68 Vishal ranked 15th from the top and 44th from the bottom in his class. How many students are there in his class?

(A) 58

(B) 56

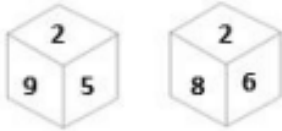
(C) 59

(D) 57



ANS- A

Q.69 Two different positions of the same dice with faces 9, 2, 5, 3, 8 and 6 are shown below. Select the number that will be on the face opposite to the one



having 2.

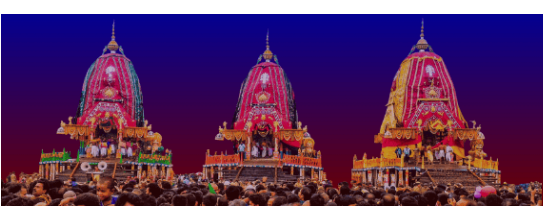
- (1) 6
- (2) 3
- (3) 5
- (4) 9

Ans- 2

Q-70 Seven boxes A, B, C, D, E, F and G are kept one over the other but not necessarily in the same order. Only four boxes are kept between C and A. Only F is kept above C. Only two boxes are kept between E and B. D is kept immediately above G. B is not kept immediately above D. How many boxes are kept below D?

- (A) Two
- (B) Four
- (C) Three
- (D) One

ANS- C





Q-71 Mina starts from Point A and drives 7 km towards east. He then takes a right turn, drives 5 km, turns right and drives 12 km. He then takes a right turn and drives 12 km. He takes a final right turn, drives 5 km and stops at Point P. How far (shortest distance) and towards which direction should he drive in order to reach Point A again?

- (A) 8 km to the north
- (B) 6 km to the south
- (C) 5 km to the east
- (D) 7 km to the south

ANS- D

Q-72 In a certain code language, ‘some more time’ is coded as ‘nk rw sb’ and ‘have some water’ is coded as ‘sb ty gp’. How is ‘some’ coded in the given language?

- (A) nk
- (B) gp
- (C) ty
- (D) sb

ANS- D



Q-73 Each of E, F, G, I, W, X and Y has an exam on a different day of a week starting from Monday and ending on Sunday of the same week. I has the exam on Thursday. X has the exam on one of the days after E and on one of the days before F. Y has the exam on one of the days after W but on one of the days before G. W has the exam on one of the days after I. How many people have the exam between Y and X?

- (A) Four
- (B) One
- (C) Three
- (D) Two

ANS- C

Q-74 C is the brother of A. B is the sister of C. E is the mother of B. E is married to D. F is married to C. Y is the husband of X. A is the father of X. How is F related to X?

- (A) Mother's sister
- (B) Father's brother's wife
- (C) Father's sister
- (D) Father's mother's sister

ANS- B

Q.75 The position of how many letters will remain unchanged if each of the letters in the word 'COUNTED' is arranged in English alphabetical order?

- (1) None
- (2) Two





(3) More than three

(4) Three

Ans- 2

76. Which of the given options will make the given equation correct after interchanging the signs ?

$$24 + 6 \times 3 \div 3 - 1 = 14$$

(a) + and \div

(b) x and -

(c) x and +

(d) - and \div

Ans- A

77- Reading : Knowledge :: Work : ?

A. Experience

B. Engagement

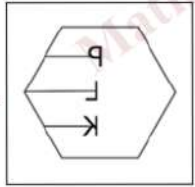
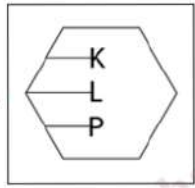
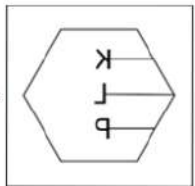
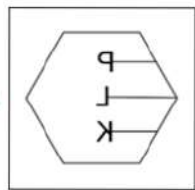
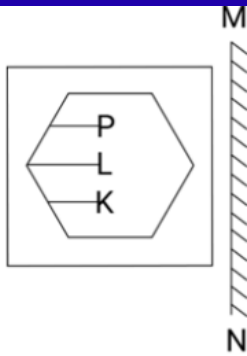
C. Employment

D. Experiment

Ans- A

Q.78 Select the correct mirror image of the given figure when the mirror is placed at MN as shown below





Ans – A

79- In a certain code language, if TIGER is coded as GRTVI, then how is FIFTY coded in that language?

