Rashtriya Military School

Common Entrance Test

CET

(Class-IX)

Solved Papers

₹ : 295/-

CONTENT

Solved Paper

Syllabus

GENERAL ELIGIBILITY

For admission to Class IX , a boy should not be less than 13 year or more than 13 year of age on first July of the year of admission .

● Admission are made strictly according to the order if merit attained by a student.The order of merit is worked out seperately for each other Class.A boy who does not pass the rest is not admitted even if a vacancy exist.

● Admission are subjected to the boys being found medically fit . Bed letters are not admitted.

● Until the waiting list of Class IX is completely exhausted, admission will not be made to Class X .The same is true for all the other classes

TEST PATTERN

Sections.	No of Questions.	Max Marks
Paper I		
English	50	50
Hindi	20	20
Social sciences.	30	30
Total	**100**	**100**
Paper II		
Mathematics	50	50
Science	50	50
Total	**100**	**100**

INTERVIEW

Those candidates who qualify in the written test will be called for the interview at one of the rashtriya military school full stop marks of the interview will be added to the score of the return test before deciding the final merit. No travelling or other allowance admission in connection with the journeys undertaken for the common entrance test of the interview.

FINAL SECTION

Candidates selected in order of merit on the basis of total mass secured by them in the admission test and the interview will be advocate to the different casting liquid school based on availability of vaccines medical fitness and as per the reservation norms laid down for the various categories.

Rashtriya Military School Entrance Exam-2023
Class-IX
Solved Paper

ENGLISH

Directions (Q. Nos. 1-5) Choose the words that are nearest in meaning to the bold and underlined words.

1. **The country has a <u>potential</u> to exploit more mineral resources.**
   - (a) fortune
   - (b) hidden possibility
   - (c) capacity
   - (d) good luck

   Ans. (c) : The option (c) is the most nearest in meaning of the word (underlined '<u>Potential</u>' that is "capacity", it refers to the ability or capability to do something in the future "capacity" directly relates to the capability to exploit resources.

2. **Seeing the room in a disorderly state, Ravi concluded that someone had <u>ransacked</u> the place.**
   - (a) upset
   - (b) viewed
   - (c) destroyed
   - (d) visited

   Ans. (c) : The option (c) is the correct choice, because '<u>ransacked</u>' implies causing disorder or damage to the place during search often in a destructive or disorderly way. So, the most appropriate word with the closest meaning is '<u>Destroyed</u>'.

3. **Grandfather has been getting <u>feeble</u> off late.**
   - (a) tall
   - (b) weak
   - (c) diseased
   - (d) small

   Ans. (b) : The most appropriate word is option (b) that is '<u>weak</u>' of the underlined word '<u>Feeble</u>'. The most closest meaning is '<u>Weak</u>', it means locking strength or energy, which closely matches the meaning of feeble. Hence, the option (b) is the most appropriate.

4. **A feeling of brotherhood should be <u>nurtured</u> in the masses.**
   - (a) brought out
   - (b) brought up
   - (c) admired
   - (d) encouraged

   Ans. (d) : The option (d) is the closest in meaning. This word means to care for and encourage the growth or development. Here, in the context, nurturing, a feeling of brotherhood implies promoting or fostering it among people. So, Encouraged is the best choice that is option (d).

Meaning of other options are–

Brought out: to reveal or make something visible or known.

Brought up: raising or educating someone, especially children or mentioning topic in conversation.

Admired: to regard with respect or approval.

5. **I tried to persuade him to change his mind but he remained <u>adamant</u>.**
   - (a) fixed
   - (b) stubborn
   - (c) aggressive
   - (d) defensive

   Ans. (b) : The option (b) is correct. That is "<u>Stubborn</u>". The person who is adamant refuses to change their mind or stance, regardless of persuasion or reasoning. Someone who is determined and unwilling to change their views.

Directions (Q. Nos. 6-10) Choose the correct indirect forms of the following.

6. **He said, 'Where are you going?'**
   - (a) He said that where I was going.
   - (b) He asked where I was going.
   - (c) He told that he was going.
   - (d) He says that where I was going.

   Ans. (b) : The option (b) is correct that is "<u>He asked where I was going</u>". Because '<u>asked</u>' is the appropriate verb for indirect questions. The sentence correctly follows the subject + reporting verb + question clause format. Thus, option (b) is the most suitable choice.

7. **He said to him, 'You may go.'**
   - (a) He told me to go.
   - (b) He told that he would go.
   - (c) I told him that he might go.
   - (d) He said to me to go.

   Ans. (c) : The option (c) is correct. The indirect form is <u>I told him that he might go</u>. When converting from direct to indirect speech, the word "may" is typically changed to "might" when reporting in Past Tense. The reporting verb "said to" is replaced by "told" in indirect speech when giving instructions or permission. The structure "He said to him" becomes "He told him" in indirect form.

8. **Anjali says, 'She is reading.'**

    (a) Anjali said that she was reading.

    (b) Anjali says that she is reading.

    (c) Anjali says that she had been reading.

    (d) Anjali says that she will be reading.

Ans. (b) : The option (b) is correct. The correct indirect form it : <u>Anjali says that she is reading.</u> Reporting verb in present tense ("says") when the reporting verb is in the present tense, the tense of the original statement usually doesn't change. In this case, since the reporting verb "says" is in the present tense, we keep the present continuous tense ("is reading") in the indirect form (speech).

9. **He said, 'Suresh is unwell.'**

    (a) He said that Suresh is unwell.

    (b) He told that Suresh was unwell.

    (c) He said that Suresh was unwell.

    (d) He said that Suresh had been unwell.

Ans. (c) : The option (c) is grammatically correct. The indirect form is : "<u>He said that Suresh was unwell</u>". If the reporting verb is in the past tense, the tense of the verb in the reported speech usually shifts back one step into the past. Present tense (is) changes to past tense (was). Since the reporting verb (said) is in the past, we typically change "is" to "was" unless the situation is still true or a universal fact.

10. **Deepak said to his friend. 'Work hard.'**

    (a) Deepak told his friend to work hard.

    (b) Deepak advised his friend for working hard.

    (c) Deepak advised his friends for hard work.

    (d) Deepak advised his friend to work hard.

Ans. (a) : The option (a) is correct. The grammatically correct indirect form is : "<u>Deepak told his friend to work hard</u>". The verb "told" or "advised" are commonly used in indirect, speech when giving instruction, advice or commands. In this case, both "told" and advised are appropriate. When reporting a command or suggestion in indirect speech, we typically use the infinitive form (i.e., "to work hard").

    Directions (Q. Nos. 11-15) In each of the following questions, out of the given alternatives, choose the one which best expresses the given word.

