VLYMBOOQ · FULL-LENGTH MOCK PAPER

Agniveer (Indian Army) - Common Entrance Examination (Full Paper)

50 questions · 100 marks · 60 minutes

Paper pattern

Exam: Agniveer (Indian Army) - Common Entrance Examination (Full Paper)
Questions: 50 Marks: 100 Time: 60 minutes
Negative marking: -0.25 marks per wrong answer
Source: Indian Army Agniveer CEE: 50 questions, 100 marks, 60 minutes; GK 15, Maths 15, Science 10, Reasoning 10.
Generated: 2026-11-07T02:25:28.222Z By: reviewed question bank

Sections

General Knowledge - 15 questions, 30 marks
Mathematics - 15 questions, 30 marks
Science - 10 questions, 20 marks
Reasoning - 10 questions, 20 marks

Instructions

The timer is for practice; the real paper allows 60 minutes.
Each question has exactly one correct option.
Negative marking: -0.25 marks per wrong answer.
The answer key and a full explanation for every question follow the paper.
Model-generated questions are marked as such in the HTML page; verify any factual detail against the official notification.

General Knowledge

Q1. Who wrote the Indian national song 'Vande Mataram'?

A. Rabindranath Tagore
B. Bankim Chandra Chatterjee
C. Mohammad Iqbal
D. Subramania Bharati

Q2. Who wrote the famous Indian epic 'Mahabharata'?

A. Valmiki
B. Ved Vyasa
C. Tulsidas
D. Kalidasa

Q3. The term 'Deuce' is associated with which sport?

A. Badminton
B. Tennis
C. Cricket
D. Hockey

Q4. Great Barrier Reef near which country?

A. Indonesia
B. Australia
C. Philippines
D. Fiji

Q5. Which article of the Indian Constitution grants the 'Right to Equality'?

A. Article 19
B. Article 14
C. Article 21
D. Article 32

Q6. Which bridge in India is known as the 'Gateway of Bengal'?

A. Howrah Bridge
B. Vidyasagar Setu
C. Pamban Bridge
D. Mahatma Gandhi Setu

Q7. Which Indian state is the largest producer of coffee?

A. Tamil Nadu
B. Karnataka
C. Kerala
D. Andhra Pradesh

Q8. Who was the founder of the Indian National Congress?

A. A.O. Hume
B. Mahatma Gandhi
C. Jawaharlal Nehru
D. Subhas Chandra Bose

Q9. Who was the founder of the Maurya Empire?

A. Bindusara
B. Ashoka
C. Chandragupta Maurya
D. Samudragupta

Q10. Which mountain range is the oldest in India?

A. Himalayas
B. Aravallis
C. Vindhyas
D. Western Ghats

Q11. Which river is the longest in India?

A. Ganga
B. Brahmaputra
C. Yamuna
D. Godavari

Q12. Which Mughal emperor built the Taj Mahal?

A. Akbar
B. Aurangzeb
C. Shah Jahan
D. Jahangir

Q13. Who is the founder of the company 'Amazon'?

A. Jeff Bezos
B. Bill Gates
C. Mark Zuckerberg
D. Elon Musk

Q14. What is the largest desert in the world?

A. Sahara Desert
B. Gobi Desert
C. Antarctic Desert
D. Arabian Desert

Q15. Newton's First Law of Motion is also known as the law of:

A. Acceleration
B. Inertia
C. Action-Reaction
D. Gravitation

Mathematics

Q16. In a bar graph, the bar for 2020 is 6 cm tall representing a value of 300. What value does a 10 cm bar represent?

A. 400
B. 450
C. 480
D. 500

Q17. In what ratio must water be mixed with milk costing Rs. 24 per litre to get a mixture worth Rs. 18 per litre?

A. 1:3
B. 1:2
C. 2:3
D. 1:4

Q18. Three bells ring at intervals of 4, 6, and 10 seconds. They start ringing together. After how many seconds will they ring together again?

A. 30
B. 40
C. 50
D. 60

Q19. The HCF of two numbers is 12 and their LCM is 360. If one number is 60, find the other.

