

## TYBA COACHING CENTRE

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## RASHTRIYA MILITARY SCHOOLS (RMS / RMC)

## Common Entrance Test (CET) — Class VI Admission

Comprehensive 200 Questions Full-Length Test Series • Model Question Paper Code: A

| TEST BOOKLET CODE | TIME ALLOWED           | TOTAL QUESTIONS | MAXIMUM MARKS |
|-------------------|------------------------|-----------------|---------------|
| A                 | 2 Hr 30 Min (150 Mins) | 200 MCQs        | 200 Marks     |

|                                          |                                 |
|------------------------------------------|---------------------------------|
| Candidate Roll No.: <input type="text"/> | Examination Centre: _____       |
| Candidate's Name: _____                  | OMR Sheet Barcode No.: _____    |
| Signature of Candidate: _____            | Signature of Invigilator: _____ |

| Section     | Subject Name                        | Questions        | Max Marks | Merit Status                          |
|-------------|-------------------------------------|------------------|-----------|---------------------------------------|
| Section I   | English                             | Q. 1 to Q. 50    | 50 Marks  | Qualifying (Min 35% i.e. 17.5 Marks)* |
| Section II  | General Intelligence & Reasoning    | Q. 51 to Q. 100  | 50 Marks  | Counted in Final Merit                |
| Section III | Mathematics                         | Q. 101 to Q. 150 | 50 Marks  | Counted in Final Merit                |
| Section IV  | General Knowledge & Current Affairs | Q. 151 to Q. 200 | 50 Marks  | Counted in Final Merit                |
| GRAND TOTAL |                                     | 200 MCQs         | 200 Marks | *English is qualifying only           |

## GENERAL INSTRUCTIONS TO CANDIDATES

- This question booklet contains **200 multiple-choice questions** divided into 4 sections: Section I (English), Section II (Intelligence), Section III (Mathematics), and Section IV (General Knowledge).
- Each question carries **1 mark**. There is **no negative marking** for incorrect answers.
- Candidate must score a minimum of **35% marks (17.5 marks)** in Section I (English) to qualify. English marks are qualifying only and are not added to the final merit score.
- Mark your responses only on the separate optical mark reader (OMR) sheet using a **Blue or Black Ball Point Pen**. Completely darken the circle corresponding to the chosen option.
- Rough work should be done only in the designated margins. Hand over the OMR sheet to the invigilator at the end.

Qualifying Section (Minimum qualifying score: 17.5 out of 50 marks)

**Directions (Q. 1 to 5):** Read the passage carefully and answer the questions that follow:

*The armed forces of India have a proud and glorious tradition of valor, discipline, and dedication to the motherland. Among the unsung heroes of military operations are the trained canine soldiers of the Indian Army's Remount and Veterinary Corps. Highly intelligent breeds such as the Belgian Malinois and Labrador Retriever are trained in mine detection, tracking enemy combatants, guarding forward posts, and avalanche rescue operations in the rugged snow-capped peaks of the Himalayas. These four-legged warriors possess a sense of smell nearly forty times sharper than that of humans. During patrolling in high-altitude and counter-insurgency areas, military working dogs lead the assault columns, silently warning their handlers of hidden improvised explosive devices (IEDs) and concealed ambushes. Several brave canine soldiers, such as 'Phantom' and 'Axel', have laid down their lives in the line of duty and have been decorated with prestigious military commendations, including the Chief of the Army Staff Commendation Card. Their selfless service epitomizes unwavering loyalty and courage.*

1. Which corps of the Indian Army is responsible for training and managing military canine units?  
(A) Remount and Veterinary Corps (B) Army Ordnance Corps  
(C) Corps of Military Police (D) Army Service Corps
2. According to the passage, an army dog's sense of smell is roughly how much sharper than that of a human being?  
(A) Ten times (B) Forty times (C) Twenty times (D) One hundred times
3. What crucial task do military dogs perform while leading assault columns during patrols?  
(A) Carrying heavy weapon systems  
(B) Constructing military bunkers  
(C) Warning handlers of buried IEDs and ambushes  
(D) Transmitting radio signals to base
4. Which breed of dog is specifically mentioned in the passage as serving in rugged military terrains?  
(A) Pug (B) Dachshund (C) Bulldog (D) Belgian Malinois
5. In the passage, the word 'valor' most nearly means:  
(A) Fearfulness (B) Great courage and bravery  
(C) Carelessness (D) Cruelty