11. **CROFTER**

    (a) Fortress   (b) Priest

    (c) Insane   (d) Farmer

Ans. (d) : The option (d) is correct. The best expressing word is "farmer" that closely relates to "crofter". A crofter is a tenant farmer who works on small piece of land, especially in rural areas of Scotland. The term directly associated with someone engaged in agri. cultural activities, making this, the best match.

Meaning of other options are–

Fortress: This term refers to a large fortified structure designed for defense, like a castle.

Priest: A priest is a religious leader involved in spiritual activities.

Insane: This term related to mental health, describing a person with mental instability.

12. **DEFUNCT**

    (a) Active   (b) Clever

    (c) Alive   (d) Extinct

Ans. (d) : The appropriate option is (d). This is best word to express the meaning of "Defunct" from the given options is "extinct". The word means no longer active which matches the meaning of "defunct". Both terms imply that something has ceased to function or exist.

Meaning of other options are–

Active: This is the opposite of defunct. It means currently in operation, functioning or working.

Clever: This word refers to someone who is quick witted or intelligent.

Alive: This means living or existing and also opposite to "defunct".

13. **LEWDNESS**

    (a) Recession   (b) Indecency

    (c) Depression   (d) Bliss

Ans. (b) : The option (b) is most suitable word that aligns with the meaning of lewdness. The word is "Indecency" this is the most appropriate option because it directly relates to the behavious that is considered immoral or offensive, particularly in a sexual context. Lewdness and Indecency are often used as synonym, making this the best choice.

Meaning of other options are–

Recession: This term is used in economics to describe a period of economic decline or reduced economic activity.

Depression: The term can refer to a mental health condition characterized by persistent sadness or lock of interest.

Bliss: Bliss means a state of complete happiness, or joy. It is unrelated to the concept of lewdness.

14. ANGST

    (a) Anxiety   (b) Pride

    (c) Modesty   (d) Simplicity

Ans. (a) : The option (a) correct "Anxiety" is the most appropriate word for "angst" as both term refers to feelings of worry, unease, or nervousness. "Angst" often describes a deep, sometimes existential, sense of dread or apprehension, which is closely aligns with the meaning of anxiety.

Meaning of other options are–

Pride: Pride is a feeling of satisfaction or self-respect derived from one's achievements or qualities.

Modesty: Modesty refers to humility or lack of arrogance.

Simplicity: Simplicity is the quality of being uncomplicated, straight forward or natural.

15. SAGACITY

    (a) Morality   (b) Wisdom

    (c) Sanity   (d) Uprightness

Ans. (b) : The option (b) is most appropriate. The best expresses the meaning of "sagacity" is "Wisdom". It (sagacity) refers to the quality of having keen insight, good judgment, and the ability to make wise decisions.

Meaning of other options are–

Morality: This term relates to principles concerning the distinction between right and wrong or good behaviour.

Sanity: It refers to the state of having sound mind.

Uprightness: It means being honest, honourable, and having strong moral principles.

Directions (Q. Nos. 16-20) Select one correct word for the statement given below

16. One who totally abstains from alcoholic drink.

    (a) Inebriate   (b) Pedant

    (c) Teetotaler   (d) Puritan

Ans. (c) : The correct option is (c). The correct word is "Teetotaler". It refers to a person who completely abstains from consuming alcoholic beverages.

Meaning of other option are–

Inebriate: It refers to someone who is drunk or intoxicated and opposite of a teetotaler.

Pedant: It refers to a person who is overly concerned with minor details or rules, especially in learning or teaching.

Puritan: A puritan is someone who adheres strictly to religious or moral principles, often advocating for simple and strict lifestyle.

17. The killing of a human being.

    (a) Murder   (b) Assassination

    (c) Homicide   (d) Suicide

Ans. (c) : The option (c) is correct. That is "Homicide". It is a general term that refers to the act of killing another person or (human being), either legally or illegally.

Meaning of other options are–

Murder: This one is a type of homicide that involves the unlawful, intentional killing of another person.

Assassination: It refers to the deliberate killing of a prominent, often for political or religious reasons.

Suicide: This is the act of intentionally causing one's own death. It doesn't involve another person.

18. Person who eats too much.

    (a) Fatty   (b) Polyglot

    (c) Glutton   (d) Preconscious

Ans. (c) : The option (c) is correct. The correct word for a person who eats too much is "Glutton". This word that matches the statement.

Meaning of other options are–

Fatty: This term is often used to describe someone who has a lot of body fat.

Polyglot: A person who knows and can use several languages.

Precocious: The word describes a child who shows abilities or qualities at an unusually early age, especially in learning or development.

19. A child born after the death of his father.

    (a) Orphan   (b) Late

    (c) Progenitor   (d) Posthumous

Ans. (d) : The option (d) is correct. It is "Posthumous". It refers to something that happens after the death of a person. Posthumous child is a child born after the death of their father.

Meaning of other options are–

Orphan: A child who has lost one or both parents.

Late: It is refers to someone who has died. It's often used to describe someone who has passed away.

Posthumous: Refers to an ancestor or a person from whom others are descended.

20. Period of ten years.

    (a) Decade   (b) Fortnight

    (c) Anniversary   (d) Biennial

Ans. (a) : The option (a) is correct. The period of ten years is "Decade". Now the one word for the statement is "Decade".

Meaning of other options are–

Fortnight: A period of two weeks (1st days).

Anniversary: A yearly event marking the date of an event from the past.

Biennial: Occurring every two years.

Directions (Q. Nos. 21-25) Choose the correct answer to the given idiomatic verbal expressions given below.

21. To hold one's tongue

   (a) to be ready   (b) to be silent

   (c) to speak   (d) to curb

Ans. (b) : The option (b) is most suitable. The idiom "to hold one's tongue" means "to remain silent" or to refrain from speaking, especially in situation where one might otherwise speak out. It implies consciously deciding not to say anything.

22. To fall flat

   (a) to pass away   (b) to be fruitless

   (c) to yield   (d) to collapse

Ans. (b) : The option (b) is most suitable. The idiom "To fall flat" means "to be fruitless". It, to fail to produce the intended effect, often referring to plan or attempt that does not succeed or get the desired response. The expression implies that the effort was unsuccessful, and there were no positive results or impact from the action. So, the idiom "to fall flat" best aligns with the meaning of "to be fruitless", as indicates a lack of success or effectiveness in the intended effort.

23. To be above board

   (a) to have a good height

   (b) to be honest in any business deal

   (c) to have no doubts

   (d) None of the above

Ans. (b) : The option (b) is the most suitable. The idiom "to be above board" means to be Honest, straight forward and trans parent, particularly in business or financial matters. When someone acts above the board, they are conducting their affairs openly and without any attempt to deceive or hide anything. Thus, the correct option is (b) that is "To be honest in any business deals".