A. 72
B. 84
C. 96
D. 108

Q20. A and B together can do a work in 12 days. B alone can do it in 20 days. In how many days can A alone do it?

A. 24
B. 25
C. 30
D. 32

Q21. A man cycles at 12 km/h for 30 minutes and then at 8 km/h for next 45 minutes. Find average speed.

A. 9 km/h
B. 9.2 km/h
C. 9.6 km/h
D. 10 km/h

Q22. A man rows downstream 24 km in 4 hours and upstream 12 km in 6 hours. Find the speed of the stream.

A. 1.5 km/h
B. 2 km/h
C. 1 km/h
D. 2.5 km/h

Q23. If the sum of the first 'n' odd natural numbers is 225, then what is the value of 'n'?

A. 10
B. 12
C. 15
D. 20

Q24. What is the value of x in the equation 2x - 5 = 11?

A. 7
B. 8
C. 9
D. 10

Q25. The average of 10 numbers is 15. Each number is multiplied by 2. Find the new average.

A. 15
B. 20
C. 30
D. 25

Q26. A shopkeeper sells an item for Rs. 800 after giving a discount of 20% on its marked price. What is the marked price of the item?

A. Rs. 960
B. Rs. 1000
C. Rs. 900
D. Rs. 1020

Q27. 10 men can complete a work in 20 days. They start work and after 5 days, 5 more men join. How many more days to finish?

A. 8
B. 9
C. 10
D. 12

Q28. What is the value of (a+b)^2 - (a-b)^2?

A. 2ab
B. 4ab
C. ab
D. 8ab

Q29. What is the greatest number that divides 101 and 75 leaving remainders 3 and 5 respectively?

A. 10
B. 12
C. 14
D. 16

Q30. Find the area of a triangle with base 12 cm and height 8 cm.

A. 40 cm²
B. 44 cm²
C. 48 cm²
D. 52 cm²

Science

Q31. The work done when force is applied at right angles to displacement is:

A. Maximum
B. Zero
C. Negative
D. Infinite

Q32. Which part of the human body is responsible for filtering blood and producing urine?

A. Liver
B. Lungs
C. Kidneys
D. Heart

Q33. Which element is essential for the formation of haemoglobin?

A. Calcium
B. Iron
C. Iodine
D. Potassium

Q34. Which part of the human body is responsible for filtering blood and producing urine?

A. Liver
B. Lungs
C. Kidneys
D. Heart

Q35. What is the SI unit of electric current?

A. Volt
B. Ohm
C. Ampere
D. Watt

Q36. Which vitamin is known as retinol?

A. Vitamin A
B. Vitamin B1
C. Vitamin C
D. Vitamin D

Q37. What is the chemical formula of methane?

A. CH4
B. C2H6
C. CO2
D. C2H4

Q38. Which plant hormone promotes growth?

A. Auxin
B. Gibberellin
C. Cytokinin
D. Ethylene

Q39. Which element is represented by the symbol ‘Na’?

A. Neon
B. Sodium
C. Nickel
D. Niobium

Q40. What is the process by which plants make their own food?

A. Respiration
B. Photosynthesis
C. Decomposition
D. Fermentation

Reasoning

Q41. If A is the father of B and C is the mother of B, what is the relationship between A and C?

A. Brother and Sister
B. Husband and Wife
C. Father and Daughter
D. Mother and Son

Q42. In a code, '123' means 'bright sunny day', '245' means 'day is warm', '356' means 'sunny is bright'. Which digit stands for 'warm'?

A. 2
B. 4
C. 5
D. 3

Q43. P is father of Q. Q is mother of R. R is sister of S. How is P related to S?

A. Father
B. Grandfather
C. Uncle
D. Brother

Q44. Find the odd one out: 27, 64, 125, 216, 300

A. 27
B. 64
C. 125
D. 300

Q45. Find next: 0, 3, 8, 15, 24, ?

A. 35
B. 33
C. 36
D. 30

Q46. If "WORLD" is coded as "YQTNF", find "PEACE".

A. RGCEG
B. RGCEF
C. RFDFH
D. RGCDG

Q47. How many times in 24 hours do hands form a straight line (180 deg)?