**Directions (Q. 6 to 10):** Read the passage carefully and answer the questions that follow:

*On 23rd August 2023, India etched its name in golden letters in the history of space exploration. The Indian Space Research Organisation (ISRO) successfully landed the Chandrayaan-3 lunar lander 'Vikram' on the unexplored south polar region of the Moon. With this extraordinary achievement, India became the first nation in the world to touch down near the Moon's south pole and only the fourth country to achieve a soft landing on the lunar surface, following the United States, the Soviet Union, and China. Shortly after touchdown, the solar-powered rover 'Pragyan' rolled out to study lunar soil composition, seismic activity, and surface temperatures. Scientists are keen to explore the south pole because its permanently shadowed craters contain substantial reserves of water ice. Water ice is a vital resource for establishing permanent*

human outposts, as it can be converted into drinking water, oxygen, and liquid rocket propellant. In celebration of this historic triumph, the Government of India designated August 23 as 'National Space Day'.

6. On which historic date did Chandrayaan-3 successfully make a soft landing on the Moon?  
(A) 15th August 2023      (B) 2nd October 2023      (C) 23rd August 2023      (D) 26th January 2024
7. What is the name of the solar-powered lunar rover deployed by the Vikram lander?  
(A) Pragyan      (B) Dhruv      (C) Aditya      (D) Mangal
8. Why is the Moon's south pole of paramount scientific interest for future space missions?  
(A) It has a warm climate suitable for agriculture  
(B) It has breathable atmospheric air  
(C) It has dense liquid oceans  
(D) Its shadowed craters contain significant reserves of water ice
9. India became which number of nation to successfully execute a soft landing on the Moon?  
(A) First      (B) Second      (C) Fourth      (D) Fifth
10. Which day has been officially declared as 'National Space Day' in India?  
(A) 23rd August      (B) 28th February      (C) 11th May      (D) 15th October
11. Fill in the blank: Major Dhyan Chand was \_\_\_\_\_ honest and disciplined sportsman.  
(A) a      (B) no article      (C) the      (D) an
12. Fill in the blank: \_\_\_\_\_ Himalayas protect our country from chilly northern winds.  
(A) A      (B) The      (C) An      (D) No article
13. Fill in the blank: The cadet wants to join \_\_\_\_\_ university in Delhi after graduation.  
(A) any      (B) an      (C) the      (D) a
14. Fill in the blank: Mount Everest is \_\_\_\_\_ highest mountain peak on Earth.  
(A) a      (B) an      (C) the      (D) no article
15. Fill in the blank: Iron is \_\_\_\_\_ extremely useful metal for industrial construction.  
(A) a      (B) an      (C) the      (D) no article
16. Fill in the blank: The brave soldier leaped \_\_\_\_\_ the roaring river to rescue the boy.  
(A) into      (B) on      (C) in      (D) upon
17. Fill in the blank: The troops have been stationed on the frontier \_\_\_\_\_ 2021.  
(A) since      (B) for      (C) from      (D) during
18. Fill in the blank: Distribute these apples equally \_\_\_\_\_ the two sisters.  
(A) among      (B) between      (C) with      (D) into
19. Fill in the blank: The morning physical training begins precisely \_\_\_\_\_ 6:00 AM.  
(A) in      (B) on      (C) at      (D) by
20. Fill in the blank: Captain Sharma is senior \_\_\_\_\_ all officers in this battalion.  
(A) than      (B) from      (C) with      (D) to