24. To be at home in

   (a) to feel safe   (b) to well versed in

   (c) to feel intimacy   (d) to have a fine time

Ans. (b) : The most suitable option is (b) that is "to be well-versed in". The phrase "to be at home in" typically means to be comfortable, skilled, or knowledgeable in a particular area or subject. It suggests that a person feels confident and capable because they have a good understanding or mastery on the topic. Hence, "To be well-versed in" is the most accurate interpretation of the idiom "to be at home in".

25. To get rid of

   (a) to understand   (b) to prevail over

   (c) to be deprived of   (d) to become free from

Ans. (d) : The option (d) is the most suitable answer for the idiomatic expression "to get rid of". that is "to become free from".

"To get rid of" means to remove, dispose of, or climate something that is unwanted or unnecessary.

The pharase implies an action aimed at freeing oneself from a burden, obstacle or unwanted situation.

Directions (Q. Nos. 26-30) Out of the alternatives given, select the word which closely fits each definition.

26. A person who does not believe in the existence of God.

   (a) Theist   (b) Atheist

   (c) Agnostic   (d) Ascetic

Ans. (b) : The option (b) is the most suitable for "a person who does not believe in the existence of god" is "Atheist". An atheist is someone who does not believe in the existence of gods or deities. Atheist do not accept religious beliefs regarding the existence of god or goddesses.

27. Animals that eat flesh.

   (a) Herbivores   (b) Carnivores

   (c) Vegetarian   (d) Graminivorous

Ans. (b) : The option (b) is the most suitable for "Animals that eat flesh" is "carnivores". These animals primarily eat the flesh of other animals. Examples include lions, tigers, and wolves. They have adaptation like sharp teeth and claws to help them hunt and consume meat.

28. An animal that is equally at home on land and in water.

   (a) Cannibal   (b) Domestic

   (c) Amphibians   (d) Aquatic

Ans. (c) : The option (c) is the most suitable for "An animal that is equally at home on land and in water" is "Amphibians". Amphibians are animals that can live both on land and in water. Examples include frogs, toads and salamanders. They typically begin their life in water and develop the ability to live on land as they mature. So, Amphibians is the correct choice as specifically refer, to creatures that are adapted to both land and water environments.

29. A tank where fish or water plants are kept.

   (a) Nursery   (b) Aviary

   (c) Aquarium   (d) Apiary

Ans. (c) : The option (c) is the most suitable for "A tank where fish or water plants are kept" is "Aquarium". An aquarium is a tank or container where fish or water plants are kept and maintained, usually for display or hobby purposes.

So, An 'aquarium' is correct choice.

30. A short journey for fun.

(a) Excursion   (b) Emigrant

(c) Amateur   (d) Emissary

Ans. (a) : The option (a) is the most suitable for "A short journey for fun" is "Excursion". An excursion refers to a short journey or trip taken for pleasure or leisure often involving a group of people. It specifically describes a short journey for enjoyment.

Directions (Q. Nos. 31-35) Pick out a word from the given words to make the given sentences meaningfully complete.

31. One of the committee members brought .... an interesting point.

(a) up   (b) with

(c) about   (d) forward

Ans. (d) : The option (d) is correct. The most appropriate choice for filling the blank is "Forward". The phrase "brought forward" means to present or introduce an idea, suggestion, or point in a discussion.

32. Does your pride prevent you .... making decision you know you should?

(a) away   (b) alert

(c) from   (d) quiet

Ans. (c) : The option (c) is the correct choice. The most appropriate choice is "From". This is correct because "Prevent" is usually followed by "from" when indicating an action that is being stopped or avoided.

33. I had not expected to meet him, it was quite an .... meeting.

(a) organised   (b) intentional

(c) undesirable   (d) accidental

Ans. (d) : The option (d) is the correct choice "Accident" is the correct choice because it describes something that happens by chance or without planning, which matches the context of the sentence. The phrase "I had not expected to meet him" indicate that the meeting was unplanned and unexpected, making "accidental". The most suitable word to fill the blank.

34. I could .... see the sight since it was dark.

(a) clearly   (b) barely

(c) aptly   (d) obviously

Ans. (b) : The option (b) is correct. The most appropriate word for this sentence is "barely". "Barely" means "almost not" or "only just". It fits the context because it suggests that visibility was very limited due to the darkness. Using barely indicates that the darkness made it very difficult to see, and you could only see a little or not much at all.

35. Their .... to scale the mountain peak was an absolute failure.

(a) attempt   (b) desire

(c) anxiety   (d) proposal

Ans. (a) : The option (a) is suitable choice. This word, "attempt" is correct because it refers to trying to achieve something. In the context of the sentence, it makes sense to say, "Their attempt to scale the mountain peak was an absolute failure". Hence, "attempt" is the grammatically and contextually suitable choice.

Directions (Q. Nos. 36-40) Select the appropriate synonym (which is nearest to the meaning) to the words given in capital letters.

36. CHEERFUL

(a) Colourful   (b) Joyful

(c) Beautiful   (d) Powerful

Ans. (b) : The option (b) is correct choice. The closest meaning to "Cheerful" among the given options is "joyful". This word means full of joy. happiness, or delight, Which closely matches the meaning of "Cheerful". Both words express a sense of positive emotions, uplifted spirits, and a happy state of mind.

So, "joyful" is the best choice because it directly captures the essence of being in a happy and positive mood, similar to "cheerful".

37. BEHAVE

(a) Act   (b) Speak

(c) More   (d) Manners

Ans. (a) : The option (a) is correct. The closest meaning to the word "behave" among the given options is "act". It means "behave" often means to act in a particular way, especially in response to certain circumstances or according to rules or social norms. For example, if someone tell you to "behave", they mean you should act appropriately. So the best choice is "act", as it captures the essence of behaving in a particular way.

38. HONESTY

(a) Integrity   (b) Proficiency

(c) Minority   (d) Rarity

Ans. (a) : The option (a) is the best choice. The closest meaning of the word "Honesty" out of the options given is "Integrity". The integrity refers to the quality of being honest and having strong moral principles. It closely aligns with "honesty" because both involve truthfulness, trustworthiness, and adherence to ethical values. Since, "integrity" is directly associated with honesty and moral uprightness.

39.   HOSTILE

(a) Friendly   (b) Inimical

(c) Fallacious   (d) Quarrelsome

Ans. (b) : The option (b) is the best choice. The closest meaning to "hostile" among the given options is "inimical". This mean harmful, unfriendly or opposed to something. It closely matches the meaning of hostile as both words suggest a negative or antagonistic attitude. There fore, "Inimical" is the best choice as it directly relates to being unfriendly or harmful, similar to the meaning of hostile.