A. 22
B. 24
C. 44
D. 11

Q48. Family has 2 children. One is a boy. Probability the other is also a boy?

A. 1/2
B. 1/3
C. 1/4
D. 2/3

Q49. If A is the father of B and C is the mother of B, what is the relationship between A and C?

A. Brother and Sister
B. Husband and Wife
C. Father and Daughter
D. Mother and Son

Q50. In a certain code, 'ROAD' is written as 'SPBE'. How is 'LANE' written in that code?

A. MBOF
B. NCPG
C. LZMD
D. MCPF

Answer key

Q1 B	**Q2 B**	**Q3 B**	**Q4 B**
Q5 B	**Q6 C**	**Q7 B**	**Q8 A**
Q9 C	**Q10 B**	**Q11 A**	**Q12 C**
Q13 A	**Q14 C**	**Q15 B**	**Q16 D**
Q17 A	**Q18 D**	**Q19 A**	**Q20 C**
Q21 C	**Q22 B**	**Q23 C**	**Q24 B**
Q25 C	**Q26 B**	**Q27 C**	**Q28 B**
Q29 C	**Q30 C**	**Q31 B**	**Q32 C**
Q33 B	**Q34 C**	**Q35 C**	**Q36 A**
Q37 A	**Q38 A**	**Q39 B**	**Q40 B**
Q41 B	**Q42 B**	**Q43 B**	**Q44 D**
Q45 A	**Q46 A**	**Q47 C**	**Q48 A**
Q49 B	**Q50 A**		

Solutions and explanations

Q1. Who wrote the Indian national song 'Vande Mataram'?
Answer: B
Bankim Chandra Chatterjee wrote 'Vande Mataram' in 1876, published in his novel 'Anandamath'.

Q2. Who wrote the famous Indian epic 'Mahabharata'?
Answer: B
Ved Vyasa is traditionally credited as the author of the Mahabharata, one of the longest epic poems in the world.

Q3. The term 'Deuce' is associated with which sport?
Answer: B
Correct answer: Tennis.

Q4. Great Barrier Reef near which country?
Answer: B
Correct answer: Australia.

Q5. Which article of the Indian Constitution grants the 'Right to Equality'?
Answer: B
Step 1: The Right to Equality is covered under Articles 14 to 18 of the Indian Constitution.Step 2: Article 14 specifically states: 'The State shall not deny to any person equality before the law or the equal protection of the laws within the territory of India.'Shortcut Trick: Remember the Fundamental Rights with the mnemonic '14-18 Equality, 19-22 Freedom, 23-24 Against Exploitation, 25-28 Religious Freedom, 29-30 Cultural, 32 Constitutional Remedies'. Article 14 = starting point of equality - think '14 = for Equality'.Detailed Breakdown of Right to Equality:- Article 14: Equality before law- Article 15: Prohibition of discrimination- Article 16: Equality of opportunity in public employment- Article 17: Abolition of untouchability- Article 18: Abolition of titlesCommon Mistake: Articles 19, 21, and 32 are very famous but belong to different rights. Article 19 = Right to Freedom (speech, expression), Article 21 = Right to Life, Article 32 = Right to Constitutional Remedies (heart and soul of the Constitution per Dr. Ambedkar).

Q6. Which bridge in India is known as the 'Gateway of Bengal'?
Answer: C
Howrah Bridge (officially Rabindra Setu) is known as the 'Gateway of Bengal', connecting Howrah and Kolkata.

Q7. Which Indian state is the largest producer of coffee?
Answer: B
Karnataka is the largest producer of coffee in India, accounting for over 70% of the country's coffee production.

Q8. Who was the founder of the Indian National Congress?
Answer: A
A.O. Hume was the founder of the Indian National Congress, which was established in 1885.