21. Fill in the blank: Make haste, \_\_\_\_\_ you will miss the morning military drill.  
 (A) and (B) or (C) but (D) so
22. Fill in the blank: He practiced tirelessly, \_\_\_\_\_ he could not secure the gold medal.  
 (A) so (B) because (C) yet (D) or
23. Fill in the blank: You will not clear the fitness test \_\_\_\_\_ you exercise daily.  
 (A) unless (B) if (C) since (D) as
24. Fill in the blank: Although the weather was stormy, \_\_\_\_\_ the pilots flew the relief mission.  
 (A) and (B) but (C) so (D) yet
25. Fill in the blank: Neither Rohit \_\_\_\_\_ his classmates were absent from the lecture.  
 (A) or (B) and (C) nor (D) also
26. Fill in the blank: The express train \_\_\_\_\_ the platform before we arrived.  
 (A) had left (B) has left (C) was leaving (D) leaves
27. Fill in the blank: Either the commander or his subordinates \_\_\_\_\_ present at the briefing.  
 (A) was (B) has been (C) is (D) were
28. Fill in the blank: The Earth \_\_\_\_\_ on its own axis from West to East.  
 (A) rotate (B) rotates (C) is rotating (D) rotated
29. Fill in the blank: Each of the cadets \_\_\_\_\_ awarded a merit certificate yesterday.  
 (A) are (B) were (C) have been (D) was
30. Choose the grammatically correct sentence from the options below:  
 (A) She do not likes to play football.  
 (B) She does not likes to play football.  
 (C) She does not like to play football.  
 (D) She not liking to play football.
31. Choose the correct synonym of the word 'COURAGEOUS':  
 (A) Timid (B) Valiant (C) Cautious (D) Hesitant
32. Choose the correct synonym of the word 'ANCIENT':  
 (A) Archaic / Very Old (B) Contemporary (C) Modern (D) Recent
33. Choose the correct synonym of the word 'SWIFT':  
 (A) Rapid (B) Sluggish (C) Clumsy (D) Heavy
34. Choose the correct synonym of the word 'ABUNDANT':  
 (A) Meager (B) Plentiful (C) Deficient (D) Scarce
35. Choose the correct synonym of the word 'IMMENSE':  
 (A) Tiny (B) Narrow (C) Huge / Vast (D) Fragile
36. Choose the correct antonym of the word 'VICTORY':  
 (A) Triumph (B) Success (C) Conquest (D) Defeat
37. Choose the correct antonym of the word 'GENEROUS':  
 (A) Charitable (B) Stingy / Miserly (C) Benevolent (D) Noble

38. Choose the correct antonym of the word 'RIGID':  
(A) Hard (B) Firm (C) Flexible (D) Solid
39. Choose the correct antonym of the word 'EXPAND':  
(A) Contract (B) Enlarge (C) Spread (D) Broaden
40. Choose the correct antonym of the word 'TRANSPARENT':  
(A) Clear (B) Lucid (C) Bright (D) Opaque
41. A person trained to travel in a spacecraft into outer space is known as an:  
(A) Astronomer (B) Astrologer (C) Astronaut (D) Anthropologist
42. The life history of a person written by that person himself/herself is called an:  
(A) Autobiography (B) Biography (C) Memoir (D) Chronicle
43. A large enclosure or cage for keeping birds is called an:  
(A) Apiary (B) Aquarium (C) Sanctuary (D) Aviary
44. A continuous period of ten calendar years is known as a:  
(A) Century (B) Decade (C) Millennium (D) Fortnight
45. The idiom 'Once in a blue moon' means:  
(A) Very frequently (B) At high altitude  
(C) During a full moon night (D) Happening very rarely
46. The idiom 'To spill the beans' means:  
(A) To drop groceries accidentally (B) To prepare a healthy meal  
(C) To reveal confidential information (D) To waste money
47. The idiom 'A piece of cake' signifies:  
(A) A festive dessert (B) Something very easy to accomplish  
(C) A complicated puzzle (D) A dangerous assignment
48. Select the option with the correctly spelt word:  
(A) Lieutenant (B) Lieutenent (C) Leftenant (D) Leutenant
49. Select the option with the correctly spelt word:  
(A) Necessary (B) Neccessary (C) Necenary (D) Necasary
50. Select the option with the correctly spelt word:  
(A) Disipline (B) Discipline (C) Descipline (D) Discepline

## SECTION II: GENERAL INTELLIGENCE & REASONING

Questions 51 to 100 • 50 Marks

Verbal & Non-Verbal Reasoning, Analogies, Series, Coding-Decoding, Blood Relations, and Spatial Orientation

51. Army : Soldier :: Navy : ?  
(A) Pilot (B) Captain (C) Sailor (D) Commando
52. India : New Delhi :: Japan : ?  
(A) Beijing (B) Bangkok (C) Seoul (D) Tokyo