- (A) LIIVB
- (B) URVBG



(C) URUGB

(D) ILIWB

Ans- C

80- What should be written in the place of question mark in the given series?

E11, H13, ?, N19, Q23

- ପ୍ରଦତ୍ତ ଶୃଙ୍ଖଳାରେ ପ୍ରଶ୍ନଚିହ୍ନ ସ୍ଥାନରେ କ'ଣ ଲେଖିବା ଉଚିତ୍? E11, H13, ?, N19, Q23

(A) J15

(B) K17

(C) K15

(D) L17

Ans- B

Q-81 A dishonest shopkeeper claims to sell salt at a rate of ₹25/kg. The cost price of the salt is ₹25/kg. Not satisfied with this, he tries to make profit by removing 200 gm from each kg. What is the shopkeeper's gain percentage?

(A) 25%

(B) 20%

(C) 15%

(D) 30%

ANS- A

Given:

→ Marked selling rate = ₹25 per kg



→ Cost price = ₹25 per kg

→ Shortage per "kg" sold = 200 g = 0.2 kg (customer receives 0.8 kg)

Formula:

→ CP of delivered 0.8 kg = 25×0.8

→ Gain % = $\frac{SP-CP}{CP} \times 100\%$

Solution:

▶ CP (for 0.8 kg) = $25 \times 0.8 = 20$

▶ SP (charged as 1 kg) = 25

▶ Profit = $25 - 20 = 5$

▶ Gain % = $\frac{5}{20} \times 100\% = 25\%$

Q-82 If 7845K854 is divisible by 11, then what is the value of K?

(A) 9

(B) 6

(C) 7

(D) 8

ANS- A

Given:

→ Number = 7 8 4 5 K 8 5 4 is divisible by 11

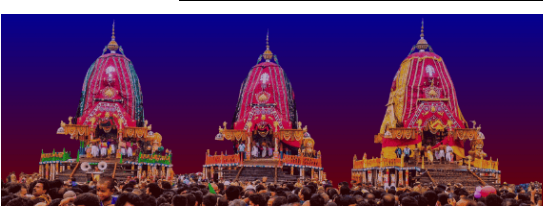
Formula:

→ Divisibility by 11: |(sum of digits in odd places) – (sum of digits in even places)| $\equiv 0 \pmod{11}$

Solution:

▶ Odd-place sum = $7 + 4 + K + 5 = 16 + K$

▶ Even-place sum = $8 + 5 + 8 + 4 = 25$



- ▶ $|(16 + K) - 25| = |K - 9| \equiv 0 \pmod{11}$
- ▶ Smallest digit solution $K = 9$

Q-83 Two triangles EFG and HIJ are congruent. If the area of ΔEFG is 124 cm^2 , then the area of ΔHIJ will be:

- (A) 62 cm^2
- (B) 124 cm^2
- (C) 31 cm^2
- (D) 248 cm^2

ANS- B

Given:

$$\rightarrow \Delta EFG \cong \Delta HIJ$$

$$\rightarrow \text{Area}(\Delta EFG) = 124 \text{ cm}^2$$

Formula:

\rightarrow Congruent triangles \Rightarrow equal corresponding sides and equal areas

Solution:

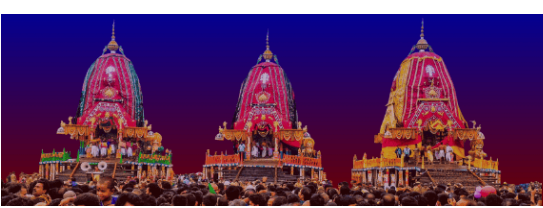
$$\rightarrow \text{Area}(\Delta HIJ) = \text{Area}(\Delta EFG) = 124 \text{ cm}^2$$

Q-84 If the equations $4x + (k - 2)y + 3 = 0$ and $(k - 2)x + 9y - 5 = 0$ ($k > 0$) are parallel, then find the value of $k^2 + 6$.

