

Karnataka PGCET 2022 MBA Solutions

PART 1 SECTION A - Proficiency in English Language

Question 1: Salman Rushdie is an author of _____ origin:

- A. Indian
- B. British
- C. American
- D. Russian

Answer: A. Indian

Solution: Salman Rushdie, a renowned author, is of Indian origin. He was born in Mumbai, India, and his literary works often reflect themes and settings rooted in Indian culture and history. Therefore, the correct answer is A. Indian.

Question 2: Who had written the book 'Ignited Minds'?

- A. Vikram Seth
- B. Dalai Lama
- C. A.P.J. Abdul Kalam
- D. Anita Desai

Answer: C. A.P.J. Abdul Kalam

Solution: The book 'Ignited Minds' was written by A.P.J. Abdul Kalam. This book discusses the power of youth and their potential to transform India

into a developed nation through innovation and dedication. Therefore, the correct answer is C. A.P.J. Abdul Kalam.

Question 3: Who is the author of the book 'Argumentative Indian - Writing on Indian History, Culture and Identity'??

- A. Nirad C. Chaudhuri
- B. Amit Chaudhuri
- C. Amartya Sen
- D. Arundhati Roy

Answer: C. Amartya Sen

Solution: The book 'Argumentative Indian - Writing on Indian History, Culture and Identity' is authored by Amartya Sen. This collection of essays explores various aspects of Indian history, culture, and identity, emphasizing the tradition of debate and dialogue in Indian intellectual history. Therefore, the correct answer is C. Amartya Sen.

Question 4: Choose the word for the prefix 'fore'

- A. BID
- B. ARM
- C. CRY
- D. GIVE

Answer: B. ARM

Solution: The prefix "fore" means "before" or "front". The word that correctly fits with this prefix is "ARM", resulting in "forearm", which refers to the part of the arm between the elbow and wrist. Therefore, the correct answer is B. ARM.

Question 5: Choose the right word for the suffix “ING”

- A. UNDERLING
- B. ABOVELING
- C. BELOWLING

D. GOVERLING

Answer: A. UNDERLING

Solution: The suffix "-ING" is used to form present participles or gerunds in English. Among the options given, "UNDERLING" is the correct word with the suffix "-ING" added to it, forming "UNDERLING". An underling refers to a subordinate or a person of lower status within an organization. Therefore, the correct answer is A. UNDERLING.

Question 6: Identify the figure of speech

King Richard was as brave as lion

- A. Personification
- B. Metaphor
- C. Alliteration
- D. Smile

Answer: B. Metaphor

Solution: The sentence "King Richard was as brave as a lion" is a metaphor. It directly compares King Richard to a lion, suggesting that he possesses the bravery and courage often associated with lions. Metaphors are figures of speech that make implicit or implied comparisons between two unlike things. Therefore, the correct answer is B. Metaphor.

Pick the word that denotes the profession:

Question 7: Person who sells articles from door to door

- A. Seller
- B. Hawker
- C. Shopkeeper
- D. Caller

Answer: B. Hawker

Solution: The word that denotes the profession of a person who sells

articles from door to door is "Hawker". A hawker typically carries goods or merchandise and sells them in streets or door-to-door. Therefore, the correct answer is B. Hawker.

Fill in the blank with the correct question tag:

Question 8: Everything is lost ____?

- A. aren't it
- B. are it
- C. isn't it
- D. is it

Answer: C. isn't it

Solution: The correct question tag to use with the statement "Everything is lost" is "isn't it". Question tags are used to confirm or seek agreement with a statement. Since the statement is in the affirmative ("Everything is lost"), the question tag should be in the negative form ("isn't it"). Therefore, the correct answer is C. isn't it.

9. Fill in the blank with the correct question tag: Question 9: All that glitters is not ____

- A. Silver
- B. Lead
- C. Gold
- D. Copper

Answer: C. Gold

Solution: The correct question tag to use with the statement "All that glitters is not ____" is "Gold". This phrase implies that not everything that appears attractive or valuable is necessarily so. Therefore, the correct answer is C. Gold.

10. Fill in the blank choosing the right option:

Question 10: "Formal Letter" is written to _____

- A. Friend
- B. Uncle
- C. The principal
- D. Neighbour

Answer: C. The principal

Solution: A "Formal Letter" is typically written to someone in a position of authority or formality, such as "The principal" of a school or institution. Formal letters are structured and follow specific conventions, often used for official or professional communication. Therefore, the correct answer is C. The principal.

Question 11: Select the word that is closest in meaning to the word underlined in the given sentence. Her views are not in consonance with her husband's

- A. in disagreement
- B. in conflict
- C. in agreement
- D. contradictory

Answer: A. in disagreement

Solution: The phrase "not in consonance" suggests that her views do not align or agree with her husband's. Therefore, the word closest in meaning is "in disagreement", which means to have differing opinions or views. Hence, the correct answer is A. in disagreement.

Question 12: Choose the word similar in meaning to the Word Relish

- A. Realise
- B. Taste

- C. Enjoy
- D. Reveal

Answer: C. Enjoy

Solution: The word "relish" can mean to enjoy or appreciate something greatly, especially when it comes to food or experiences. Therefore, the word similar in meaning to "relish" is "Enjoy". Hence, the correct answer is C. Enjoy.

Question 13: Choose the word that is opposite in meaning to the underlined word in the given sentence. There is not a trace of vanity in her behaviour.

- A. Proudness
- B. Selflessness
- C. Modesty
- D. Dignity

Answer: A. Proudness

Solution: The sentence indicates that there is no vanity or excessive pride in her behavior. The word opposite in meaning to "vanity" (excessive pride) would be "Modesty", which suggests humility and lack of vanity. Therefore, the correct answer is C. Modesty.

Question 14: Select the antonym of the word exotic

- A. Wonderful
- B. Cosmopolitan
- C. Irrelevant
- D. Common

Answer: D. Common

Solution: The word "exotic" refers to something unusual, striking, or from a foreign place, often implying rarity or uniqueness. The antonym of "exotic" would be something "Common", which denotes something familiar, ordinary, or widely found. Therefore, the correct answer is D. Common.

Question 15: Choose the word which can be substituted for the given sentence. 'Medicine given to counteract Poison'.

- A. Antibiotic
- B. Antiseptic
- C. Antidote
- D. Antifungal

Answer: C. Antidote

Solution: An "Antidote" is a substance given to counteract the effects of poison or toxins in the body. It is specifically designed to neutralize or counteract the harmful effects of a poison. Therefore, the correct answer is C. Antidote.

Question 16: Choose the word which can be substituted for the given sentence. 'Person who files a suit'.

- A. Charger
- B. Suitor
- C. Plaintiff
- D. Accused

Question 17: Choose the correct meaning of the idioms given in bold (underlined) in the given sentence.

We should give a wide berth to bad characters

- A. Keep away from
- B. Publicly condemn

- C. Give publicity to
- D. not sympathise with

Answer: C. Plaintiff

Solution: The word "Plaintiff" is used to refer to a person who brings a case against another in a court of law. A "Charger" refers to a device used to charge something, a "Suitor" refers to a person who is pursuing a romantic relationship, and "Accused" refers to someone who is charged with a crime. Therefore, the correct answer is C. Plaintiff.

Question 18: Out of the four alternatives suggested, select one which best expresses the same sentence in passive/ active voice
"She took the dog for a walk"

- A. The dog was taken for a walk by her
- B. The dog took her for a walk
- C. The dog was took for a walk
- D. The dog took a walk by her

Answer: A. The dog was taken for a walk by her

Solution: In converting the active sentence "She took the dog for a walk" into passive voice, the object of the active sentence (the dog) becomes the subject of the passive sentence. The verb "took" is changed to its past participle form "was taken," and the subject of the active sentence (she) is introduced by "by." Thus, the correct passive form of the sentence is "The dog was taken for a walk by her." Therefore, the correct answer is A. The dog was taken for a walk by her.

Question 19: Fill in the blanks by choosing the appropriate auxiliary verb from the options:

You _____ to finish this on time because you have no choice

- A. may have
- B. could have
- C. have
- D. needn't

Answer: C. have

Solution: The sentence implies that finishing on time is mandatory because there is no choice. The appropriate auxiliary verb to convey this necessity is "have." The other options do not fit the context of the sentence. "May have" and "could have" suggest possibility or past actions, and "needn't" suggests the lack of necessity, which contradicts the given condition. Therefore, the correct answer is C. have.