**53. Doctor : Stethoscope :: Sculptor : ?**

- (A) Pen (B) Chisel (C) Microscope (D) Compass

**54. Cow : Calf :: Horse : ?**

- (A) Cub (B) Puppy (C) Colt / Foal (D) Kitten

**55. Thermometer : Temperature :: Barometer : ?**

- (A) Atmospheric Pressure (B) Humidity  
(C) Wind Speed (D) Earthquake

**56. Cricket : Pitch :: Boxing : ?**

- (A) Rink (B) Court (C) Track (D) Ring

**57. Pen : Author :: Sword : ?**

- (A) Blacksmith (B) Carpenter (C) Warrior (D) Barber

**58. Ophthalmologist : Eye :: Dermatologist : ?**

- (A) Skin (B) Bones (C) Teeth (D) Heart

**59. 4 : 16 :: 7 : ?**

- (A) 28 (B) 56 (C) 42 (D) 49

**60. 8 : 64 :: 11 : ?**

- (A) 110 (B) 121 (C) 131 (D) 144

**61. 3 : 27 :: 5 : ?**

- (A) 25 (B) 75 (C) 150 (D) 125

**62. 12 : 144 :: 15 : ?**

- (A) 180 (B) 215 (C) 225 (D) 250

**63. AC : DF :: FH : ?**

- (A) GI (B) IK (C) JL (D) KM

**64. If in a letter-value code CAT = 24 (3 + 1 + 20), then DOG = ?**

- (A) 26 (B) 24 (C) 22 (D) 28

**65. Find the odd one out among the following animals:**

- (A) Elephant (B) Tiger (C) Lion (D) Leopard

**66. Find the odd one out among the following Indian cities:**

- (A) Mumbai (B) New Delhi (C) Kolkata (D) Chennai

**67. Find the odd one out among the astronomical bodies:**

- (A) Mars (B) Jupiter (C) Moon (D) Venus

**68. Find the odd number out from the set: 27, 64, 125, 144**

- (A) 27 (B) 64 (C) 125 (D) 144

**69. Find the odd one out from the numbers: 13, 17, 19, 21**

- (A) 13 (B) 21 (C) 19 (D) 17

**70. Find the odd geometric figure out:**

- (A) Triangle (B) Square (C) Circle (D) Rectangle

- 71. Find the odd letter cluster: BDF, HJL, NPR, TVY**  
**(A)** TVY                                      **(B)** HJL                                      **(C)** NPR                                      **(D)** BDF
- 72. Find the odd musical instrument out:**  
**(A)** Guitar                                      **(B)** Violin                                      **(C)** Sitar                                      **(D)** Flute
- 73. Find the missing number in the sequence: 2, 5, 8, 11, ?**  
**(A)** 13                                      **(B)** 15                                      **(C)** 14                                      **(D)** 16
- 74. Find the next number in the geometric series: 3, 6, 12, 24, ?**  
**(A)** 48                                      **(B)** 42                                      **(C)** 36                                      **(D)** 54
- 75. Find the missing term in the square series: 1, 4, 9, 16, 25, ?**  
**(A)** 30                                      **(B)** 64                                      **(C)** 49                                      **(D)** 36
- 76. Find the next prime number in the series: 2, 3, 5, 7, 11, ?**  
**(A)** 14                                      **(B)** 13                                      **(C)** 15                                      **(D)** 17
- 77. Find the next term in the decreasing series: 100, 95, 85, 70, ?**  
**(A)** 45                                      **(B)** 60                                      **(C)** 55                                      **(D)** 50
- 78. Find the missing term in the series: 5, 11, 23, 47, ?**  
**(A)** 90                                      **(B)** 94                                      **(C)** 95                                      **(D)** 99
- 79. Complete the letter series: B, D, F, H, ?**  
**(A)** I                                      **(B)** J                                      **(C)** K                                      **(D)** L
- 80. Complete the reverse alphabet series: Z, X, V, T, ?**  
**(A)** R                                      **(B)** Q                                      **(C)** P                                      **(D)** S
- 81. Complete the sequence: ABC, BCD, CDE, ?**  
**(A)** DEF                                      **(B)** EFG                                      **(C)** DGF                                      **(D)** DEG
- 82. Find the next letter in the increasing interval pattern: A, C, F, J, ?**  
**(A)** N                                      **(B)** O                                      **(C)** P                                      **(D)** M
- 83. Complete the opposite alphabet pair sequence: AZ, BY, CX, ?**  
**(A)** EV                                      **(B)** DU                                      **(C)** DW                                      **(D)** DX
- 84. Complete the alphanumeric progression: K5, M7, O9, ?**  
**(A)** P10                                      **(B)** Q10                                      **(C)** R11                                      **(D)** Q11
- 85. If in a certain code 'ROSE' is written as 'SPTF', how is 'TULIP' written?**  
**(A)** UVMIQ                                      **(B)** UVMJQ                                      **(C)** TVMJQ                                      **(D)** UVMJP
- 86. If 'MILITARY' is encoded as 'YRATILIM', how will 'CADET' be coded?**  
**(A)** TADEC                                      **(B)** TEDCA                                      **(C)** TEDAC                                      **(D)** DETAC
- 87. If A = 1 and AND = 19 (1 + 14 + 4), what is the numerical code for BAT?**  
**(A)** 23                                      **(B)** 21                                      **(C)** 25                                      **(D)** 20
- 88. If 'WATER' is written as 'YCVGT', how will 'FIRE' be coded in that system?**  
**(A)** GJTF                                      **(B)** GLTG                                      **(C)** HKSF                                      **(D)** HKTG