40.   REQUEST

(a) Permit   (b) Allow

(c) Pray   (d) Search

Ans. (c) : The option (c) is most suitable choice. The appropriate synonym for "Request" from the given option is "pray". Pray can mean to ask earnestly or humbly for something, especially in a religious context, and it aligns more closely with the act of making a request. So, while "pray" may not be the most common synonym in everyday usage, it fits the context of asking for something.

Directions (Q. Nos. 41-45) In each of the following questions, choose the alternative which can replace the word in bold without changing the meaning of the sentence.

41.   It is not for lay leaders to evaluate a great poet.

(a) learned   (b) ordinary

(c) idle   (d) expert

Ans. (b) : The option (b) is the best alternative. The appropriate choice for the word "Lay" in the phrase, It is not for "lay" leader to evaluate a great poet is "ordinary".

Ordinary: This suggests someone who is common or average, lacking the expertise or depth of understanding. This fits well because it conveys the idea that a typical leader, without specialized knowledge in poetry, should not be judge a great poet.

42.   The novel was so interesting that I was oblivious of my surroundings while reading it.

(a) indifferent   (b) watchful

(c) aware   (d) unaware

Ans. (d) : The option (d) is the best alternative to replace "oblivious" in a sentence is "Unaware". The word "unaware", on the other hand, accurately captures the state of being so engrossed in the book that you do not notice what's happening around you.

43.   Her extraordinary stage appearance should not be attributed to sheer fluke only.

(a) event   (b) effort

(c) accident   (d) meeting

Ans. (c) : The option (c) is the best choice. The best alternative to replace the word "Fluke" in the sentence is "Accident". This means something that happens unexpectedly or by chance. similar to "fluke". It aligns with the idea that her stage appearance should not be seen as a mere coincidence or luck. Hence, "accident" is the most appropriate replacement because it captures the idea that her extraordinary appearance was not a random or lucky occurrence.

44.   The examination is going to commence on the 10ᵗʰ of this month.

(a) finish   (b) begin

(c) cancel   (d) continue

Ans. (b) : The option (b) is the appropriate choices. The best alternative to replace the word "commence" in the sentence is "Begin". This is a synonym for "Commence" meaning to start or initiate something. It fits perfectly in the sentence since it conveys the idea that the examination will start on the specified date.

Therefore, "begin" is the best choice because it correctly conveys the meaning of starting the examination.

45.   The invasion force had no artillery and was completely annihilated.

(a) reduced   (b) defeated

(c) dismembered   (d) split

Ans. (b) : The option (b) is the most suitable choice. The best alternative to replace the word "Annihilated" in the sentence is "Defeated". It means that the invasion force was beaten or overcome. While it does not imply the same level of total destruction as "annihilated", it still captures the idea that the force was rendered powerless or unsuccessful, which fits the context well.

There for, "defeated" is the most suitable re-placement because it clearly communicates that the invasion force was overeone, even if not completely destroyed.

Directions (Q. Nos. 46-50) Read the passage given below carefully and answer the questions that follow. Every year, millions of people around the world celebrate International Women's Day on 8th March. This day is a reminder of the struggles and achievement of women throughout history and serves as a call to action for gender equality. The origins of International Women's Day date back to the early 20th century when women in different countries began to organize and protest against discrimination and inequality. In 1908, 15,000 women marched through New York City demanding shorter work hours, better pay and voting rights. The following year, the first National Women's Day was observed in the United States on 28th February. In 1910, an International Women's Conference was held in Copenhagen, Denmark, where a proposal to establish an International Women's Day was passed.

The first International Women's Day was observed on 19th March, 1911 in Austria, Denmark, Germany and Switzerland. Since then, International Women's Day has been celebrated in various ways around the world, from marches and rallies to cultural events and social media campaigns. The day is an opportunity to acknowledge the contributions of women to society and to advocate for their rights and empowerment.

46. What were the demands of the 15,000 women who marched through New York City in 1908?
(a) Better working conditions
(b) Shorter work hours, better pay and voting rights.
(c) Equal pay and job opportunities
(d) Both (a) and (c)

Ans. (b) : The option (b) is correct. This option is based on the passage. The correct answer is "Shorter work hours, better pay, and voting rights". The other options either do not mention all the three demands. The demands were mentioned in underlined sentence and that is option (b).

47. In which year did the women come together for the first time to demand for their rights?
(a) 1908   (b) 1910
(c) 1911   (d) 1928

Ans. (a) : The option (a) is correct. That is in 1908. According to the passage, women first come together to demand their right in 1908.

48. What is International Women's Day?
(a) A day to celebrate men.
(b) A day to celebrate women's achievements and call for gender equality.
(c) A day to protest against women's rights.
(d) None of the above

Ans. (b) : The option (b) is correct. The correct answer is "A day to celebrate women's achievements and call for gender equality." Based on the passage, International Women's Day is described as a "reminder of the struggles and achievements of women throughout history" and serves as a call to action for gender equality."

49. What is the purpose of International Women's Day?
(a) To acknowledge the contributions of men to society.
(b) To advocate for women's rights and empowerment.
(c) To protest against gender equality.
(d) Both (a) and (b)

Ans. (b) : The option (b) is correct. The option describes that "To advocate for women's rights and empowerment". The passage highlights that international women's day is an opportunity to acknowledge the contributions of women to society and to advocate for rights and empowerment.

50. Where was the first International Women's Day observed?
(a) United States
(b) Denmark
(c) Austria, Denmark, Germany and Switzerland
(d) New York

Ans. (c) : The option (c) is correct answer. The answer is "Austria, Denmark, Germany, and Switzerland".
According to the passage, the first international Women's Day was observed on 14th March, 1911 in Austria, Denmark, Germany and Switzerland.

HINDI

51. 'महेश' शब्द का सही सन्धि-विच्छेद है
(a) महो + ईश   (b) महा + ईश
(c) मही + ईश   (d) महि + ईश

Ans. (b) : महेश का सन्धि विच्छेद महा + ईश होगा। इसमें गुण सन्धि है।

52. 'वर्षा' का पर्यायवाची शब्द है
(a) पावस   (b) मारुती
(c) नफरत   (d) मदन

Ans. (a) : वर्षा का पर्यायवाची शब्द बारिश, बरखा, पावस, वृष्टि, मेह, जलार्णव आदि है।

मारुती का पर्यायवाची – हनुमान, महावीर, बजरंग इत्यादि।

नफरत का पर्यायवाची – घृणा, शत्रुता, द्वेष इत्यादि।

मदन का पर्यायवाची – कामदेव, मनोज, कन्दर्प इत्यादि।

53. 'वैज्ञानिक' शब्द में किस प्रत्यय का प्रयोग हुआ है?