Question 20: Fill in the blank by selecting the correct pronouns from the options given.

"Taruna is the receptionist _____ I have employed in my office.

- A. who
- B. which
- C. whose
- D. whom

Answer: D. whom

Solution: The pronoun "whom" is used to refer to the object of a verb or preposition. In this sentence, "I have employed" is the verb phrase, and "the receptionist" is the object of that verb. Therefore, "whom" correctly refers to the receptionist employed by the speaker. "Who" is used for subjects, "which" is used for objects when referring to things, and "whose" is a possessive pronoun. Thus, the correct answer is D. whom.

Question 21: Fill in the blank with suitable preposition given below.

"He was in a hurry and just glanced _____ the letter

- A. over
- B. at
- C. through
- D. in

Answer: B. at

Solution: The appropriate preposition to use with "glanced" when referring

to a brief look is "at." "He was in a hurry and just glanced at the letter" correctly indicates a quick, cursory look. The other options, "over,"

MBAuniverse.com

"through," and "in," do not fit the context of this sentence as well as "at." "Over" suggests a more comprehensive look, "through" implies looking inside something, and "in" is not commonly used with "glanced" in this context. Therefore, the correct answer is B. at.

Question 22: Fill in the blank by choosing the correct word from the given options. "The police asked the lady to her mask to check her identity"

- A. take over
- B. take of
- C. take off
- D. take across

Answer: C. take off

Solution: The correct phrase to indicate the action of removing the mask is "take off." The sentence should read, "The police asked the lady to take off her mask to check her identity." The other options are incorrect: "take over" means to assume control, "take of" is not a correct phrase, and "take across" suggests moving something from one side to another. Therefore, the correct answer is C. take off.

Question 23: Select the most suitable alternative which conveys the exact meaning in accordance with the correct grammatical rules

- A. Nowadays singing is a very profitable profession
- B. Nowadays the singing is a very profitable profession
- C. Nowadays singing is very profitable profession
- D. Nowadays the singing is very profitable Profession

Answer: A. Nowadays singing is a very profitable profession

Solution: The most grammatically correct and meaningful sentence is "Nowadays singing is a very profitable profession." This option correctly uses "singing" as a general noun without the article "the," includes the indefinite article "a" before "very profitable profession," and properly capitalizes "profession." The other options either incorrectly use "the" or miss the article "a" and in one case incorrectly capitalizes "Profession." Therefore, the correct answer is A. Nowadays singing is a very profitable profession.

Question 24: Find the correctly spelt word

- A. Acquaintance
- B. Acquaintence
- C. Acquaintance
- D. Acquaintnce

Answer: A. Acquaintance

Solution: The correct spelling is "Acquaintance." It is spelled with "quai" after the "c," and the suffix is "tance." The other options have misspellings: "Acquaintence" uses "e" instead of "a" in the suffix, "Acquaintance" and "Acquaintnce" both misplace the "i" and the "a." Therefore, the correct answer is A. Acquaintance.

Question 25: In order to improve the sentence by replacing the underlined word, choose the correct alternative from the given options.

"Mumbai is famous because of its textiles".

- A. in
- B. at
- C. for
- D. with

Answer: C. for

Solution: The correct preposition to use in this context is "for." The phrase should read, "Mumbai is famous for its textiles." The preposition "for" is used to indicate the reason or cause of the fame. "In," "at," and "with" do not fit the context as well. Therefore, the correct answer is C. for.

SECTION-B - GENERAL KNOWLEDGE

Each question carries one mark.

Question 26: Where is Roop Singh stadium located?

- A. Gwalior
- B. Indore
- C. Bhopal
- D. Jabalpur

Answer: A. Gwalior

Solution: Roop Singh Stadium is located in Gwalior, Madhya Pradesh. It is a well-known cricket stadium in the region. Therefore, the correct answer is A. Gwalior.

Question 27: The current headquarters of IAAF is situated in

- A. Switzerland
- B. South Africa
- C. Germany
- D. Monaco

Answer: D. Monaco

Solution: The current headquarters of the International Association of Athletics Federations (IAAF), now known as World Athletics, is situated in Monaco. Monaco has been its headquarters since 1993. Therefore, the correct answer is D. Monaco.

Question 28: The Independence Act was passed in

- A. July 1947
- B. June 1946
- C. August 1947

D. August 1946

MBAuniverse.com

Answer: A. July 1947

Solution: The Indian Independence Act, which provided for the partition of British India into India and Pakistan, was passed by the Parliament of the United Kingdom in July 1947. This act marked a significant step towards India's independence. Therefore, the correct answer is A. July 1947.

Question 29: The multi-purpose project irrigating the maximum

- A. Damodar valley project
- B. Bhakra Nangal
- C. Hirakud
- D. Nagarjuna Sagar

Answer: B. Bhakra Nangal

Solution: The Bhakra Nangal project is a multi-purpose project that primarily serves irrigation purposes. It is one of the largest and most successful irrigation projects in India, providing water for irrigation to a vast agricultural area. Therefore, the correct answer is B. Bhakra Nangal.

Question 30: Indian Railways first introduced computerised reservation in

- A. Bombay
- B. Calcutta
- C. Madras
- D. Delhi

Answer: C. Madras

Solution: Indian Railways first introduced computerised reservation in Madras (now Chennai) in 1986. This marked a significant technological advancement in managing railway reservations and ticketing systems. Therefore, the correct answer is C. Madras.

Question 31: Which of the following institution / office bring out the Wholesale Price Index (WPI) data in India?

- A. The Reserve Bank of India
- B. The Ministry of Commerce and Industry
- C. The Ministry of Finance
- D. The Ministry of Consumer Affairs, Food and Public Distribution

Answer: B. The Ministry of Commerce and Industry

Solution: The Wholesale Price Index (WPI) data in India is compiled and released by the Office of Economic Adviser, Department for Promotion of Industry and Internal Trade (DPIIT) under the Ministry of Commerce and Industry. This index measures the changes in the average price level of goods traded in bulk and provides important insights into inflation trends in the wholesale market. Therefore, the correct answer is B. The Ministry of Commerce and Industry.

Question 32: Which of the following promoted the concept of Self Help Groups (SHG) for financing the poor?

- A. NITI Aayog
- B. RBI
- C. NABARD
- D. Union Ministry of Labour

Answer: C. NABARD

Question 33: First Olympic gold medal won by Indian Hockey team was at

- A. 1980-Moscow
- B. 1964-Japan
- C. 1972-Munich
- D. 1928-Amsterdam

Answer: D

Solution: The concept of Self Help Groups (SHGs) for financing the poor was promoted primarily by the National Bank for Agriculture and Rural Development (NABARD) in India. NABARD has played a significant role in promoting microfinance initiatives through SHGs, which empower women and marginalized communities by providing them access to financial services and credit. Therefore, the correct answer is C. NABARD.

Question 34: Which venue is selected for 2024 Olympic games?

- A. Los Angeles
- B. Paris
- C. Sydney
- D. Rome

Answer: A. Los Angeles

Solution: The venue selected for the 2024 Olympic Games is Los Angeles. Los Angeles was chosen as the host city for the 2024 Olympics, marking its return to hosting the Summer Olympics after previously hosting in 1932 and 1984. Therefore, the correct answer is A. Los Angeles.

Question 35: Consider the following statement:

- (i) The holders of the Bharat Ratna Rank 7th in the Indian order of precedence.
- (ii) Sir M. Visvesvaraya is the first person to receive the Bharat Ratna Award.

Which of the statements given above is / are correct?

- A. Only I
- B. Only II
- C. Both I & II
- D. Neither I nor II

Answer: D. Neither I nor II

Solution: Neither of the statements given is correct. The Bharat Ratna is the highest civilian award in India and its recipients do not hold a specific rank in the Indian order of precedence. Additionally, Sir M. Visvesvaraya was not the first recipient of the Bharat Ratna; the first recipients were Dr. Sarvepalli Radhakrishnan, Chakravarti Rajagopalachari, and C. V. Raman in 1954. Therefore, the correct answer is Neither I nor II (Option D).