- 89.** If 'RED' is called 'BLUE', 'BLUE' is called 'GREEN', 'GREEN' is called 'YELLOW', and 'YELLOW' is called 'WHITE', what is the color of fresh leaves?
- (A) Green (B) Blue (C) Yellow (D) White
- 90.** In a code language: '123' means 'hot filtered coffee', '356' means 'very hot day', and '589' means 'day and night'. Which digit represents 'very'?
- (A) 6 (B) 3 (C) 5 (D) 2
- 91.** Pointing to a boy in a photograph, Sunita said: 'His mother is the only daughter of my mother.' How is Sunita related to the boy?
- (A) Grandmother (B) Sister (C) Aunt (D) Mother
- 92.** A is B's brother. C is A's father. D is C's father. How is A related to D?
- (A) Son (B) Grandson (C) Father (D) Brother
- 93.** Introducing a girl, Vipin said, 'Her mother is the only daughter of my mother-in-law.' How is Vipin related to the girl?
- (A) Brother (B) Uncle (C) Husband (D) Father
- 94.** P is the brother of Q. R is the mother of P. S is the father of R. How is P related to S?
- (A) Grandfather (B) Son (C) Grandson (D) Brother
- 95.** A cadet marches 10 m North, turns right and marches 10 m, then turns right again and marches 10 m. In which direction is he now from his starting point?
- (A) North (B) East (C) South (D) West
- 96.** Rohan is facing North. He turns 90° clockwise, and then turns 180° anti-clockwise. Which direction is he facing now?
- (A) West (B) South (C) East (D) North
- 97.** A scout walks 20 m East, then turns left and walks 15 m North. What is the shortest straight-line distance between his starting point and final position?
- (A) 25 m (B) 35 m (C) 30 m (D) 20 m
- 98.** If South-East becomes North, North-East becomes West, and all other directions change similarly, what will West become?
- (A) North-East (B) South-East (C) North-West (D) South-West
- 99.** In a merit ranking of 45 cadets, Aman is ranked 16th from the top. What is his rank from the bottom?
- (A) 29th (B) 31st (C) 30th (D) 28th
- 100.** Five runners A, B, C, D, and E compete in a race. B finishes before C but after A. D finishes before A, and E finishes after C. Who won the race?
- (A) A (B) B (C) E (D) D

### SECTION III: MATHEMATICS

Questions 101 to 150 • 50 Marks

*Arithmetic, Number System, Fractions, Decimals, Ratio, Percentage, Simple Interest, Measurement & Geometry*

- 101.** What is the place value of the digit 7 in the numeral 5,87,342?
- (A) 700 (B) 7,000 (C) 70,000 (D) 7
- 102.** Find the difference between the greatest 5-digit number and the smallest 4-digit number:
- (A) 99,899 (B) 99,000 (C) 98,999 (D) 90,000