    (a) विज्ञान   (b) वैज्ञा

    (c) निक   (d) इक

Ans. (d) : वैज्ञानिक में 'इक' प्रत्यय का प्रयोग किया गया है। प्रत्यय वे शब्द होते हैं जो किसी शब्द के अन्त में लगाये जाते हैं।

54. 'यथासमय' शब्द में कौन-सा समास है?

    (a) अव्ययीभाव   (b) तत्पुरुष

    (c) द्विगु   (d) द्वन्द्व

Ans. (a) : यथासमय में अव्ययीभाव समास है। अव्ययी भाव समास प्रथम पद अव्यय और अन्तिम पद संज्ञा होता है।

55. इनमें से कौन-सा शब्द अशुद्ध है?

    (a) कलश   (b) कल्याण

    (c) रसायन   (d) पूण्य

Ans. (d) : 'पूण्य' शब्द वर्तनी की दृष्टि से अशुद्ध है। शुद्ध वर्तनी 'पुण्य' होता है।

56. 'अमृत' का विलोम शब्द है

    (a) जीवन   (b) विष

    (c) मीठा   (d) जल

Ans. (b) :

शब्द		विलोम
अमृत	–	विष
जीवन	–	मृत्यु
मीठा	–	कड़वा
जल	–	निर्जल

57. 'अति' का विलोम शब्द है

    (a) न्यून   (b) कम

    (c) अल्प   (d) नगण्य

Ans. (c) :

शब्द		विलोम
अति	–	अल्प
कम	–	ज्यादा
न्यून	–	अधिक
नगण्य	–	गण्य

58. 'आशा' का विलोम शब्द है

    (a) दुराशा   (b) निराशा

    (c) हताशा   (d) नाउम्मीद

Ans. (b) :

शब्द		विलोम
आशा	–	निराशा
नाउम्मीद	–	उम्मीद

59. 'भारतीय' शब्द में किस प्रत्यय का प्रयोग हुआ है?

    (a) ईय   (b) तीय

    (c) भार   (d) भारत

Ans. (a) : 'भारतीय' शब्द में 'ईय' प्रत्यय प्रयुक्त हुआ है।

60. 'जिसका मूल्य न किया जा सकता हो', के लिए उपयुक्त शब्द है

    (a) बहुमूल्य   (b) अद्वितीय

    (c) अमूल्य   (d) निर्मूल्य

Ans. (c) : जिसका मूल्य न किया जा सकता हो – अमूल्य

जिसका मूल्य बहुत अधिक हो – बहुमूल्य

जिसका कोई मूल्य न हो – निर्मूल्य

जिसके समान दूसरा न हो – अद्वितीय

61. 'पाठशाला' शब्द में कौन-सा समास है?

    (a) अधिकरण तत्पुरुष   (b) सम्बन्ध तत्पुरुष

    (c) करण तत्पुरुष   (d) सम्प्रदान तत्पुरुष

Ans. (d) : 'पाठशाला' में 'सम्प्रदान तत्पुरुष समास है। इसका समास विग्रह ''पाठ के लिए शाला'' होगा।

62. 'सूर्य' शब्द का स्त्रीलिंग क्या होगा?

    (a) सूर्याणी   (b) सूर्या

    (c) सूर्यायी   (d) सूर्यें

Ans. (b) : 'सूर्य' का स्त्रीलिंग शब्द 'सूर्या' होता है।

63. 'जो जीता न जा सके' के लिए उपयुक्त शब्द है

    (a) अजेय   (b) अविजित

    (c) विजयी   (d) दुर्जेय

Ans. (a) :

वाक्यांश		शब्द
जो जीता न जा सके	–	अजेय
जिसे जीतना कठिन हो	–	दुर्जेय
जो जीता हो	–	विजयी
जिसे जीता न गया हो	–	अविजित

64. 'धीरू और वीरू का .... है।' मुहावरे से रिक्त स्थान की पूर्ति कीजिए।

(a) पैर-घुंघरू का साथ   (b) दिल-दिमाग का साथ

(c) कुत्ते-हड्डी का साथ   (d) चोली-दामन का साथ

Ans. (d) : धीरू और वीरू का 'चोली-दामन का साथ' है। 'चोली-दामन का साथ' मुहावरे का अर्थ 'बहुत घनिष्ठ सम्बन्ध होना' है।

65. 'उपकार' शब्द का विलोम है

(a) अपकार   (b) आहार

(c) साकार   (d) आगम

Ans. (a) :

शब्द		विलोम
उपकार	–	अपकार
आहार	–	निराहार
साकार	–	निराकार

66. 'जिसका वर्णन न किया जा सके', के लिए उपयुक्त शब्द है

(a) अकथ   (b) अकथ्य

(c) गरिष्ठ   (d) अवर्णनीय

Ans. (d) : वाक्यांश   शब्द

वाक्यांश		शब्द
जिसका वर्णन न किया जा सके	–	अवर्णनीय
जो कहा न जा सके	–	अकथ्य
जो पचाने में कठिन हो	–	गरिष्ठ

67. इनमें से किस शब्द में लिंगप्रत्यय सम्बन्धी अशुद्धि है?

(a) उज्जवल   (b) गायिका

(c) गोपी   (d) नारि

Ans. (d) : 'नारि में लिंग प्रत्यय सम्बन्धी अशुद्धि है। शुद्ध शब्द नारी होता है।

68. 'दक्षिणी' शब्द में किस प्रत्यय का प्रयोग हुआ है?

(a) णी   (b) ई

(c) दक्ष   (d) इणी

Ans. (b) : 'दक्षिणी' शब्द 'ई' प्रत्यय का प्रयोग किया गया है।

69. 'तुम तो कभी दिखाई ही नहीं देते, तुम्हें देखने को तरस गया, ऐसा लगता है कि तुम ....।' मुहावरे से रिक्त स्थान की पूर्ति कीजिए।

(a) ईद के चाँद हो गए हो।

(b) कहीं गुम हो गए हो।

(c) घर से बाहर न निकलते हो।

(d) ईद के सूरज हो गए हो।

Ans. (a) : उपयुक्त रिक्त स्थान 'ईद के चाँद हो गये हो' होगा। 'ईद का चाँद होना' मुहावरे का अर्थ बहुत दिन के बाद दिखाई देना होता है।

70. 'परलोक' शब्द में किस उपसर्ग का प्रयोग हुआ है?