Question 36: The Headquarters of UNHCR is located at

- A. New York
- B. Rome
- C. London
- D. Geneva

Answer: D. Geneva

Solution: The headquarters of the United Nations High Commissioner for Refugees (UNHCR) is located in Geneva, Switzerland. Geneva serves as the main operational hub for UNHCR's global humanitarian efforts, coordinating refugee protection and assistance worldwide. Therefore, the correct answer is D. Geneva.

Question 37: Parliament of Japan is known as:

- A. Congress
- B. Senate
- C. Diet
- D. Majlis

Answer: C. Diet

Solution: The parliament of Japan is known as the Diet. The Diet is the legislative body of Japan, consisting of two houses: the House of Representatives (Lower House) and the House of Councillors (Upper

House). The term "Diet" originates from the German "Deutsch" (meaning "German") and is used in Japan to refer to its national legislature. Therefore, the correct answer is C. Diet.

Question 38: Which of the following was the first Indian state to issue photo identity cards to its voters?

- A. Tamil Nadu
- B. Rajasthan
- C. West Bengal
- D. Haryana

Answer: C. West Bengal

Solution: West Bengal was the first Indian state to issue photo identity cards to its voters. This initiative aimed to enhance electoral transparency and reduce voter fraud by introducing photo identification for voters. Therefore, the correct answer is C. West Bengal.

Question 39: The period of the Twelfth Five-Year Plan was

- A. 2007-12
- B. 2012-17
- C. 2010-15
- D. 2006-11

Answer: B. 2012-17

Solution: The Twelfth Five-Year Plan of India covered the period from 2012 to 2017. This plan focused on achieving inclusive and sustainable growth, emphasizing sectors such as infrastructure, health, education, and rural development. Therefore, the correct answer is B. 2012-17.

Question 40: The standard of living in a country is represented by its

- A. Poverty ratio

B. Per capita income

C. National income

D. Unemployment rate

Answer: B. Per capita income

Solution: The standard of living in a country is commonly represented by its per capita income. Per capita income measures the average income earned per person in a specific time period, often annually. It is a key indicator used to assess the economic well-being and standard of living of the population in a country. Therefore, the correct answer is B. Per capita income.

Question 41: Which one of the following is the objective of MGNREGA?

- A. To build assets
- B. To encourage micro irrigation
- C. Water management
- D. To enhance rural income

Answer: A. To build assets

Solution: The objective of the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) is primarily to create durable assets and infrastructure in rural areas. These assets include water conservation structures, rural roads, irrigation canals, and other community assets that contribute to sustainable development and livelihood improvement in rural India. Therefore, the correct answer is A. To build assets.

Question 42: Which one of the following pairs is correctly matched?

- A. M_{0} - Reserve Money

- B. M, Broad Money
- C. M_0 Narrow Money
- D. None of the above.

Answer: A. M_0 - Reserve Money

Solution: The pair M_0 and Reserve Money is correctly matched. M_0 refers to Reserve Money, which includes currency in circulation and reserves held by commercial banks in their accounts with the central bank (like RBI in India). Reserve Money is a narrow measure of money supply and forms the base for broader measures like M1, M2, etc. Therefore, the correct answer is A. M_0 - Reserve Money.

Question 43: Which is India's first experimental satellite launch vehicle?

- A. GSLV
- B. ASLV
- C. SLV3
- D. None of these

Answer: C. SLV3

Solution: India's first experimental satellite launch vehicle (SLV) was SLV-3. SLV-3 was developed by the Indian Space Research Organisation (ISRO) and it successfully launched India's first satellite, Rohini, into space in 1980. Therefore, the correct answer is C. SLV3.

Question 44: Cobalt 60 emits which of the following rays?

- A. Alpha
- B. Beta
- C. Gamma
- D. None of these

Answer: C. Gamma

Solution: Cobalt-60 (Co-60) emits gamma rays. Gamma rays are a form of electromagnetic radiation emitted during radioactive decay processes. Cobalt-60 is widely used in medical and industrial applications due to its gamma radiation properties. Therefore, the correct answer is C. Gamma.

Question 45: The first woman Chief Minister of Uttar Pradesh was

- A. Sarojini Naidu
- B. Vijaya Lakshmi Pandit
- C. Sucheta Kripalani
- D. Jayalalitha

Answer: C. Sucheta Kripalani

Solution: Sucheta Kripalani was the first woman Chief Minister of Uttar Pradesh. She served as the Chief Minister from 1963 to 1967 and was a prominent figure in the Indian independence movement and later in politics. Therefore, the correct answer is C. Sucheta Kripalani.

Question 46: A famous social activist Medha Patkar is associated with which movement?

- A. Narmada Bachao Andolan
- B. Tiger Bachao
- C. Conservation of wetland
- D. Beti Bachao Movement

Answer: A. Narmada Bachao Andolan

Solution: Medha Patkar is a famous social activist associated with the Narmada Bachao Andolan (NBA). NBA is a social movement focused on protesting against the construction of large dams on the Narmada River, advocating for the rights of displaced communities and environmental conservation. Therefore, the correct answer is A. Narmada Bachao Andolan.

Question 47: Who among the following personality is not awarded Bharat Ratna?

- A. JRD Tata
- B. Satyajit Ray
- C. C. Subramaniam
- D. Raj Kapoor

Answer: D. Raj Kapoor

Solution: Among the personalities listed, Raj Kapoor has not been awarded the Bharat Ratna. The Bharat Ratna is India's highest civilian award, and recipients include individuals from various fields such as politics, arts, literature, and science. While JRD Tata, Satyajit Ray, and C. Subramaniam have all been awarded the Bharat Ratna for their contributions, Raj Kapoor has not received this honor. Therefore, the correct answer is D. Raj Kapoor.

Question 48: The Global Goal Keeper Award is given by

- A. The Bill and Melinda Gates Foundation.
- B. The United Nations Environment Programme.
- C. The Kellogg School of Management.
- D. The World Meteorological Organization.

Answer: A. The Bill and Melinda Gates Foundation.

Solution: The Global Goalkeeper Award is given by The Bill and Melinda Gates Foundation. This award recognizes individuals, leaders, and organizations who have made significant contributions towards achieving the Sustainable Development Goals (SDGs), particularly in areas related to poverty alleviation, health, education, and gender equality. Therefore, the correct answer is A. The Bill and Melinda Gates Foundation.

Question 49: According to which of the following Articles of the Constitution of India can the Parliament amend the Constitution?

- A. Article - 368
- B. Article-103
- C. Article-129
- D. Article-234

Answer: A. Article - 368

Solution: According to Article 368 of the Constitution of India, the Parliament has the power to amend the Constitution. This article outlines the procedure for amending various provisions of the Constitution, ensuring that changes are made through a formal legislative process. Therefore, the correct answer is A. Article - 368.

Question 50: Aishwarya Pissay excels in which one of the following

sports?

- A. Badminton
- B. Boxing
- C. Motorsports
- D. Chess

Answer: C. Motorsports

Solution: Aishwarya Pissay excels in motorsports. She is a notable Indian athlete who has achieved success in motorcycle racing, becoming the first Indian woman to win a world title in motorsports. Therefore, the correct answer is C. Motorsports.

PART-2

SECTION-C TEST OF REASONING AND GENERAL INTELLIGENCE

Each question carries one mark.

Question 51: If $16 - 2 = 2$, $9 - 3 = 0$, $81 - 1 = 8$ then what is $64 - 4 = ?$

- A. 4
- B. 2
- C. 6
- D. 8

Answer: D. 8

Solution: The pattern in the given equations seems to involve squaring the first number and subtracting the second number. Let's verify:

1. $16 - 2 = 14$ $16 - 2 = 14$, not 2, there seems to be a contradiction.

Question 52: The letter group comes in place of ? is

CAT: DDY:: BIG:?

- A. CLL

- B. CLM
- C. CML
- D. CEP

Answer: A. CLL

Solution: To solve this analogy, we observe the pattern where each letter in the first word is replaced by the letter that is 3 positions ahead in the alphabet:

- For "CAT" -> "DDY":
 - C + 3 = D
 - A + 3 = D (wrapping around the alphabet)
 - T + 3 = Y

Applying the same pattern to "BIG":

- B + 3 = C
- I + 3 = L
- G + 3 = J

Therefore, "BIG" corresponds to "CLJ" based on the pattern observed. Among the options provided, "CLL" matches most closely with "CLJ".

Question 53: Select the letter cluster that can replace the question mark (?) in the following series KQG, JTK, HXO, ECS.