- (A) 72
- (B) 68
- (C) 64
- (D) 70

ANS- D

Given:



→ Lines $4x + (k - 2)y + 3 = 0$ and $(k - 2)x + 9y - 5 = 0$ are parallel, $k > 0$

Formula:

→ For parallel lines $a_1x + b_1y + c_1 = 0$ and $a_2x + b_2y + c_2 = 0$: $\frac{a_1}{a_2} = \frac{b_1}{b_2}$
and $\frac{a_1}{a_2} \neq \frac{c_1}{c_2}$

Solution:

▶ $\frac{4}{k-2} = \frac{k-2}{9} \Rightarrow 4 \cdot 9 = (k - 2)^2 \Rightarrow (k - 2)^2 = 36$

▶ $k - 2 = \pm 6 \Rightarrow k = 8$ (since $k > 0$)

▶ $k^2 + 6 = 8^2 + 6 = 64 + 6 = 70$

Q-85 If the length, breadth, and height of a cuboid is 8 cm, 4 cm, and 6 cm, respectively, then the volume (in cm^3) of the cuboid is:

- (A) 172
- (B) 96
- (C) 192
- (D) 218

ANS- C

Given:

→ Length = 8 cm

→ Breadth = 4 cm

→ Height = 6 cm

Formula:

→ Volume of cuboid = $l \times b \times h$

Solution:

▶ $V = 8 \times 4 \times 6 = 192 \text{ cm}^3$



Q-86 In an election between two candidates, the one who gets 88% of the votes is elected by a majority of 684 votes. What is the total number of votes polled? (all polled votes are valid)

- (A) 900
- (B) 850
- (C) 800
- (D) 750

ANS- A

Given:

→ Winner gets 88% votes, loser gets 12%, majority = 684

Formula:

→ Majority = (88% – 12%) × Total = 76% × T

Solution:

▶ $0.76 T = 684 \Rightarrow T = \frac{684}{0.76} = 900$

▶ Total votes polled = 900

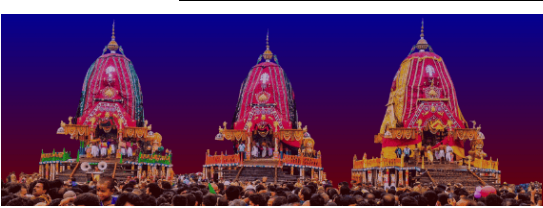
Q-87 If x , y and z are positive numbers and $x + y + z = 1$, then the least value of $\frac{1}{x} + \frac{1}{y} + \frac{1}{z}$ is:

- (A) 5
- (B) 11
- (C) 7
- (D) 9

ANS- D

Given:

→ $x > 0$, $y > 0$, $z > 0$, $x + y + z = 1$



Formula:

→ By Titu's Lemma (Cauchy-Schwarz): $\frac{1}{x} + \frac{1}{y} + \frac{1}{z} \geq \frac{(1+1+1)^2}{x+y+z}$

Solution:

▶ $\frac{1}{x} + \frac{1}{y} + \frac{1}{z} \geq \frac{9}{1} = 9$

▶ Equality at $x = y = z = \frac{1}{3}$, hence least value = 9

Q-88 A thief noticed a policeman at a distance of 600 metres. The thief started running and the policeman chased him. The thief and policeman are running at speeds of 12 km/h and 15 km/h, respectively. Find the time (in minutes) required for the policeman to catch the thief.