Q9. Who was the founder of the Maurya Empire?
Answer: C
Step 1: The Maurya Empire was founded by Chandragupta Maurya around 322 BCE after he overthrew the Nanda dynasty with the guidance of his mentor Chanakya (also known as Kautilya or Vishnugupta).Shortcut Trick: Remember the chronological order: 'Chandra -> Bindu -> Ashoka' (Grandfather -> Son -> Grandson). Chandragupta = founder; Bindusara = his son (expanded empire); Ashoka = grandson (greatest Maurya ruler).Key Fact: Chanakya authored the Arthashastra and was instrumental in Chandragupta's rise to power. The Maurya Empire was the largest empire in ancient India.Common Mistake: Students confuse Chandragupta Maurya (founder of Maurya) with Chandragupta I (founder of Gupta dynasty). Remember: Maurya = Chandragupta Maurya (322 BCE); Gupta = Chandragupta I (320 CE) - nearly 650 years apart!

Q10. Which mountain range is the oldest in India?
Answer: B
Correct answer: Aravallis.

Q11. Which river is the longest in India?
Answer: A
The Ganga is the longest river in India, stretching approximately 2,525 kilometers from its source in the Himalayas to its delta in the Bay of Bengal.

Q12. Which Mughal emperor built the Taj Mahal?
Answer: C
Shah Jahan built the Taj Mahal between 1631 and 1648 in memory of his wife Mumtaz Mahal.

Q13. Who is the founder of the company 'Amazon'?
Answer: A
Jeff Bezos is the founder of Amazon, which he initially started as an online bookstore in 1994.

Q14. What is the largest desert in the world?
Answer: C
The Antarctic Desert is the largest desert in the world, covering about 14 million square kilometers.

Q15. Newton's First Law of Motion is also known as the law of:
Answer: B
Correct answer: Inertia.

Q16. In a bar graph, the bar for 2020 is 6 cm tall representing a value of 300. What value does a 10 cm bar represent?
Answer: D
Scale = 300/6 = 50 per cm. For 10 cm: 10 x 50 = 500.

Q17. In what ratio must water be mixed with milk costing Rs. 24 per litre to get a mixture worth Rs. 18 per litre?
Answer: A
Correct answer: 1:3.

Q18. Three bells ring at intervals of 4, 6, and 10 seconds. They start ringing together. After how many seconds will they ring together again?
Answer: D
LCM of 4, 6, and 10 = 60. They will ring together every 60 seconds.

Q19. The HCF of two numbers is 12 and their LCM is 360. If one number is 60, find the other.
Answer: A
Correct answer: 72.

Q20. A and B together can do a work in 12 days. B alone can do it in 20 days. In how many days can A alone do it?
Answer: C
A+B 1-day work = 1/12. B's 1-day = 1/20. A's 1-day = 1/12-1/20 = 5/60-3/60 = 2/60 = 1/30. A takes 30 days.

Q21. A man cycles at 12 km/h for 30 minutes and then at 8 km/h for next 45 minutes. Find average speed.
Answer: C
D1 = 12 x 0.5 = 6 km. D2 = 8 x 0.75 = 6 km. Total D = 12 km. Total T = 1.25 h. Avg speed = 12/1.25 = 9.6 km/h.

Q22. A man rows downstream 24 km in 4 hours and upstream 12 km in 6 hours. Find the speed of the stream.
Answer: B
Correct answer: 2 km/h.

Q23. If the sum of the first 'n' odd natural numbers is 225, then what is the value of 'n'?
Answer: C
Step 1: Recall the formula - sum of the first n odd natural numbers = n^2. For example: 1 = 1^2, 1+3 = 4 = 2^2, 1+3+5 = 9 = 3^2, etc. Step 2: Given sum = 225. So n^2 = 225. Step 3: Take the square root: n = sqrt225 = 15. Shortcut Trick: Learn the squares from 1 to 30. 225 is 15 squared - instantly tells you n = 15. No calculation needed if you know that 15^2 = 225 and 16^2 = 256. Alternative Method: The nth odd number is (2n-1). Sum of first n odd numbers = n^2 (this is a fixed result - memorize it!). Common Mistake: Some students use the formula for sum of n natural numbers (n(n+1)/2) instead of the odd number formula, getting the wrong answer. Always check: 'odd natural numbers' -> n^2; 'natural numbers' -> n(n+1)/2.

Q24. What is the value of x in the equation 2x - 5 = 11?
Answer: B
To find the value of x, add 5 to both sides of the equation: 2x = 11 + 5, 2x = 16, x = 16/2, x = 8.