(a) प   (b) पर

(c) पा   (d) प्र

Ans. (b) : परलोक शब्द में 'पर' उपसर्ग का प्रयोग किया गया है। उपसर्ग किसी शब्द के पूर्व प्रयुक्त होते है।

SOCIAL SCIENCE

71. When did Simon Commission reach India?

(a) 1926   (b) 1927

(c) 1928   (d) 1930

Ans. (c) : The British government formed a commission to recommend the functioning of constitutional system of India it was headed by sir John Simon. This commission reached in India on 3 February 1928.

72. Who was the first Viceroy of India?

(a) Robert Clive

(b) Lord Willam Bentinck

(c) Warren Hastings

(d) Charles John Canning

Ans. (d) : Charles John canning was the first viceroy of India. Serued from 1858 to 1862. By Government of India Act 1858 governor general's post was changed into viceroy.

73. Hindu Succession Amendment Act was passed in

(a) 2005   (b) 2006

(c) 2008   (d) 2010

Ans. (a) : Hindu succession amendment act was passed in September 2005. It was amendment of Hindu succession act 1956.

74. Who devised the new-system of revenue called Mahalwari?

(a) Queen Elizabeth   (b) Holt Mackenzie

(c) Queen Victoria   (d) Gandhiji

Ans. (b) : Mahawadi system of revenue was devised by Holt Mackenzie in 1822. In this system ownership rights were with the peasants and it divided the land into Mahals. Mahalwari system was applied in North-West frontier, Agra, Central Province, Gangetic valley, Punjab etc.

75. Which Article of Constitution provides Indian citizens 'Right to Equality'?

(a) Article 17   (b) Article 14

(c) Article 29   (d) Article 42

Ans. (b) : Article 14 of the constitution of India provides 'Right to equality' to the citizens.

Article 17 is related to abolition of untouchability. Article 29 is related to protection of cultural and educational rights of minorities.

76. **What are the introductory lines of the Preamble of the Constitution of India.**
   (a) We, the Indians ....
   (b) We, the citizens of India ....
   (c) We, the members of the Constituent Assembly ....
   (d) We, the people of India ....

Ans. (d) : Introductory lines of the preamble of the constitution of India is 'We the people of India .....' Jawahar lal Nehru proposed the preamble before the drafting committee.

77. **The Contact zone between the Lithosphere, Hydrosphere and Atmosphere is called ....**
   (a) Tundra   (b) Biosphere
   (c) Atmosphere   (d) Ocean

Ans. (b) : The Contact zone between the lithosphere, hydrosphere and Atmosphere is called Biosphere.

78. **In which year Vasco da Gama, the Portuguese explorer discovered the sea route to India?**
   (a) 1498   (b) 1497
   (c) 1456   (d) 1435

Ans. (a) : Vasco da Gama was a Portuguese explorer who discovered sea route to India via cape of good hope in 1498.

79. **Who are firangis?**
   (a) Literate   (b) Spiritual
   (c) Foreigners   (d) Maritime

Ans. (c) : Foreigners, especially British people are called firangis. This term is referred during the colonial period in India.

80. **How many members are there in Lok Sabha?**
   (a) 540   (b) 545
   (c) 560   (d) 518

Ans. (*) : There are 543 elected members in the loksabha. Maximum no. of members in Lok Sabha is 550.

81. **for what purpose Kusum and Palash flowers are used?**
   (a) Extracting oil from the seeds
   (b) Colouring clothes and leather
   (c) Cooking and making food
   (d) All of the above

Ans. (d) : Kusum and Palash flowers are used in dyeing /Colouring clothes and leather, cooking and making food, extracting oil from seeds and in decoration also. So that all of the above is correct.

82. **What is the full form of TISCO?**
   (a) Technical Iron and Steel Company
   (b) Tata Iron and Steel Company
   (c) Tatanagar Iron and Steel Company
   (d) None of the above

Ans. (b) : TISCO full form is Tata Iron and Steel Company limited. It is now known as Tata Steel Limited. Tisco is founded by J.N. Tata 1907.

83. **In which year was Sati banned?**
   (a) 1816   (b) 1827
   (c) 1836   (d) 1829

Ans. (d) : Sati pratha was a Hindu practice where a widow would sacrifice herself by sitting on her husband's funeral pyre. This practice was banned by Lord William Bentinck in 1829.

84. **Which continent of the world does not have a desert?**
   (a) Europe   (b) Asia
   (c) Australia   (d) Africa

Ans. (a) : Europe continent does not have desert.

Continent	Desert
Asia –	Thar, Gobi
Africa –	Sahara
Australia –	Great Sandy desert

85. **Deposition of sand in a low hill like structure is known as a**
   (a) Glacier   (b) Sand dunes
   (c) Hill   (d) Valley

Ans. (b) : Deposition of sand in a low hill like structure is known as sand dunes. In deserts when wind blows, it lifts and transports sand from one place to another. when it stops blowing the sand falls and forms a low hill like structure.

86. **Name the state in which Kakrapar Nuclear Power Station is situated?**
   (a) Rajasthan   (b) Gujarat
   (c) Uttar Pradesh   (d) Maharashtra

Ans. (b) : Kakrapar Nuclear power station – Gujrat

Narora atomic power station – Uttar Pradesh

Tarapur atomic power station – Maharashtra

87. In representative democracies, people participate

(a) Directly   (b) Indirectly

(c) Both (a) and (b)   (d) None of these

Ans. (b) : In representative democracies people participate Indirectly in decision making process. people elect their representatives who make decision.

88. Canadian shield is rich in

(a) Gold and Uranium   (b) Bauxite

(c) Manganese   (d) Phosphate

Ans. (a) : The Canadian shield is rich in gold, silver, copper, zinc, nickel, iron, uranium and diamonds.

89. Nomadic herding is practiced in

(a) Tropical region   (b) Temperate region

(c) Arid region   (d) Sub-tropical region

Ans. (c) : Nomadic herding is practiced in arid and semiarid regions of Africa, Asia, Europe. Nomadic herd is a traditional practice where people move their livestock from place to place is search of fresh pasture and water.

90. Nepal became democratic in ....

(a) 2005   (b) 2006

(c) 2007   (d) 2008

Ans. (d) : Nepal became a democratic country in may 2008. K.P. Sharma oli is the prime minister of Nepal.

91. Industrial locations are influenced by availability of ....

(a) Raw material   (b) Labour

(c) Transport   (d) All of these

Ans. (d) : Industrial are established where raw material, Labour and convenience of transport is easily available.

92. When was Swarnajayanti Gram Swarojgar Yojana started?

(a) 15th August, 1947   (b) 26th January, 1950

(c) 2nd October, 1993   (d) 1st April, 1999

Ans. (d) : Swarn Jayanti Gram Swarojgar Yojana was started on 1 April 1999. It was a rural development scheme of government of India to enhance the lives of those who fall under the below poverty line.