- (A) 8
- (B) 12
- (C) 15
- (D) 10

ANS- B

Given:

- Initial distance = 600 m = 0.6 km
- Thief's speed = 12 km/h
- Policeman's speed = 15 km/h

Formula:

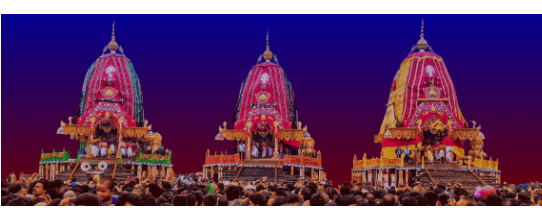
→ Relative speed (closing) = 15 – 12 = 3 km/h

→ Time = $\frac{\text{distance}}{\text{relative speed}}$

Solution:

▶ $t = \frac{0.6}{3} = 0.2 \text{ h}$

▶ $0.2 \text{ h} \times 60 = 12 \text{ min}$



Q-89 If $\frac{\sec\alpha + \tan\alpha}{\sec\alpha - \tan\alpha} = \frac{7}{4}$, then find the value of cosec α .

- (A) $\frac{1}{3}$
- (B) $\frac{11}{3}$
- (C) $\frac{1}{11}$
- (D) $\frac{3}{11}$

ANS- B

Given:

$$\rightarrow \frac{\sec\alpha + \tan\alpha}{\sec\alpha - \tan\alpha} = \frac{7}{4}$$

Formula:

$$\rightarrow \text{Let } \sec\alpha + \tan\alpha = 7k, \sec\alpha - \tan\alpha = 4k \text{ so } (\sec\alpha + \tan\alpha)(\sec\alpha - \tan\alpha) = 1 \Rightarrow 28k^2 = 1 \Rightarrow k = \frac{1}{\sqrt{28}}$$

$$\rightarrow \sec\alpha = \frac{(7k+4k)}{2} = \frac{11k}{2}, \tan\alpha = \frac{(7k-4k)}{2} = \frac{3k}{2}$$

$$\rightarrow \sin\alpha = \tan\alpha \cdot \cos\alpha = \tan\alpha \cdot \frac{1}{\sec\alpha}$$

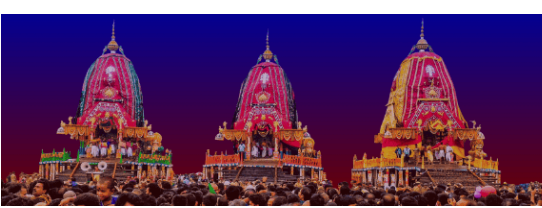
Solution:

$$\blacktriangleright \sec\alpha = \frac{11}{2\sqrt{28}} = \frac{11}{4\sqrt{7}} \Rightarrow \cos\alpha = \frac{4\sqrt{7}}{11}$$

$$\blacktriangleright \tan\alpha = \frac{3}{2\sqrt{28}} = \frac{3}{4\sqrt{7}}$$

$$\blacktriangleright \sin\alpha = \left(\frac{3}{4\sqrt{7}}\right) \left(\frac{4\sqrt{7}}{11}\right) = \frac{3}{11} \Rightarrow \csc\alpha = \frac{11}{3}$$

Q-90 A stock portfolio consists of four stocks. Stock A represents 20% of the portfolio and has a return of 6%. Stock B represents 30% of the portfolio and has a return of 8%. Stock C represents 20% of the portfolio and has a return of 4%. Stock D represents the remaining 30% of the portfolio and has a negative-return of 5%. What is the average return of the portfolio?