- 103.** When rounded off to the nearest hundred, the number 4,876 becomes:  
 (A) 4,900 (B) 4,870 (C) 4,800 (D) 5,000
- 104.** How many thousands make one crore?  
 (A) 100 (B) 1,000 (C) 1,00,000 (D) 10,000
- 105.** The complete prime factorisation of 84 is:  
 (A)  $2 \times 2 \times 21$  (B)  $4 \times 3 \times 7$  (C)  $2 \times 2 \times 3 \times 7$  (D)  $2 \times 3 \times 14$
- 106.** Which of the following represents the correct Roman numeral for 98?  
 (A) XCVIII (B) IC (C) LXXXVIII (D) IIC
- 107.** What is the value of the Roman numeral CLXVIII in the Hindu-Arabic system?  
 (A) 158 (B) 148 (C) 178 (D) 168
- 108.** Which of the following Roman numerals is invalid / meaningless?  
 (A) XIV (B) VV (C) XIX (D) LX
- 109.** Find the Highest Common Factor (HCF) of 36 and 48:  
 (A) 6 (B) 24 (C) 18 (D) 12
- 110.** Find the Lowest Common Multiple (LCM) of 12, 16, and 24:  
 (A) 24 (B) 36 (C) 48 (D) 96
- 111.** The product of two numbers is 720 and their HCF is 6. What is their LCM?  
 (A) 60 (B) 120 (C) 180 (D) 240
- 112.** Find the greatest number which divides both 45 and 60 completely without leaving any remainder:  
 (A) 15 (B) 10 (C) 5 (D) 30
- 113.** Three school bells toll at intervals of 9, 12, and 15 minutes respectively. If they toll together now, after how many minutes will they toll together next?  
 (A) 180 minutes (B) 120 minutes (C) 60 minutes (D) 360 minutes
- 114.** Simplify the fractional expression:  $\frac{3}{4} + \frac{5}{6} - \frac{1}{3}$   
 (A) 1 (B)  $1\frac{1}{4}$  (C)  $1\frac{1}{2}$  (D)  $1\frac{1}{6}$
- 115.** Evaluate:  $2\frac{1}{3} \times 3\frac{3}{7}$   
 (A) 6 (B) 7 (C) 8 (D) 9
- 116.** Convert the decimal 0.375 into a fraction in its simplest form:  
 (A)  $\frac{1}{4}$  (B)  $\frac{7}{16}$  (C)  $\frac{5}{8}$  (D)  $\frac{3}{8}$
- 117.** Which of the following fractions is the greatest in value?  
 (A)  $\frac{2}{3}$  (B)  $\frac{5}{6}$  (C)  $\frac{3}{5}$  (D)  $\frac{7}{10}$
- 118.** Calculate the product:  $3.45 \times 1.2$   
 (A) 4.04 (B) 4.24 (C) 4.14 (D) 3.94
- 119.** If the cost of 15 notebooks is ₹180, what is the cost of 8 notebooks?  
 (A) ₹96 (B) ₹84 (C) ₹108 (D) ₹120
- 120.** A military vehicle travels 240 km in 4 hours. How far will it travel in 7 hours at the same constant speed?  
 (A) 360 km (B) 480 km (C) 450 km (D) 420 km