Q25. The average of 10 numbers is 15. Each number is multiplied by 2. Find the new average.
Answer: C
If each number is multiplied by k, average also gets multiplied by k. New avg = 15x2 = 30.

Q26. A shopkeeper sells an item for Rs. 800 after giving a discount of 20% on its marked price. What is the marked price of the item?
Answer: B
Method 1 (Algebra): Let MP = x. 20% discount means SP = 80% of MP. So 0.80x = 800. x = 800/0.80 = Rs. 1000. Method 2 (Unitary - Shortcut): If SP after 20% discount is Rs. 800, then 80% of MP = 800. So 1% of MP = 800/80 = 10. Therefore 100% (MP) = 10 x 100 = Rs. 1000. Super Shortcut (1-Step): MP = SP x 100/(100 - discount%). MP = 800 x 100/80 = 800 x 5/4 = Rs. 1000. Just divide SP by (100 - discount%) and multiply by 100. Verification: 20% of 1000 = 200. SP = 1000 - 200 = 800 OK Common Mistake: Students often subtract 20% of 800 (160) and add it back, getting 960. Wrong! The discount is calculated on MP, not on SP. Always work with the formula: SP = MP x (100 - d%)/100.

Q27. 10 men can complete a work in 20 days. They start work and after 5 days, 5 more men join. How many more days to finish?
Answer: C
Total work = 10x20 = 200 man-days. Work done in 5 days = 10x5 = 50. Remaining = 150. Men now = 15. Days = 150/15 = 10.

Q28. What is the value of (a+b)^2 - (a-b)^2?
Answer: B
(a+b)^2-(a-b)^2 = (a^2+2ab+b^2)-(a^2-2ab+b^2) = 4ab.

Q29. What is the greatest number that divides 101 and 75 leaving remainders 3 and 5 respectively?
Answer: C
101-3=98, 75-5=70. Required number = HCF(98,70). 98=2x7^2, 70=2x5x7. HCF = 2x7 = 14.

Q30. Find the area of a triangle with base 12 cm and height 8 cm.
Answer: C
Area = (1/2) x base x height = (1/2) x 12 x 8 = 48 cm².

Q31. The work done when force is applied at right angles to displacement is:
Answer: B
Work = Fd cosθ. When θ = 90°, cosθ = 0, so work = 0.

Q32. Which part of the human body is responsible for filtering blood and producing urine?
Answer: C
Step 1: The kidneys are bean-shaped organs located on either side of the spine, just below the rib cage. Step 2: Each kidney contains about 1 million nephrons (filtering units). They filter ~180 liters of blood daily to produce ~1.5-2 liters of urine. Step 3: The urine then travels through the ureters to the bladder for storage and is excreted via the urethra. Shortcut Trick: 'KIDneys = KID-ney filters'. The word 'renal' = related to kidneys. Remember the urinary system pathway: 'KUBU' - Kidneys -> Ureters -> Bladder -> Urethra. Organ Function Summary: - Kidneys: Filter blood -> produce urine - Liver: Produces bile, detoxifies blood, stores glycogen - Lungs: Gas exchange (O in, CO out) - Heart: Pumps blood throughout the body Common Mistake: The liver also filters blood, but it filters toxins and produces bile - it does NOT produce urine. The liver processes waste for excretion as bile (digestive waste), while kidneys produce urine (metabolic waste from blood filtration).

Q33. Which element is essential for the formation of haemoglobin?
Answer: B
Iron is a key component of haemoglobin, the protein in red blood cells that carries oxygen.

Q34. Which part of the human body is responsible for filtering blood and producing urine?
Answer: C
Step 1: The kidneys are bean-shaped organs located on either side of the spine, just below the rib cage. Step 2: Each kidney contains about 1 million nephrons (filtering units). They filter ~180 liters of blood daily to produce ~1.5-2 liters of urine. Step 3: The urine then travels through the ureters to the bladder for storage and is excreted via the urethra. Shortcut Trick: 'KIDneys = KID-ney filters'. The word 'renal' = related to kidneys. Remember the urinary system pathway: 'KUBU' - Kidneys -> Ureters -> Bladder -> Urethra. Organ Function Summary: - Kidneys: Filter blood -> produce urine - Liver: Produces bile, detoxifies blood, stores glycogen - Lungs: Gas exchange (O in, CO out) - Heart: Pumps blood throughout the body Common Mistake: The liver also filters blood, but it filters toxins and produces bile - it does NOT produce urine. The liver processes waste for excretion as bile (digestive waste), while kidneys produce urine (metabolic waste from blood filtration).