- (A) 2.9%
- (B) 3.2%
- (C) 2.6%
- (D) 3.4%

ANS- A

Given:

→ Weights and returns: A: 20%, 6%, B: 30%, 8%, C: 20%, 4%,
D: 30%, -5%

Formula:

→ Portfolio average return = $\sum(\text{weight} \times \text{return})$

Solution:

- ▶ $0.20 \times 6 = 1.2\%$
- ▶ $0.30 \times 8 = 2.4\%$
- ▶ $0.20 \times 4 = 0.8\%$
- ▶ $0.30 \times (-5) = -1.5\%$
- ▶ Total = $1.2 + 2.4 + 0.8 - 1.5 = 2.9\%$

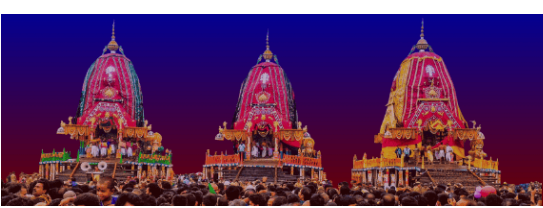
Q-91 The mean proportional of $8a^2$ and $\frac{18}{a^2}$, where a is a positive number, is _____.

- (A) $\frac{12}{a^2}$
- (B) 12
- (C) $12a^2$
- (D) $12a$

ANS- B

Given:

→ Numbers = $8a^2$ and $\frac{18}{a^2}$, with $a > 0$



Formula:

→ Mean proportional $m = \sqrt{AB}$

Solution:

▶ $m = \sqrt{8a^2 \cdot \frac{18}{a^2}} = \sqrt{144} = 12$

Q-92 The value of $\cos^2 29^\circ + \cos^2 61^\circ$ is:

(A) 2

(B) 1

(C) 0

(D) $\frac{\sqrt{3}}{2}$

ANS- B

Given:

→ Compute $\cos^2 29^\circ + \cos^2 61^\circ$

Formula:

→ $\cos(61^\circ) = \sin(29^\circ)$, and $\sin^2 \theta + \cos^2 \theta = 1$

Solution:

▶ $\cos^2 29^\circ + \cos^2 61^\circ = \cos^2 29^\circ + \sin^2 29^\circ = 1$

Q-93 The distance between the centres of two circles of radii 22 cm and 10 cm is 37 cm. If the points of contact of a direct common tangent to these circles are M and Q, then find the length of the line segment MQ.

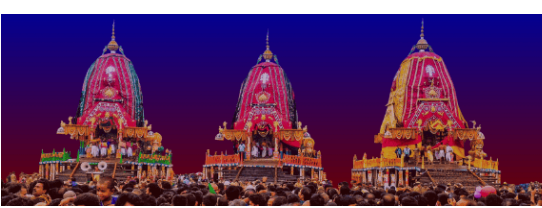
(A) 29 cm

(B) 25 cm

(C) 35 cm

(D) 39 cm

ANS- C



Given:

→ Radii $r_1 = 22$ cm, $r_2 = 10$ cm

→ Distance between centres $d = 37$ cm

Formula:

→ Length of direct common tangent segment between points of contact =
 $\sqrt{d^2 - (r_1 - r_2)^2}$

Solution:

▶ $\sqrt{37^2 - 12^2} = \sqrt{1369 - 144} = \sqrt{1225} = 35$

Q-94 Mohan borrows a sum of ₹4,22,092 at the rate of 20% per annum simple interest. At the end of the first year, he repays ₹21,679 towards return of principal amount borrowed. If Mohan clears all pending dues at the end of the second year, including interest payment that accrued during the first year, how much does he pay (in ₹) at the end of the second year?