93. Who was the first person to step root on the Moon?

(a) Neil Armstrong

(b) Harrison Hagan Schmitt

(c) Charles M. Duke

(d) David R. Scott

Ans. (a) : Neil Armstrong was the first human to walk on the surface of the moon. On 20 July 1969 Armstrong stepped out from his Apolo 11 lunar module.

94. Where the Lal Bahadur Shastri National Academy of Administration is located?

(a) Shimla   (b) Delhi

(c) Ooty   (d) Mussorrie

Ans. (d) : Lal Bahadur Shastri national Academy of Administration is situated in Mussorrie (Uttarakhand).

95. Which place is known as 'Manchester of Japan'?

(a) Tokyo   (b) Kyoto

(c) Osaka   (d) None of these

Ans. (c) : Japan's Osaka city is called as Manchester of Japan because of its rich textile industries.

96. Which party got a maximum number of seats during 2019 Lok Sabha elections?

(a) BJP   (b) INC

(c) AAP   (d) NCP

Ans. (a) : In 2019, 17th loksabha election, Bhartiya Janta party (B.J.P) won 303 seats and formed government again Narendra Modi became Prime minister.

97. Who is the leader of Ruling Party in the Lok Sabha?

(a) Prime Minister

(b) President

(c) Speaker of Lok Sabha

(d) All of these

Ans. (a) : Prime Minister Narendra Modi is the leader of ruling party in the Lok Sabha since 2014.

98. Acquit means

(a) Imprisonment give to victim

(b) Court declaring not guilty

(c) Both (a) and (b)

(d) None of the above

Ans. (b) : Acquit means free from a criminal charge by a verdict of not guilty.

99. Wearing a .... is central to a Sikh's religious practice.

(a) Pugri   (b) Suit

(c) Jacket   (d) All of these

Ans. (a) : Wearing a pugri is central to a Sikh's religious practice.

100. **Who designed New Delhi?**

    (a) Herbert Spencer and Charles Darwin

    (b) Herbert Baker and Edward Lutyens

    (c) Herbert Spencer and M. Visvesvaraya

    (d) none of the above

Ans. (b) : British architects Edwin Lutyens and Herbert Baker designed new Delhi. often that New Delhi became capital of India from Kolkata.

MATHEMATICS

101. **The value of (–10/3) × (–15/2) × (17/19) × 0 is**

    (a) 0   (b) 22.66

    (c) 20   (d) 35

Ans. (a) : Given:-

$$\left(-\frac{10}{3}\right) \times \left(-\frac{15}{2}\right) \times \left(\frac{17}{19}\right) \times 0$$

$$= \frac{150}{6} \times \frac{17}{19} \times 0$$

$$= 0$$

Hence, option (a) is correct answer.

102. **What least number must be subtracted from 7250 to get a perfect square?**

    (a) 22   (b) 23

    (c) 25   (d) 24

Ans. (c) : Given :- 7250

According to the question:-

```
        85
   8 | 7250
     | −64
  165| 850
     | −825
     |  25
```

∴ 25 is least no. that is subtracted from = 7250 – 25

                                   = 7225

                                   $= (85)^2$

Hence, option (c) is the correct answer.

103. $x^2 – 2x + 1$ **is a polynomial in**

    (a) One Variable   (b) Two variables

    (c) Three variables   (d) None of these

Ans. (b) : Given–

    $x^2 – 2x + 1$

Let Polynomial $P(x) = x^2 – 2x + 1$

Variable → It is a quantity which changes with situation

$P(x) = x^2 – 2x + 1$

at   x = 1

$P(1) = 1^2 – 2(1) + 1$

       = 0

at   x = 2

$P(2) = (2)^2 – 2(2) + 1$

       = 1

So that the given polynomial two variables.

Hence, option (b) is correct option.

104. **If p (x) = x + 3, then p (x) + p(–x) is equal to**

    (a) 3   (b) 2x

    (c) 0   (d) 6

Ans. (d) : Given–

$P(x) = x + 3$

Here $P(–x) = –x + 3$

According to question

       $P(x) + P(–x)$

       = x + 3 + (–x + 3)

       = 6

Hence, option (d) is correct option.

105. **A number ending in 9 will have the unit place of its square as**

    (a) 3   (b) 9

    (c) 1   (d) 6

Ans. (c) : Given, a number ends in 9.

The square of a number having 1 or 9 at the unit's place ends in 1.

Therefore, a number ending in 9 will have the units place at its square as 1.

Hence, option (c) is correct answer.

106. **The square root of 5.3 × 5.3 is**

    (a) 5.29   (b) 2.3

    (c) 5.3   (d) 28.09

Ans. (c) : Given-

     5.3 × 5.3

Hence, square root of 5.3 × 5.3

     $= \sqrt{5.3 \times 5.3}$

     = 5.3

Hence option (c) is correct answer.

107. **Rational number lying between 2 and 3 is/are**

    (a) 5/2   (b) 11/4

    (c) Both (a) and (b)   (d) Neither (a) nor (b)

Ans. (c) : $2 < \frac{5}{2} < \frac{11}{4} < 3$

Hence, both (a) and (b) are lying between 2 & 3.

108. **In a frequency distribution, the mid value of a class is 10 and the width of the class is 6. The lower limit of the class is**

    (a) 6   (b) 7

    (c) 8   (d) 12

Ans. (b) : Given,

The mid value of the class = 10

The width of the class = 6

Let x is the lower limit of the class

$\therefore$ the mid value of class = $\dfrac{x + (x + 6)}{2} = 10$

$\qquad$ 2x + 6 = 20

$\qquad$ 2x = 14

$\qquad$ $\boxed{x = 7}$

$\therefore$ The lower limit of the class = 7

109. The equation y = 5, in two variables can be written as

(a) $1.x + 1.y = 5$ (b) $0.x + 0.y = 5$

(c) $1.x + 0.y = 5$ (d) $0.x + 1.y = 5$

Ans. (d) : From option (d)

The equation y = 5 in two variable can be written as–

$\qquad$ (0).x + (1).y = 5

$\qquad$ $0 + 1 \times 5 = 5$

$\qquad$ $\boxed{5 = 5}$

Therefore, (0)x + (1)y = 5 is the correct answer.

110. Which of the following is the numerical coefficient of x^2y^2?

(a) 0   (b) 1

(c) x^2 (d) y^2

Ans. (b) : $x^2 . y^2 \Rightarrow 1 \times x^2 y^2$

$\qquad$ ($\because$ x and y are variables, 1 is the coefficient)

$\therefore$ The numerical coefficient of x^2y^2 is 1.