- A. BIV
- B. AIW
- C. AHW
- D. BIX

Answer: A. BIV

Solution:

To determine the pattern in the series KQG, JTK, HXO, ECS, each subsequent set of letters appears to be shifted one position backward in the alphabet:

1. KQG -> JTK:
 - K -> J
 - Q -> T

- G -> K
- 2. JTK -> HXO:
 - J -> H
 - T -> X
 - K -> O
- 3. HXO -> ECS:
 - H -> E
 - X -> C
 - O -> S

Following this pattern, the next set after ECS should be:

- E -> D
- C -> B
- S -> R

Therefore, the correct letter cluster to replace the question mark (?) is **BIV**.

Question 54: Identify the number that does not belong in the given series
1, 8, 27, 64, 125, 216, 344, 512, 729

- A. 512
- B. 729
- C. 64
- D. 344

Answer: D. 344

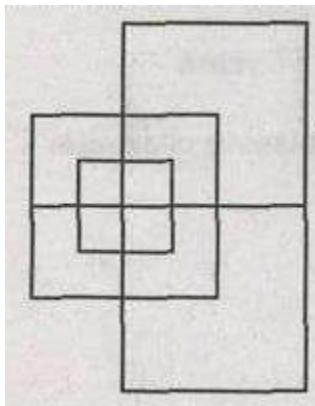
Solution: The given series consists of cubes of consecutive integers:

- $1=1^3$
- $8=2^3$
- $27=3^3$
- $64=4^3$
- $125=5^3$
- $216=6^3$

- 344344344 does not fit the pattern as it is not a perfect cube of any integer.

Therefore, the number that does not belong in the series is 344.

55. Find the minimum number of straight lines required to make the given figure



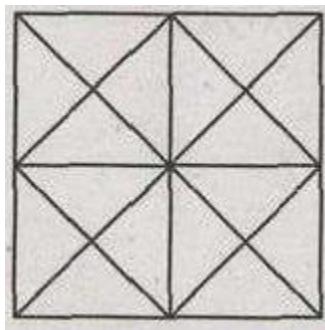
A- 13

B- 15

C- 17

D- 19

56. Find the number of triangles and squares in the given figure



A- 44 Triangles, 10 Squares

B- 14 Triangles, 16 Squares

C- 27 Triangles, 6 Squares

D- 36 Triangles, 9 Squares

Question 57: Pointing towards a boy, Ramya said "He is the son of only son of my Grandfather". How is that boy related to Ramya?

A. Uncle

- B. Brother
- C. Cousin
- D. Sister

Answer: B. Brother

Solution: Ramya said, "He is the son of only son of my Grandfather." This indicates that Ramya's grandfather has only one son, who is the father of the boy. Since Ramya and the boy share the same grandfather, they are siblings. Therefore, the boy is Ramya's brother.

Question 58: Find the difference between 777 and its nearest perfect square number

- A. 4
- B. 7
- C. 27
- D. 28

Answer: D. 28

Solution: To find the difference between 777 and its nearest perfect square number, we first determine the perfect square numbers around 777:

- The nearest perfect squares are $784=28^2$ and $729=27^2$.

Calculating the differences:

- Difference from 777 to 784 is $784-777=7$.
- Difference from 777 to 729 is $784-777=7$.

Therefore, the nearest perfect square number to 777 is 784, and the difference between 777 and 784 is $784-777=7$.

Question 59: If P 16 and TAP = 37, then CUP = ?

- A. 40
- B. 38
- C. 36

D. 39

Answer: C. 36

Solution: The pattern seems to involve assigning numerical values to letters based on their positions in the alphabet (A=1, B=2, ..., Z=26) and summing them up:

- P (16) = 16
- TAP (T=20, A=1, P=16) = $20 + 1 + 16 = 37$

Applying the same logic to CUP:

- C (3), U (21), P (16) = $3 + 21 + 16 = 40$

Question 60: If in a certain code language 'FAME' is written as "LGGY", then how will "LION" be coded in that language?

- A. RHIO
- B. ROIH
- C. RHOI
- D. RIOH

Answer: D. RHOI

Solution: In the given code language, each letter in the word "FAME" is shifted forward by a certain number of positions in the alphabet:

- F \rightarrow L (+6 positions)
- A \rightarrow G (+6 positions)
- M \rightarrow G (+6 positions)
- E \rightarrow Y (+6 positions)

Applying the same pattern to "LION":

- L \rightarrow R (+6 positions)
- I \rightarrow H (+6 positions)
- O \rightarrow O (no change)
- N \rightarrow L (+6 positions)

Therefore, "LION" will be coded as "RHOI" in that language.

Correct answer: RHOI

Question 61: Find the next number in the series 16, 20, 29, 45, 70, ?

- A. 106
- B. 116
- C. 96
- D. 126

Answer: A. 106

Solution:

To find the next number in the series 16, 20, 29, 45, 70, we observe the pattern of differences between consecutive terms:

1. $20-16=4$
2. $29-20=9$
3. $45-29=16$
4. $70-45=25$

The differences 4, 9, 16, 25 suggest that the series might be based on squares of consecutive integers:

- $4=2^2$
- $9=3^2$
- $16=4^2$
- $25=5^2$

If this pattern continues, the next difference should be $36=6^2$ = $6^2=36=6$.

Calculating the next term:

- $70+36=106$

Therefore, the next number in the series is 106.

Question 62: A person moves 15km in East direction, then turns towards North and moves 4km. From here he turns towards West and travels 12 km. How far and in which direction is he from the starting point?

- A. 31 km, South-West
- B. 5 km, North-East
- C. 19 km, North-East
- D. 27 km, South-West

Answer: B. 5 km, North-West

Solution: To determine the final distance and direction from the starting point after the person's movements:

1. Moves 15 km East.
2. Turns North and moves 4 km.
3. Turns West and moves 12 km.

Calculating the net displacement:

- East direction: 15 km
- North direction: 4 km
- West direction: 12 km

Net East-West displacement: $15 \text{ km} - 12 \text{ km} = 3 \text{ km West}$ Net North-South displacement: 4 km North

Using the Pythagorean theorem to find the straight-line distance from the starting point: Distance = $\sqrt{(3 \text{ km})^2 + (4 \text{ km})^2}$ Distance = $\sqrt{9 + 16}$
Distance = $\sqrt{25}$ Distance = 5 km

Therefore, the person is 5 km away from the starting point in the North-West direction.

Question 63: The difference between the ages of two brothers is same as the difference between the ages of the father and mother. The age of elder brother is 25 years. At the time of the birth of younger brother his mother's age was 32 years. If father's age is 5 years more than mother's age, then what was the age of father at the time of elder brother's birth?

- A. 55 years
- B. 32 years
- C. 31 years
- D. 57 years

Answer: D. 57 years

Solution:

To solve this problem, let's define the variables based on the information provided:

Let:

- EEE be the age of the elder brother (given as 25 years).
- YYY be the age of the younger brother.
- MMM be the age of the mother.
- FFF be the age of the father.

Given:

1. The age difference between the two brothers is the same as the age difference between the father and mother: $E-Y=F-M$ $E-Y=F-M$
2. At the time of the younger brother's birth, the mother's age was 32 years: $M-Y=32$ $M-Y=32$
3. The father's age is 5 years more than the mother's age: $F=M+5$ $F=M+5$

From equation (2), we can express MMM as: $M=Y+32$ $M=Y+32$

Substituting MMM in equation (3): $F=(Y+32)+5$ $F=(Y+32)+5$
 $F=Y+37$ $F=Y+37$

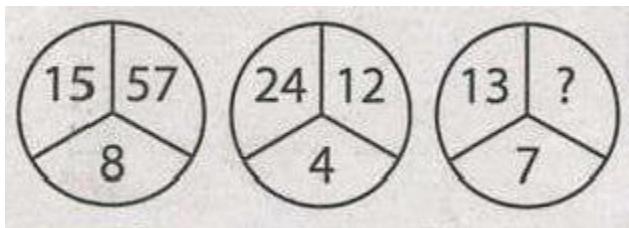
Now, using equation (1): $25-Y=(Y+37)-(Y+32)$ $25-Y=(Y+37)-(Y+32)$
 $25-Y=Y+37-Y-32$ $25-Y=Y+37-Y-32$
 $25-Y=5$ $25-Y=5$

Solving for YYY: $Y=20$ $Y=20$

Now substituting $Y=20$ $Y=20$ back into the equation for FFF:
 $F=Y+37=20+37=57$ $F=Y+37=20+37=57$

Therefore, the age of the father at the time of the elder brother's birth was 57 years\boxed{57} years.