- (A) 564914
- (B) 561347
- (C) 556367
- (D) 558380

ANS- A

Given:

→ Principal $P_0 = 422092$, rate $r = 20\%$ p.a. (simple interest)

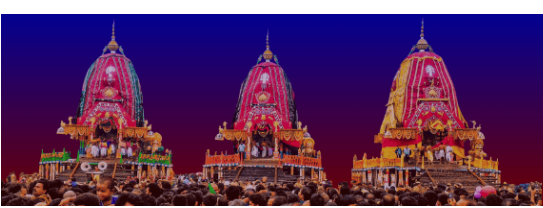
→ After 1 year, principal repayment = 21679 (no interest paid then)

Formula:

→ Simple interest $I = Prt$

Solution:

▶ Interest for year 1 on 422092: $I_1 = 422092 \times 0.2 \times 1 = 84418.4$



- ▶ Principal after repayment: $P_1 = 422092 - 21679 = 400413$
- ▶ Interest for year 2 on 400413: $I_2 = 400413 \times 0.2 \times 1 = 80082.6$
- ▶ Total at end of year 2 = $P_1 + I_1 + I_2 = 400413 + 84418.4 + 80082.6 = 564914$

Q-95 R pays ₹100 to P with ₹5, ₹2 and ₹1 coins. The total number of coins used for paying are 40. What is the number of coins of denomination ₹5 in the payment?

- (A) 13
- (B) 18
- (C) 17
- (D) 16

ANS- A

Given:

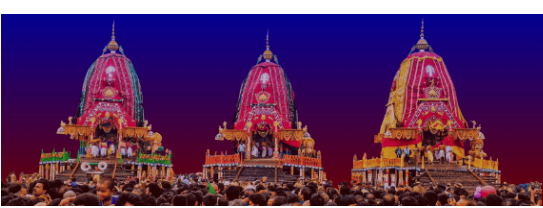
- Total amount = ₹100
- Total coins = 40
- Coin denominations = ₹5, ₹2, ₹1 with counts a, b, c

Formula:

- $a + b + c = 40$
- $5a + 2b + 1c = 100$

Solution:

- ▶ From $c = 40 - a - b$, substitute in value: $5a + 2b + 40 - a - b = 100 \Rightarrow 4a + b = 60$
- ▶ Hence $b = 60 - 4a, c = 40 - a - (60 - 4a) = 3a - 20$
- ▶ Nonnegative $b, c \Rightarrow a \leq 15$ and $a \geq \frac{20}{3} \Rightarrow a \geq 7$. Among options {13,18,17,16}, only $a = 13$ fits.



► Check: $b = 60 - 52 = 8$, $c = 39 - 20 = 19 \Rightarrow 13 + 8 + 19 = 40$, $65 + 16 + 19 = 100$

Q-96 The radii of the two cones are in the ratio of 2 : 5 and their volumes are in the ratio of 3 : 5. What is the ratio of their heights?

- (A) 15 : 4
- (B) 11 : 15
- (C) 4 : 11
- (D) 13 : 11

ANS- A

Given:

→ Radii ratio $r_1 : r_2 = 2 : 5$

→ Volume ratio $V_1 : V_2 = 3 : 5$

Formula:

→ For cones $V \propto r^2 h \Rightarrow \frac{V_1}{V_2} = \frac{r_1^2 h_1}{r_2^2 h_2}$

Solution:

► $\frac{3}{5} = \frac{4h_1}{25h_2} \Rightarrow 20h_1 = 75h_2 \Rightarrow \frac{h_1}{h_2} = \frac{15}{4}$

Q-97 A grocer professes to sell rice at the cost price, but uses a fake weight of 870 g for 1 kg. Find his profit percentage (correct to two decimal places).

- (A) 14.94%
- (B) 18.21%
- (C) 15.11%
- (D) 11.11%

ANS- A

Given:



→ Claims CP sale but uses 870 g as 1 kg

Formula:

$$\rightarrow \text{Profit \%} = \left(\frac{\text{Money received} - \text{Cost of goods given}}{\text{Cost of goods given}} \right) \times 100\%$$

Solution:

► For 1 kg tag, money received = C (per kg CP), goods given = 0.87 kg costing $0.87C$

► Profit = $C - 0.87C = 0.13C$

► Profit % = $\frac{0.13C}{0.87C} \times 100 = \frac{13}{87} \times 100 = 14.94\%$

Q-98 Which of the following can be the value of k , if $\frac{(88 \div 8 \times k - 3 \times 3)}{(6^2 - 7 \times 5 + k^2)} = 1$?