111. The value of $(x + y)(x - y) + (y - z)(y + z) + (z - x)(z + x)$ is equal to

(a) $3x^2$ (b) $3y^2$

(c) $3z^2$ (d) 0

Ans. (d) : Given equation-

= (x + y)(x − y) + (y − z)(y + z) + (z − x)(z + x)

= $(x^2 - y^2) + (y^2 - z^2) + (z^2 - x^2)$

= $x^2 - y^2 + y^2 - z^2 + z^2 - x^2$ [$\because (a-b)(a+b) = a^2-b^2)$]

= 0

112. What is the radius of the largest circle that can be cut out of the rectangle measuring 10 cm in length and 8 cm in breadth?

(a) 4 cm   (b) 5 cm

(c) 8 cm   (d) 10 cm

Ans. (a) : Given,

the rectangle 's' dimensions = 10 cm

breadth = 8 cm

$\therefore$ r = $\dfrac{8}{2}$ ($\because$ The circle's diameter will be equal

$\qquad\qquad\qquad\qquad$ to the smaller dimension)

r = 4 cm

$\therefore$ The radius of the largest circle that can be cut out of the rectangle is 4 cm.

113. Ramesh bought an air cooler for ₹3300 including a tax of 10%. The price of the air cooler before adding tax was

(a) ₹2000   (b) ₹3000

(c) ₹2500   (d) ₹2800

Ans. (b) : Let be the price of Air cooler = x

After 10% tax cost of cooler = $x + \dfrac{10x}{100} = \dfrac{11x}{10}$

According to the question,

$\qquad$ $\dfrac{11x}{10} = 3300$

$\qquad$ $11x = 3300 \times 10$

$\qquad$ $x = \dfrac{3300 \times 10}{11}$

$\qquad$ $\boxed{x = ₹3000}$

Therefore the price of Air cooler before tax was Rs. 3000.

114. The Pythagorean triplets, whose smallest number is 8, are

(a) 8, 16, 17   (b) 8, 17, 18

(c) 8, 15, 17   (d) 8, 15, 16

Ans. (c) : Let the Pythagorean triplets be

2m, m^2-1, m^2+1

Take   2m = 8

$\therefore$ m = 4

Now,

$\qquad$ $m^2 - 1 = 4^2 - 1 = 15$

$\qquad$ $m^2 + 1 = 4^2 + 1 = 17$

Hence, the Pythagorean triplet is 8, 15, 17.

115. If (7/3)% of a number is 42, then the number is

(a) 9800   (b) 8

(c) 1800   (d) 180

Ans. (c) : Let be the number = x

According to the question-

$\qquad$ $x \times \left(\dfrac{7}{3}\right)\% = 42$

$\qquad$ $x \times \dfrac{7}{3} \times \dfrac{1}{100} = 42$

$\qquad$ $x = \dfrac{42 \times 100 \times 3}{7}$

$\qquad$ $\boxed{x = 1800}$

Hence, the required number is 1800.

116. The area of a square is 100 cm². The circumference (in cm) of the largest circle cut of it is

(a) $\dfrac{110}{7}$ (b) $\dfrac{220}{7}$

(c) $\dfrac{330}{7}$ (d) 20

Ans. (b) : Area of square = $a^2 = 100$ cm²

∴ Side = a = 10 cm

Radius of largest circle = $\dfrac{10}{2} = 5$ cm

Circumference of circle = $2\pi r$

$$= 2 \times \dfrac{22}{7} \times 5 = \dfrac{220}{7} \text{ cm}$$

117. A labourer is paid ₹806 for 13 days of work. If he receives ₹1798, for how many days did he work?

(a) 29   (b) 35

(c) 60   (d) 40

Ans. (a) : According to the question–

Paid for 13 days = ₹806

Paid for 1 days = $\dfrac{806}{13} = 62$

∴ $\dfrac{1798}{62} = 29$ days

Hence, Labour works for 29 days.

118. The factorization of 1 + p + q + r + pq + qr + pr + pqr is

(a) $(1 + p)(1 + q)(1 + r)$ (b) $(1 - p)(1 - q)(1 - r)$

(c) $(1 - p)(1 - q)(1 + r)$ (d) $(1 + p)(1 - q)(1 - r)$

Ans. (a) : Given

$\qquad 1 + p + q + r + pq + qr + pr + pqr$

On factorization

$\qquad 1(1 + p) + q(1 + p) + r(1 + q) + pr(1 + q)$

$= (1 + p)(1 + q) + (1 + q)(r + pr)$

$= (1 + p)(1 + q) + r(1 + q)(1 + p)$

$= (1 + p)(1 + q)(1 + r)$

Hence, $1 + p + q + r + pq + qr + pr + pqr = (1 + p)(1 + q)(1 + r)$

119. What is the probability of choosing a vowel from the alphabets?

(a) $\dfrac{21}{26}$ (b) $\dfrac{5}{26}$

(c) $\dfrac{1}{26}$ (d) $\dfrac{3}{26}$

Ans. (b) : Total Numbers in the alphabet = 26

Total Vowels in the alphabet = 5

Probability = $\dfrac{\text{Number of favorable out comes}}{\text{Total number of out comes}}$

P = $\dfrac{5}{26}$

The probability of choosing a vowel from the alphabet is $\dfrac{5}{26}$.

120. The factors of $x^2 - 4$ are

(a) $(x - 2)(x - 2)$ (b) $(x + 2)(x - 2)$

(c) $(x + 2)(x + 2)$ (d) $(x - 4)(x - 4)$

Ans. (b) : The Given equation,

$\qquad x^2 - 4$

$= (x)^2 - (2)^2$

$= (x - 2)(x + 2) \qquad [\because a^2 - b^2 = (a + b)(a - b)]$

121. What could be the possible one's digit of the square root of 676?

(a) 4, 6   (b) 5, 7

(c) 1, 8   (d) 2, 9

Ans. (a) : Square root of 676 = $\sqrt{676}$ = 26

the square of numbers ending in 4 and 6 can result in a unit digit of 6. Hence option (a) is the correct answer.

122. 100 persons had food provision for 24 days. If 20 persons left the place, the provision will last for

(a) 30 days   (b) $\dfrac{96}{5}$ days

(c) 120 days   (d) 40 days

Ans. (a) : Let the food left for x days.

According to the question,

$\qquad 100 \times 24 = 80 \times x$

$\qquad x = \dfrac{100 \times 24}{80}$

$\qquad x = 30$ days

123. The width of each of five continuous classes in a frequency distribution is 5 and the lower class-limit of the lowest class is 10. The upper class-limit of the highest class is

(a) 15   (b) 25

(c) 35   (d) 40

Ans. (c) : Given that-

Lower class limit of the lowest class = 10

Frequency distribution = 5