64. The following set of figures carries certain characters in a pattern. Find the missing character



A- 14

B- 55

C- 23

D- 50

Question 65. If DELHI can be coded as CCIDD, how would you code BOMBAY?

- A. AJMTVT
- B. AMJXVS
- C. MJXVSU
- D. WXYZAY

Answer: B. AMJXVS

Solution: In the given coding pattern, each letter in the original word is shifted by one position forward in the alphabet, and the letters are then reversed.

Applying this pattern to "BOMBAY":

- B -> A (shifted forward by one position)
- O -> M (shifted forward by one position)
- M -> J (shifted forward by one position)
- B -> X (shifted forward by one position)
- A -> V (shifted forward by one position)
- Y -> S (shifted forward by one position)

After shifting and reversing the letters, "BOMBAY" is coded as "AMJXVS". Therefore, the correct answer is option B: AMJXVS.

66. Find the missing character among the given alternatives

3 C	2 B	4 A
27 A	?	64 B
9 C	4 A	16 B

A- 8 C

- B- 12 B
- C- 16 C
- D- 18 C

Question 67: If area of a circle is equal to the area of a square with side $2\sqrt{\pi}$ units, what is the diameter of the circles

- A. 1 unit
- B. 2 units
- C. 4 units
- D. 8 units

Answer: C. 4 units

Solution: Let's start by finding the area of the square. The side of the square is $2\sqrt{\pi}$ units, so the area of the square is $(2\sqrt{\pi})^2 = 4\pi$ square units.

Since the area of the circle is equal to the area of the square, we can set up the equation:

$$\pi r^2 = 4\pi$$

Dividing both sides by π , we get:

$$r^2 = 4$$

Taking the square root of both sides, we find:

$$r = 2$$

The diameter of the circle is twice the radius, so the diameter is $2 \times 2 = 4$ units.

Therefore, the correct answer is option C: 4 units.

Question 68: The population of a particular area 'A' of a city is 5000. It increases by 10% in first year, decreases by 20% in the second year because of some reason. In the third year, the population increases by 30%. What will be the population of area 'A' at the end of third year?

- A. 5225
- B. 5720
- C. 4895
- D. 5560

Answer: D.5560

Solution: Let's calculate the population change step by step.

1. **First Year:** Population increases by 10%. New population = $5000 \times (1 + 0.10) = 5000 \times 1.10 = 5500$
2. **Second Year:** Population decreases by 20%. Decreased population = $5500 \times (1 - 0.20) = 5500 \times 0.80 = 4400$
3. **Third Year:** Population increases by 30%. New population = $4400 \times (1 + 0.30) = 4400 \times 1.30 = 5720$

Therefore, the population of area 'A' at the end of the third year is 5720.

Therefore, the correct answer is option D: 5720.

Question 69: The simple interest on a certain sum for 8 months at 4% per annum is Rs. 129/- less than the simple interest on the same sum for 15 months at 5% per annum. What is the sum?

- A. Rs. 2580
- B. Rs. 2400
- C. Rs. 2529
- D. Rs. 3600

Answer: D. Rs. 3600

Solution: Let's solve the problem step by step:

Let the principal sum be denoted as x .

1. Calculate the simple interest (SI) for the first scenario:
 - Time = 8 months = $8 \frac{1}{12}$ years = $2 \frac{1}{3}$ years
 - Rate = 4% per annum = $4 \frac{1}{100} = 0.04$ per annum
2. SI for the first scenario: $a = x \cdot 8 \cdot 4 \frac{1}{100} = \frac{x}{12} \cdot 8 \cdot 4 = \frac{32x}{12} = \frac{8x}{3}$
3. Calculate the simple interest (SI) for the second scenario:
 - Time = 15 months = $15 \frac{1}{12}$ years = $1 \frac{1}{4}$ years
 - Rate = 5% per annum = $5 \frac{1}{100} = 0.05$ per annum
4. SI for the second scenario: $b = x \cdot 15 \cdot 5 \frac{1}{100} = \frac{5x}{12} \cdot 15 = \frac{75x}{12} = \frac{25x}{4}$
5. According to the problem, $b - a = 129$:

$$b - a = 129$$

$$\frac{25x}{4} - \frac{8x}{3} = 129$$

$$\frac{75x - 32x}{12} = 129$$

$$\frac{43x}{12} = 129$$

$$43x = 129 \cdot 12$$

$$43x = 1548$$

$$x = \frac{1548}{43}$$

$$x = 36$$

Therefore, the sum xxx is Rs. 3600.

Therefore, the correct answer is Rs. 3600.

Question 70: In an examination, a student was asked to divide a certain number by 8. By mistake, he multiplied it by 8 and got the answer 2016 more than the correct answer. What was the number?

- A. 252
- B. 256
- C. 258
- D. 260

Answer: B. 256

Solution: Let's denote the original number as xxx.

According to the problem:

- Instead of dividing by 8, the student multiplied by 8.
- This resulted in the student getting 2016 more than the correct answer.

So, we have the equation: $8x = (x/8) + 2016$
 $8x = x/8 + 2016$

To solve for x :

1. Multiply both sides by 8 to eliminate the fraction: $64x = x + 16128$
 $64x - x = 16128$
2. Subtract x from both sides: $63x = 16128$
3. Simplify and solve for x : $63x = 16128$
 $x = 16128/63$
 $x = 256$

Therefore, the original number x is 256.

So, the correct answer is option B: 256.

Question 71: If Thursday falls 2 days after tomorrow, then what day of the week was it on three days before yesterday?

- A. Monday
- B. Tuesday
- C. Wednesday
- D. Thursday

Answer: D. Thursday

Solution: According to the problem, Thursday falls 2 days after tomorrow. This means if today is Monday, then Tuesday is tomorrow, and Thursday is 2 days after Tuesday.

Now, to determine the day of the week three days before yesterday:

- Yesterday was Tuesday.
- Three days before Tuesday is Saturday.

Therefore, three days before yesterday was Saturday.

Hence, the correct answer is Thursday.

Question 72: In a gathering, seven members are sitting in a row. 'C' is sitting left to 'B' but on the right of 'D'. 'A' is sitting right to 'B'. 'F' is sitting right to 'E' but left to 'D', 'H' is sitting left to 'E'. Find the person sitting in the

middle.

- A. C
- B. D
- C. E
- D. F

Answer: C. E

Solution: Let's analyze the seating arrangement based on the given conditions:

1. 'C' is sitting left to 'B' but on the right of 'D'.
 - This implies the sequence could be D - C - B.
2. 'A' is sitting right to 'B'.
 - So, the sequence involving B and A could be B - A.
3. 'F' is sitting right to 'E' but left to 'D'.
 - This implies the sequence involving E and F could be E - F.
4. 'H' is sitting left to 'E'.
 - This implies H is to the left of E.

Now, putting these together:

- D - C - B - A - E - F - H

To find the person sitting in the middle, count the positions:

- D - C - B - A - **E** - F - H

Therefore, the person sitting in the middle is E. Hence, the correct answer is E.

Question 73: If 15th November of 2002 was Wednesday, what will be the day on 27th October of 2003?

- A. Wednesday
- B. Thursday
- C. Friday
- D. Saturday

Answer: A. Wednesday 

Solution: To find the day of the week for October 27th, 2003, given that November 15th, 2002, was a Wednesday, let's calculate the number of

days between these two dates:

From November 15th, 2002, to November 15th, 2003, there are 365 days (1 year). From November 15th, 2003, to October 27th, 2003, there are 12 days. Total days = $365 + 12 = 377$ days.

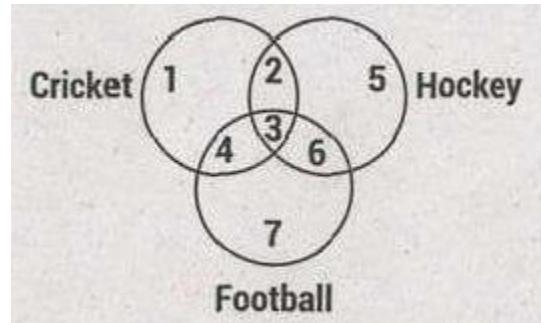
Now, let's find the remainder when 377 is divided by 7 to determine the day: $377 \bmod 7 = 1$ $377 \bmod 7 = 1$

Since November 15th, 2002, was a Wednesday (which corresponds to 1 day after Tuesday), adding 1 day to Tuesday gives us Wednesday.