Q35. What is the SI unit of electric current?
Answer: C
Step 1: The SI unit of electric current is the Ampere (symbol: A). Step 2: 1 Ampere = flow of 1 Coulomb of charge per second through a conductor. Shortcut Trick: Remember the SI units with the mnemonic 'VOW CA' - Volt (potential), Ohm (resistance), Watt (power) - and then Current = Ampere. Or simpler: 'Current is measured in Amps' -> 'A for Ampere, A for Amps'. Complete SI Unit Table for Electricity: - Current: Ampere (A) - Potential Difference: Volt (V) - Resistance: Ohm () - Power: Watt (W) - Charge: Coulomb (C) - Conductance: Siemens (S) Common Mistake: 'Current is measured in Amperes' but many confuse it with Volts. Remember: Current = flow of electrons (Amps). Voltage = push/pull that causes flow (Volts). Think of a water pipe: current = water flow (Amps), voltage = water pressure (Volts).

Q36. Which vitamin is known as retinol?
Answer: A
Retinol is the animal form of Vitamin A, essential for vision and immune function.

Q37. What is the chemical formula of methane?
Answer: A
Methane (CH4) is the simplest hydrocarbon with one carbon atom bonded to four hydrogen atoms.

Q38. Which plant hormone promotes growth?
Answer: A
Auxin is a plant hormone that regulates cell elongation, phototropism, and growth.

Q39. Which element is represented by the symbol ‘Na’?
Answer: B
Na is the symbol for Sodium, derived from Latin ‘Natrium’.

Q40. What is the process by which plants make their own food?
Answer: B
Photosynthesis is the process by which plants, algae, and some bacteria convert light energy, usually from the sun, into chemical energy stored in glucose.

Q41. If A is the father of B and C is the mother of B, what is the relationship between A and C?
Answer: B
Given that A is the father of B and C is the mother of B, it implies that A and C are married, hence they are husband and wife.

Q42. In a code, '123' means 'bright sunny day', '245' means 'day is warm', '356' means 'sunny is bright'. Which digit stands for 'warm'?
Answer: B
Common between 123 and 356: 3=sunny. Common between 245 and 356: 5=is. So 123: 1=bright, 2=day. 245: 4=warm.

Q43. P is father of Q. Q is mother of R. R is sister of S. How is P related to S?
Answer: B
P->Q->R,S. P is grandfather of S.

Q44. Find the odd one out: 27, 64, 125, 216, 300
Answer: D
27=3^3, 64=4^3, 125=5^3, 216=6^3. 300 is not a perfect cube.

Q45. Find next: 0, 3, 8, 15, 24, ?
Answer: A
1^2-1=0, 2^2-1=3, 3^2-1=8, 4^2-1=15, 5^2-1=24, 6^2-1=35.

Q46. If "WORLD" is coded as "YQTNF", find "PEACE".
Answer: A
Correct answer: RGCEG.

Q47. How many times in 24 hours do hands form a straight line (180 deg)?
Answer: C
22 times in 12 hours, so 44 times in 24 hours.

Q48. Family has 2 children. One is a boy. Probability the other is also a boy?
Answer: A
Each child's gender is independent. P(other is boy) = 1/2.

Q49. If A is the father of B and C is the mother of B, what is the relationship between A and C?
Answer: B
Since A is the father of B and C is the mother of B, A and C must be husband and wife.

Q50. In a certain code, 'ROAD' is written as 'SPBE'. How is 'LANE' written in that code?
Answer: A
Each letter shifted by +1: R->S, O->P, A->B, D->E. L->M, A->B, N->O, E->F = MBOF.