- (A) 1, 10
- (B) 3, 10
- (C) 2, 7
- (D) 4, 7

ANS- A

Given:

$$\rightarrow \frac{88 \div 8 \times k - 3 \times 3}{6^2 - 7 \times 5 + k^2} = 1$$

Formula:

→ Evaluate numerator and denominator, then equate to 1

Solution:

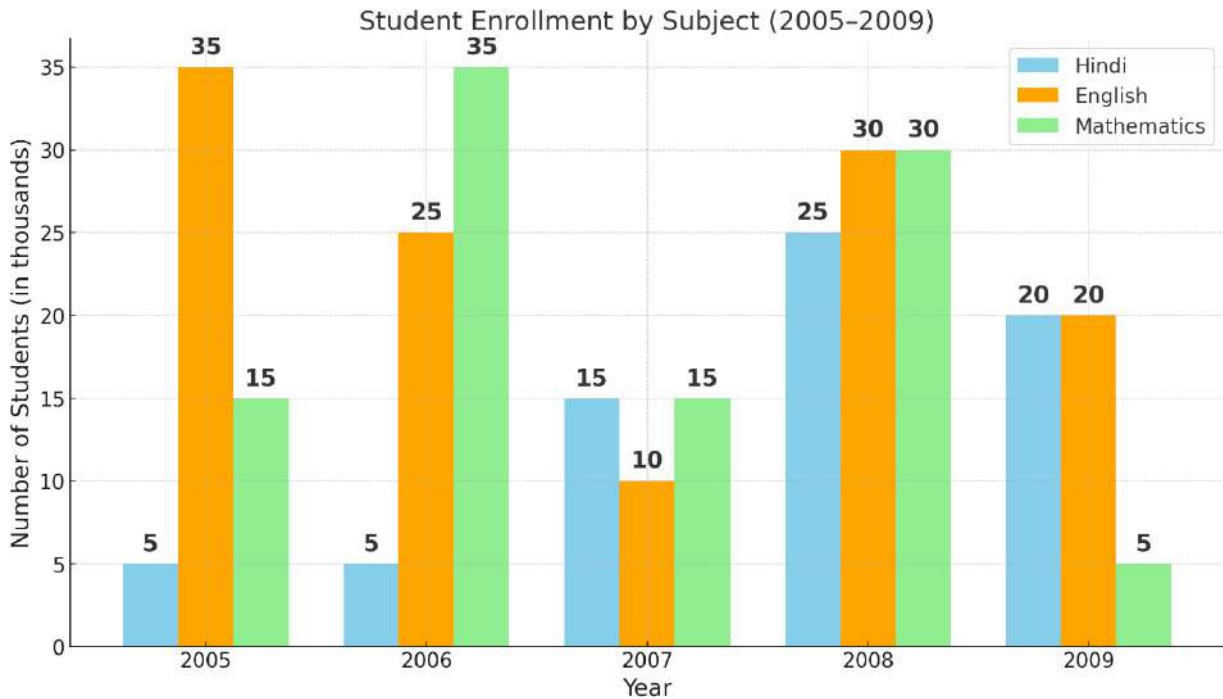
► Numerator = $11k - 9$, Denominator = $36 - 35 + k^2 = 1 + k^2$

► $\frac{11k-9}{k^2+1} = 1 \Rightarrow 11k - 9 = k^2 + 1 \Rightarrow k^2 - 11k + 10 = 0 \Rightarrow (k - 1)(k - 10) = 0$

► $k = 1$ or $k = 10$



Q-99 The following bar graph shows the number of students who opted for three different specializations, Hindi, English, and Mathematics, during the given five years in a university.