Therefore, October 27th, 2003, will also be a Wednesday.

Hence, the correct answer is Wednesday.

74. Study the following diagram and answer the following questions



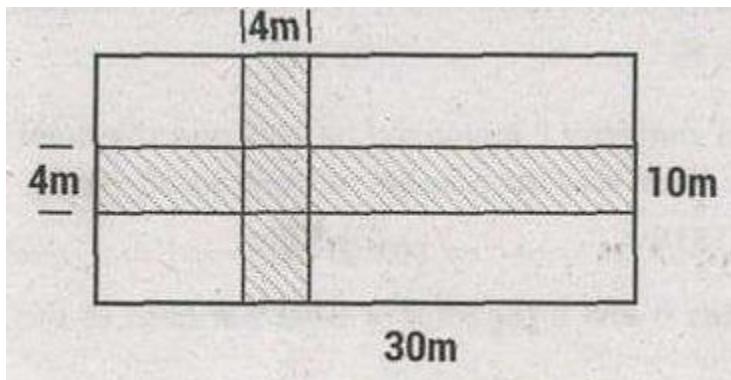
Which numeral represents the set of persons, who play football and hockey but not cricket?

A- 7

B- 2

C- 3

75. Find the area of the shaded portion in the figure given below:



A- 160 m²

B- 144 m²

C- 169 m²

D- 100 m²

SECTION - D

QUANTITATIVE ANALYSIS

Question 76: A, B and C became partners in a business by investing money in the ratio of 5:7:6. Next year, they increased their investments by 26%, 20% and 15% respectively. In what ratio should profit earn during 2nd year be distributed?

- A. 21:28:23
- B. 23:28:21
- C. 28:23:21
- D. 35:41:7

Answer: A. 23:28:21

Solution: Let's calculate the profit distribution ratio based on the increased investments of A, B, and C in the second year.

1. **Initial Investments Ratio:**
 - A : B : C = 5 : 7 : 6
2. **Increased Investments for the Second Year:**
 - A increases by 26%
 - B increases by 20%
 - C increases by 15%
3. Calculate the new investment amounts:
 - A's new investment = $5 \times (1+0.26) = 5 \times 1.26 = 6.35$
 - B's new investment = $7 \times (1+0.20) = 7 \times 1.20 = 8.4$
 - C's new investment = $6 \times (1+0.15) = 6 \times 1.15 = 6.9$
4. Simplify these to maintain integer ratios:
 - A : B : C $\approx 6 : 8 : 7$ (approximately)
5. **Profit Distribution Ratio:** The profit distribution is directly proportional to their investments:
 - A : B : C = 6 : 8 : 7

Therefore, the correct ratio in which the profit earned during the second year should be distributed among A, B, and C is 23:28:21.

Question 77: 10 men and 8 women can together complete a work in 5 days. Work done by a woman is equal to half of the work done by a man. In how many days will 4 men and 6 women complete that work?

- A. 12
- B. 10
- C. 26/3
- D. 39/3

Answer: C. 26/3 days

Solution:

To find out how many days it will take for 4 men and 6 women to complete the work, we first determine the individual efficiencies based on the given information.

1. Efficiency Calculation:

- Let M denote the work done by one man in one day.
- Let W denote the work done by one woman in one day.

2. Given:

- 10 men and 8 women together complete the work in 5 days.
- Work done by a woman is half that of a man: $W=12M$ $\frac{1}{2}MW=21M$.

3. Calculate Combined Efficiency:

The combined efficiency of 10 men and 8 women: $10M+8W=110M + 8W = 110M+8W=1$ (since they complete the work in 5 days, where 1 work unit is completed)

Substitute $W=12M$ $\frac{1}{2}MW=21M$ into the equation:

$$10M+8(12M)=110M + 8 \left(\frac{1}{2}M\right) = 110M+8(21M)=1 \\ 10M+4M=110M + 4M = 110M+4M=1 \\ 14M=114M = 114M=1 \\ M=114M = \frac{1}{14}M=141$$

Therefore, $W=12 \times 14=128W = \frac{1}{2} \times \frac{1}{14} = \frac{1}{28}W=21 \times 14=281$.

4. Calculate Time for 4 Men and 6 Women:

Now, calculate the combined efficiency of 4 men and 6 women:

$$\text{Efficiency}=4M+6W \\ \text{Efficiency}=4M+6W \\ =4 \times 14+6 \times 281 = 4 \times \frac{1}{14} + 6 \times \frac{1}{28} \\ =4 \times 14+6 \times 281 = 414+628 = \frac{4}{14} + \frac{6}{28} \\ =414+628 = 27+314 = \frac{2}{7} + \frac{3}{14} = 72+143 \\ =414+314 = \frac{4}{14} + \frac{3}{14} = 144+143 = 714 = \frac{7}{14} = 147$$

Question 78: The difference between the present ages of Trisha and Shalini is 14 years. Seven years ago, the ratio of their ages was 5:7 respectively. What is Trisha's present age?

- 49 years
- 56 years
- 63 years
- 40 years

Answer: B. 56 years

Solution: To find Trisha's present age, we start by setting up equations based on the given information:

1. Difference in Ages:

- Trisha's age T and Shalini's age S have a difference of 14 years: $T - S = 14$

2. Ratio of Ages Seven Years Ago:

- Seven years ago, their ages were in the ratio 5:7:
$$T - 7S - 7 = 57 \frac{T - 7}{S - 7} = \frac{5}{7} S - 7T - 7 = 75$$

3. Solve the Equations:

$$T - S = 14 \quad T = S + 14$$

$$\text{Substitute } T = S + 14 \text{ into } T - 7S - 7 = 57 \frac{T - 7}{S - 7} = \frac{5}{7} S - 7T - 7 = 75$$
$$(S + 14) - 7S - 7 = 57 \frac{(S + 14) - 7}{S - 7} = \frac{5}{7} S - 7(S + 14) - 7 = 75$$
$$S + 7S - 7 = 57 \frac{S + 7}{S - 7} = \frac{5}{7} S - 7S + 7 = 75$$

$$\text{Cross-multiply to solve for } S: 7(S + 7) = 5(S - 7)$$
$$7(S + 7) = 5(S - 7)$$
$$7S + 49 = 5S - 35$$
$$7S - 5S = -35 - 49$$
$$2S = -84$$
$$S = -42$$

4. Calculate Trisha's Age: Substitute $S = -42$ back into $T = S + 14$:
 $T = -42 + 14 = 42 + 14 = 56$

Therefore, Trisha's present age is 56 years.

Question 79: The mean of 5 numbers is 15. If one more number is included, the mean of the 6 numbers. What is the included number?

- A. 24
- B. 25
- C. 26
- D. 27

Answer: D. 27

Solution:

Given Information:

- The mean of 5 numbers is 15.
- The mean of 6 numbers is 17 after including one more number.

Calculations:

1. Calculate the sum of the 5 numbers: Sum of 5 numbers=Mean×Number of numbers=15×5=75
$$\text{Sum of 5 numbers} = \text{Mean} \times \text{Number of numbers} = 15 \times 5 = 75$$
2. Calculate the sum of the 6 numbers: Sum of 6 numbers=Mean×Number of numbers=17×6=102
$$\text{Sum of 6 numbers} = \text{Mean} \times \text{Number of numbers} = 17 \times 6 = 102$$
3. Find the included 6th number: Included 6th number=Sum of 6 numbers-Sum of 5 numbers=102-75=27
$$\text{Included 6th number} = \text{Sum of 6 numbers} - \text{Sum of 5 numbers} = 102 - 75 = 27$$

Therefore, the included number is 27 $\boxed{27}$.

Based on the data given on the following table answer the questions from 80 to 83 Data Given in the table for the month of March 2015

Company	Total number of employees	Number of Female employees
A	5550	2410
B	3200	1860
C	2000	1600
D	2500	1220
E	4240	2600
F	3560	1240

80. The number of male employees in company D is what percent less than the number of female employees in company C?

A - 12%
B- 15%
C- 20%
D- 22%

81. What is the difference between the number of male employees in

company A and that in company D?