- 121.** 12 workers can construct a boundary wall in 15 days. How many days will 20 workers take to build the same wall?
- (A) 8 days                      (B) 10 days                      (C) 9 days                      (D) 11 days
- 122.** 6 identical water pumps can fill an overhead tank in 4 hours. How long will 8 pumps take to fill the same tank?
- (A) 3 hours                      (B) 2.5 hours                      (C) 3.5 hours                      (D) 4.5 hours
- 123.** The ratio of boys to girls in a school is 5 : 4. If there are 360 girls, how many boys are there in the school?
- (A) 400                      (B) 500                      (C) 480                      (D) 450
- 124.** If the numbers 4, 8, x, and 24 are in proportion, find the value of x:
- (A) 10                      (B) 12                      (C) 14                      (D) 16
- 125.** Find the value of m if  $6 : 9 :: m : 15$ :
- (A) 8                      (B) 14                      (C) 12                      (D) 10
- 126.** Divide ₹1,500 between Amit and Sumit in the ratio 3 : 2. What is Amit's share?
- (A) ₹600                      (B) ₹750                      (C) ₹900                      (D) ₹1,000
- 127.** Convert the fraction  $\frac{3}{5}$  into a percentage:
- (A) 45%                      (B) 60%                      (C) 50%                      (D) 75%
- 128.** What is 25% of 800?
- (A) 200                      (B) 150                      (C) 250                      (D) 300
- 129.** In an entrance test, a candidate scored 420 marks out of a total of 600 marks. What is his percentage?
- (A) 70%                      (B) 65%                      (C) 75%                      (D) 80%
- 130.** The price of a school bag increased from ₹800 to ₹1,000. Find the percentage increase:
- (A) 20%                      (B) 25%                      (C) 30%                      (D) 15%
- 131.** A shopkeeper bought a chair for ₹600 and sold it for ₹750. What is his profit percentage?
- (A) 20%                      (B) 30%                      (C) 25%                      (D) 15%
- 132.** An article bought for ₹450 is sold at a loss of 10%. Find its selling price:
- (A) ₹395                      (B) ₹425                      (C) ₹415                      (D) ₹405
- 133.** By selling a bicycle for ₹2,400, a person suffered a loss of ₹100. What was the cost price of the bicycle?
- (A) ₹2,300                      (B) ₹2,500                      (C) ₹2,600                      (D) ₹2,450
- 134.** If Cost Price = ₹1,200 and Selling Price = ₹1,080, find the loss percentage:
- (A) 8%                      (B) 12%                      (C) 10%                      (D) 15%
- 135.** Calculate the Simple Interest on ₹5,000 at 8% per annum for 3 years:
- (A) ₹1,200                      (B) ₹1,000                      (C) ₹1,400                      (D) ₹1,500
- 136.** At what annual rate of interest will ₹2,000 yield a simple interest of ₹400 in 2 years?
- (A) 8%                      (B) 15%                      (C) 12%                      (D) 10%
- 137.** Find the total amount to be repaid on a loan of ₹8,000 borrowed at 5% per annum for 4 years:
- (A) ₹9,200                      (B) ₹10,000                      (C) ₹9,600                      (D) ₹9,800

- 138.** In how many years will an amount double itself at 10% per annum simple interest?  
 (A) 10 years (B) 8 years (C) 12 years (D) 15 years
- 139.** Find the perimeter of a rectangular parade ground having length 24 m and breadth 16 m:  
 (A) 60 m (B) 384 m (C) 100 m (D) 80 m
- 140.** The area of a square drill field is 144 sq m. What is its perimeter?  
 (A) 36 m (B) 48 m (C) 56 m (D) 64 m
- 141.** Find the area of a rectangular courtyard whose length is 25 m and breadth is 18 m:  
 (A) 400 sq m (B) 86 sq m (C) 500 sq m (D) 450 sq m
- 142.** Find the volume of a wooden chest measuring 10 cm in length, 8 cm in breadth, and 6 cm in height:  
 (A) 240 cm<sup>3</sup> (B) 360 cm<sup>3</sup> (C) 480 cm<sup>3</sup> (D) 520 cm<sup>3</sup>
- 143.** Convert a speed of 72 km/h into metres per second (m/s):  
 (A) 15 m/s (B) 20 m/s (C) 25 m/s (D) 30 m/s
- 144.** A train 150 metres long passes an electric pole in 10 seconds. Find the speed of the train in km/h:  
 (A) 54 km/h (B) 45 km/h (C) 60 km/h (D) 72 km/h
- 145.** An express bus departs from Delhi at 08:30 AM and reaches Chandigarh at 02:15 PM. How long did the trip take?  
 (A) 5 hours 45 minutes (B) 5 hours 15 minutes (C) 6 hours 15 minutes (D) 6 hours 30 minutes
- 146.** Find the average of the first five prime numbers (2, 3, 5, 7, 11):  
 (A) 5.0 (B) 5.6 (C) 6.2 (D) 5.8
- 147.** The average marks of a cadet in 4 subjects is 75. If he scores 85 marks in the 5th subject, what is his new average?  
 (A) 76 (B) 78 (C) 77 (D) 80
- 148.** What is the complement of an angle measuring 38°?  
 (A) 42° (B) 142° (C) 62° (D) 52°
- 149.** Two angles of a triangle are 45° and 65°. Find the measure of the third angle:  
 (A) 60° (B) 70° (C) 80° (D) 90°
- 150.** The diameter of a circular sports ground is 14 m. Find its circumference (Use  $\pi = 22/7$ ):  
 (A) 22 m (B) 88 m (C) 44 m (D) 154 m