What is the ratio of the number of students who opted for English in the years 2006 and 2008 together to the number of students who opted for Hindi in the years 2005 and 2009 together?

- (A) 11:5
- (B) 8:7
- (C) 9:11
- (D) 12:7

ANS- A

Given:

From the bar graph:

- Students who opted for **English**: • In 2006 = 25 • In 2008 = 30
- Total = $25 + 30 = 55$
- Students who opted for **Hindi**: • In 2005 = 5 • In 2009 = 20



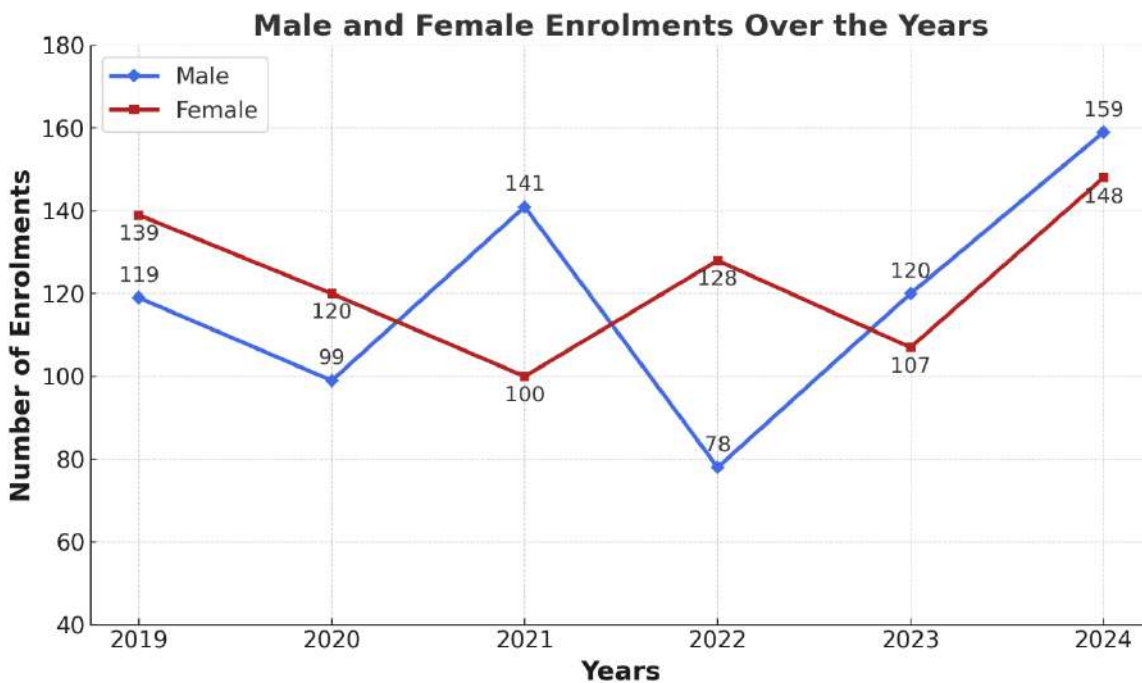
• Total = 5 + 20 = 25

Formula:

→ Required Ratio = English (2006 + 2008) : Hindi (2005 + 2009)

→ Ratio = 55: 25 = 11: 5

Q-100 Study the line graph and answer the question that follows.
The given line graph shows the number of enrolments of research scholars in a university from the year 2019 to 2024.



The enrolment of female research scholars in 2022 was approximately what percent of enrolment of male research scholars in the same year?

- (A) 164.10%
- (B) 165%
- (C) 125%
- (D) 126.5%

ANS- A





Given:

→ Female enrolments in 2022 = 128

→ Male enrolments in 2022 = 78

Formula:

→ Required percentage = $\frac{\text{Female}}{\text{Male}} \times 100$

Solution:

► Percentage = $\frac{128}{78} \times 100 \approx 164.10\%$

Answer: (A) 164.10%