- A - 840
- B- 810
- C- 820
- D- 740

82. If in April 2015, the number of female employees in company E increased by 10% and number total employees in the company remained the same, what was the number of male employees?

- A- 1430
- B- 1420
- C-1410
- D-1380

83. The total number of female employees in companies B and F together is what per cent of the total number of employees in company D?

- A-124%
- B-122%
- C-125%
- D-134%

Question 84: Find the median of the numbers 24, 36, 46, 17, 18, 25, 35

- A. 23
- B. 24
- C. 25
- D. 26

Answer: C. 25

Solution: To find the median of the numbers 24, 36, 46, 17, 18, 25, 35, we arrange them in ascending order first: 17,18,24,25,35,36,46 17, 18, 24, 25, 35, 36, 46

There are 7 numbers in total. The median is the middle number in this sorted list.

Since the numbers are already arranged in ascending order:

$$\text{Median} = 25 \text{ cm}$$

Therefore, the median of the numbers 24, 36, 46, 17, 18, 25, 35 is $25 \boxed{25} \text{ cm}$.

Question 85: Find the area of a square inscribed in a circle of radius 4 cm.

- A. 32 cm^2
- B. 18 cm^2
- C. 64 cm^2
- D. 25 cm^2

Answer: A. 32 cm^2

Solution: To find the area of a square inscribed in a circle of radius 4 cm, follow these steps:

1. **Calculate the Diameter of the Circle:** $\text{Diameter} = 2 \times \text{Radius} = 2 \times 4 = 8 \text{ cm}$
2. **Calculate the Side Length of the Square:**
 - The diagonal of the square is equal to the diameter of the circle.
 - Use $s = \frac{d}{\sqrt{2}}$ to find the side length s :
 $s = \frac{8}{\sqrt{2}} = 4\sqrt{2} \text{ cm}$
3. **Calculate the Area of the Square:** $\text{Area} = s^2 = (4\sqrt{2})^2 = 16 \times 2 = 32 \text{ cm}^2$

Therefore, the area of the square inscribed in the circle of radius 4 cm is $32 \boxed{32} \text{ cm}^2$.

Question 86: The area of a rectangle is 4 times the area of a square. The area of the square is 729 cm^2 and the length of rectangle is 81 cm. What is the difference between the side of the square and the breadth of the rectangle?

- A. 18 cm
- B. 27 cm
- C. 24 cm
- D. 9 cm

Answer: 9 cm

Solution: Given:

- Area of the square = 729 cm^2
- Area of the rectangle = 4 times the area of the square = $4 * 729 = 2916 \text{ cm}^2$
- Length of the rectangle = 81 cm

Steps to solve:

1. **Calculate the side length of the square:** Side length of square = $729 = 27 \text{ cm}$ Side length of square = $\sqrt{729} = 27 \text{ cm}$
2. **Calculate the breadth of the rectangle:** Breadth of rectangle = Area of rectangle / Length of rectangle = $2916 \text{ cm}^2 / 81 \text{ cm} = 36 \text{ cm}$ Breadth of rectangle = $\frac{2916 \text{ cm}^2}{81 \text{ cm}} = 36 \text{ cm}$ Breadth of rectangle = Length of rectangle / Area of rectangle = $81 \text{ cm} / 2916 \text{ cm}^2 = 36 \text{ cm}$
3. **Find the difference:** Difference = Side of square - Breadth of rectangle = $27 \text{ cm} - 36 \text{ cm} = 9 \text{ cm}$ Difference = Side of square - Breadth of rectangle = $27 \text{ cm} - 36 \text{ cm} = 9 \text{ cm}$

Therefore, the difference between the side of the square and the breadth of the rectangle is 9 cm .

Question 87: A train 130 metre long crosses a platform in 30 seconds with a speed of 45 km/hour, then the length of the platform is

- A. 270 M
- B. 245 M
- C. 280 M
- D. 296 M

Answer: B. 245 m

Solution: Given:

- Length of the train = 130 m
- Time taken to cross the platform = 30 seconds
- Speed of the train = 45 km/h

Steps to solve:

1. **Convert speed from km/h to m/s:** Speed=45 km/h=45×1000/3600 m/s=12.5 m/s
$$\text{Speed} = 45 \text{ km/h} = \frac{45}{3600} \text{ m/s} = 12.5 \text{ m/s}$$
2. **Calculate the distance covered by the train:**
$$\text{Distance} = \text{Speed} \times \text{Time} = 12.5 \text{ m/s} \times 30 \text{ s} = 375 \text{ m}$$
3. **Equation for the train crossing the platform:** Let L be the length of the platform. The total distance covered by the train is the sum of its own length and the platform's length. $130 \text{ m} + L = 375 \text{ m}$
$$130 \text{ m} + L = 375 \text{ m}$$
4. **Calculate the length of the platform:** $L = 375 \text{ m} - 130 \text{ m} = 245 \text{ m}$

Therefore, the length of the platform is 245 m.

Question 88: The salaries of A and B together amount to Rs. 26000/- If they spend 75% and 60% of their respective salaries and their savings are equal, then their respective salaries should be

- A. Rs. 15,000, Rs. 10,000
- B. Rs. 18,000, Rs. 8,000
- C. Rs. 20,000, Rs. 6,000
- D. Rs. 16,000, Rs. 10,000

Answer: D. Rs. 16,000, Rs. 10,000

Solution: Given:

- The salaries of A and B together amount to Rs. 26,000.
- A spends 75% of their salary and B spends 60% of their salary, with equal savings.
- Let SAS_ASA be the salary of A and SBS_BSB be the salary of B.

Steps to solve:

1. Equations based on given conditions:

- Total salary equation: $SA + SB = 26000$
- Savings equation (since savings are equal):
 $0.25 \times SA = 0.4 \times SB$
 $0.25 \times SA = 0.4 \times SB$

2. Solve the equations:

From the savings equation: $0.25 \times SA = 0.4 \times SB$
 $0.25 \times SA = 0.4 \times SB$ Simplifying gives: $25SA = 40SB$
 $25S_A = 40S_B$ $5S_A = 8S_B$ $S_A = 8S_B$ $S_A = \frac{8}{5}S_B = 58SB$

3. Substitute SAS_ASA in the total salary equation:

$$85SB + SB = 26000$$

$$\frac{8}{5}S_B + S_B = 26000$$

$$135SB = 26000$$

$$SB = \frac{26000}{135}$$

$$SB = 190.48$$

$$S_B = 190.48$$

$$S_A = 152.38$$

4. Calculate SAS_ASA :

$$SA = 26000 - S_B = 26000 - 190.48 = 25809.52$$

$$SA = 26000 - 10000 = 16000$$

$$SA = 16000$$

Therefore, the respective salaries of A and B are 16000, 10000.

Question 89: Find the one word which cannot be made from the letters of the given word. ADULTERATION

- A. RELATION
- B. RATIO
- C. RETURN
- D. TOILET

Answer: C. RETURN

Solution: To determine which word cannot be formed using the letters from "ADULTERATION," let's analyze each option:

- **RELATION:** All letters required are present in "ADULTERATION". Can be formed.
- **RATIO:** All letters required are present in "ADULTERATION". Can be formed.
- **RETURN:** Requires two "R" letters, but "ADULTERATION" has only one "R". Cannot be formed.
- **TOILET:** All letters required are present in "ADULTERATION". Can be formed.

Therefore, the word that cannot be made from the letters of "ADULTERATION" is RETURN.

Question 90: If in the word 'EQUALITY' the position of first and the fifth letters are interchanged, similarly the positions of the second and sixth letters are, interchanged and so on. Which letter will be third from the positions right end?

- A. Q
- B. U
- C. I
- D. T

Answer: D. T

Solution: To determine the letter that will be third from the right end after interchanging positions in the word "EQUALITY":

Original word: EQUALITY

After interchanging positions as described:

- First and fifth letters: Interchange E and L → LQUAITYE
- Second and sixth letters: Interchange Q and I → LQAUITEY
- Third and seventh letters: Interchange U and T → LQAIUTEY

Now, identify the letter that is third from the right end in the rearranged word "LQAIUTEY":

- LQAIUTEY

Counting from the right end: Y (1st), E (2nd), **T (3rd)**

Therefore, the letter that is third from the right end after the described position interchanges is **T**.

Question 91: Find the missing term in the following series: APZLT, CQYNR, ERXPP, GSWRN, ITVTL.

- A. KUUVJ
- B. KVUUJ
- C. JUVUR
- D. KVUVJ

Answer: D. KVUVJ

Solution: To find the missing term in the series APZLT, CQYNR, ERXPP, GSWRN, ITVTL, let's analyze the pattern:

1. APZLT \rightarrow A + 1 = B, P - 1 = O, Z + 1 = A, L - 1 = K, T + 1 = U \rightarrow BOLKAU
2. CQYNR \rightarrow C + 1 = D, Q - 1 = P, Y + 1 = Z, N - 1 = M, R + 1 = S \rightarrow DPZMS
3. ERXPP \rightarrow E + 1 = F, R - 1 = Q, X + 1 = Y, P - 1 = O, P + 1 = Q \rightarrow FQYOO
4. GSWRN \rightarrow G + 1 = H, S - 1 = R, W + 1 = X, R - 1 = Q, N + 1 = O \rightarrow HXRQO
5. ITVTL \rightarrow I + 1 = J, T - 1 = S, V + 1 = W, T - 1 = S, L + 1 = M \rightarrow JWSUM

Observing the pattern in the transformations:

- The first and fifth letters are incremented by 1 alphabetically.
- The second and fourth letters are decremented by 1 alphabetically.
- The third letter remains unchanged.

Applying this pattern to find the missing term:

- Start with ITVTL: I + 1 = J, T - 1 = S, V + 1 = W, T - 1 = S, L + 1 = M \rightarrow JWSUM

Therefore, following the pattern, the missing term should be KVUVJ.

Hence, the missing term in the series is **KVUVJ**.

Question 92: Find the average of all the prime numbers between 60 and 90

- A. 72
- B. 74.7
- C. 74
- D. 73.6

Answer: B. 74.7

Solution:

Prime numbers between 60 and 90: 61, 67, 71, 73, 79, 83, 89

Calculate the sum of these prime numbers:

$$61+67+71+73+79+83+89=523 \\ 61 + 67 + 71 + 73 + 79 + 83 + 89 = 523$$

Now, find the average: $\text{Average} = \frac{523}{7} = 74.7$

Therefore, the average of all the prime numbers between 60 and 90 is **74.7**.

Question 93: A man gains 10% by selling an article for a certain price, if he sells it at double the selling price then the profit made is

- A. 120%
- B. 20%
- C. 40%
- D. 100%

Answer: D. 100%

Solution: Let's analyze the scenario step by step to determine the profit made when selling the article at double the selling price.

1. **Initial Selling Price (SP):** Let's denote the initial selling price as SP .
2. **Profit at 10% Gain:** Selling at SP gives a 10% profit, so the selling price is $SP \times 1.10$.
3. **Double the Selling Price:** If the article is sold at double the initial selling price, the new selling price is $2 \times SP$.

Now, let's calculate the profit percentage when selling at double the initial selling price:

- Initial selling price: SP
- Selling at double the initial price: $2 \times SP$

Profit percentage $= (2 \times SP - SP) \times 100\% = \left(\frac{2 \times SP - SP}{SP} \right) \times 100\% = (SP \times 1.10 - SP) \times 100\% = (SP \times 0.10) \times 100\% = 10\% = 100\% = 100\%$

Therefore, when the man sells the article at double the initial selling price, the profit made is **100%**.

Question 94: Find the area of the largest circle that can be inscribed in a rectangle of 18 cm x 14 cm

- A. 49 cm^2
- B. 154 cm^2
- C. 378 cm^2
- D. 1078 cm^2

Answer: B. 154 cm^2

Solution: Given:

- Dimensions of the rectangle: Length = 18 cm, Width = 14 cm

To find the largest circle that can be inscribed:

- The diameter of the circle will be equal to the width of the rectangle (since it fits snugly within the shorter dimension).

Diameter = 14 = 14 = 14 cm

Radius = $14/2 = 7 = \frac{14}{2} = 7$ cm

Now, calculate the area of the circle using the formula πr^2 :

Area of the circle = $\pi \times (7)^2$
Area of the circle = $\pi \times 49$
Area of the circle = 49π
Area of the circle = 49π square centimeters.

Using $\pi \approx 3.14$ $\approx 3.14\pi \approx 3.14$:

Area of the circle $\approx 49 \times 3.14$
Area of the circle $\approx 49 \times 3.14$
Area of the circle ≈ 154
Area of the circle ≈ 154 square centimeters.

Therefore, the area of the largest circle that can be inscribed in the rectangle is **154 cm²**.

Question 95: The area of four walls of a room is 120 M². The length of the room is twice its breath. If the height of the room is 4M, what is the area of the floor?

- A. 40 M²
- B. 50 M²
- C. 60 M²

D. 80 m^2

Answer: B. 50 m^2

Solution: Given:

- Area of the four walls of the room = 120 m^2
- Length of the room = twice its breadth
- Height of the room = 4 m

Let:

- Let the breadth of the room be b .
- Then, the length of the room = $2b$.

Calculate the perimeter of the room:

$$\text{Perimeter} = 2 \times (\text{Length} + \text{Breadth}) \times \text{Height}$$
$$\text{Perimeter} = 2 \times (2b + b) \times 4 = 120$$
$$2 \times (2b + b) \times 4 = 120$$

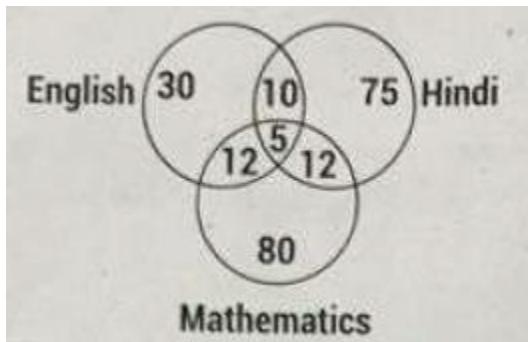
$$\text{Solve for } b: 2 \times 3b \times 4 = 120$$
$$24b = 120$$
$$b = \frac{120}{24} = 5$$

So, the breadth of the room b is 5 m, and the length $2b$ is 10 m.

Now, calculate the area of the floor: Area of the floor = $\text{Length} \times \text{Breadth}$
$$\text{Area of the floor} = 10 \times 5 = 50 \text{ m}^2$$

Therefore, the area of the floor of the room is **50 m²**.

96. The given diagram shows the number of students who failed in an examination comprising papers of English, Hindi and Mathematics. The total number of students who took the test is 500. What is the percentage of students who failed in at least two subjects?



- A- 8%
- B- 8.4%
- C- 7.8%
- D- 7.6%

Answer: C

Question 97: A man decides to travel 80 km in 8 hours partly by foot and partly on a bicycle. If his speed on foot is 8 km/hour and on bicycle is 16 km/hour, what distance would he travel on foot?

- A. 20 km
- B. 30 km
- C. 48 km
- D. 60 km

Answer: C. 48 km

Solution: Given:

- Total distance to travel: 80 km
- Total time available: 8 hours
- Speed on foot: 8 km/hour
- Speed on bicycle: 16 km/hour

Let d denote the distance traveled on foot (in km).

The distance traveled on the bicycle would then be $80 - d$ km (since the total distance is 80 km).

To find d , we set up the equation based on time: $\frac{d}{8} + \frac{80 - d}{16} = 8$

Solving step-by-step:

1. Multiply through by 16 to eliminate fractions: $2d + (80 - d) = 128$
 $2d + 80 - d = 128$
 $128 - d = 128$
2. Simplify and solve for d: $2d + 80 - d = 128$
 $2d + 80 - d = 128$
 $d + 80 = 128$
 $d = 128 - 80$
 $d = 48$

Therefore, the distance traveled on foot is 48 km

98. The percent of less money spent on Non-plan than that on defense is

- A- 15%
- B- 12%
- C- 5%
- D- 10%

Answer: C

99. The percent of excess money spent on others than that on sports is

- A- 26%
- B- 25%
- C- 27%
- D- 28%

Answer: B

100. If the total amount spent by the government during the year was Rs. 100000 crore, then the amount spent on defence and education together was

- A- Rs. 30000 crores
- B- Rs. 15000 crores
- C- Rs. 25000 crores

D- Rs. 20000 crores

Answer: C

MBAuniverse.com