## SECTION IV: GENERAL KNOWLEDGE & CURRENT AFFAIRS

Questions 151 to 200 • 50 Marks

*Defence Forces, History, Geography, Indian Constitution, General Science, Sports, and National Heritage*

- 151.** Who was the Chairman of the Drafting Committee of the Indian Constitution?  
 (A) Dr. B.R. Ambedkar (B) Dr. Rajendra Prasad  
 (C) Jawaharlal Nehru (D) Sardar Patel
- 152.** Which Mughal Emperor commissioned the construction of the Red Fort in Delhi?  
 (A) Akbar (B) Humayun (C) Babur (D) Shah Jahan
- 153.** In which historic year did India gain Independence from British colonial rule?  
 (A) 1942 (B) 1950 (C) 1947 (D) 1948

- 154. Who was the founder of the ancient Mauryan Empire in India?**  
(A) Chandragupta Maurya (B) Ashoka the Great  
(C) Bindusara (D) Harsha
- 155. The historic Battle of Plassey was fought in the year:**  
(A) 1764 (B) 1761 (C) 1857 (D) 1757
- 156. Who gave the famous freedom call 'Give me blood, and I shall give you freedom'?**  
(A) Bhagat Singh (B) Netaji Subhash Chandra Bose  
(C) Lala Lajpat Rai (D) Chandrashekhar Azad
- 157. Where did Gautama Buddha, the founder of Buddhism, attain Enlightenment?**  
(A) Lumbini (B) Kushinagar (C) Sarnath (D) Bodh Gaya
- 158. Which is the longest river flowing entirely within India?**  
(A) Yamuna (B) Godavari (C) Ganga (D) Brahmaputra
- 159. Which coastal state of India has the longest coastline?**  
(A) Andhra Pradesh (B) Gujarat (C) Tamil Nadu (D) Maharashtra
- 160. What is the capital city of the northeastern state of Mizoram?**  
(A) Aizawl (B) Imphal (C) Kohima (D) Shillong
- 161. Which is the highest mountain peak located within the territory of India?**  
(A) Kanchenjunga (B) K2 (Godwin Austen) (C) Nanda Devi (D) Kamet
- 162. Kaziranga National Park in Assam is world-famous for the conservation of:**  
(A) Royal Bengal Tiger (B) One-horned Rhinoceros  
(C) Asiatic Lion (D) Snow Leopard
- 163. The Tropic of Cancer passes through how many Indian states?**  
(A) 6 (B) 7 (C) 8 (D) 9
- 164. Which planet in the Solar System is widely known as the 'Red Planet'?**  
(A) Venus (B) Saturn (C) Jupiter (D) Mars
- 165. Which of the following is the largest natural freshwater lake in India?**  
(A) Chilika Lake (B) Wular Lake (C) Sambhar Lake (D) Dal Lake
- 166. Which Indian state is historically known as the 'Land of Five Rivers'?**  
(A) Haryana (B) Uttar Pradesh (C) Punjab (D) Himachal Pradesh
- 167. Who is the Supreme Commander of the Armed Forces of the Republic of India?**  
(A) The President of India (B) The Prime Minister  
(C) Chief of Defence Staff (D) Defence Minister
- 168. How many members can the President of India nominate to the Rajya Sabha for special distinction?**  
(A) 2 (B) 10 (C) 14 (D) 12
- 169. What is the minimum age required for an Indian citizen to exercise voting rights?**  
(A) 16 years (B) 21 years (C) 18 years (D) 25 years

- 170. The National Motto of India, 'Satyameva Jayate', is inscribed below the State Emblem. Where is it taken from?**  
(A) Mundaka Upanishad (B) Rigveda (C) Bhagavad Gita (D) Samaveda
- 171. Who wrote the National Anthem of India, 'Jana Gana Mana'?**  
(A) Bankim Chandra Chatterjee (B) Sri Aurobindo  
(C) Sarojini Naidu (D) Rabindranath Tagore
- 172. Who composed the National Song of India, 'Vande Mataram'?**  
(A) Rabindranath Tagore (B) Bankim Chandra Chatterjee  
(C) Kavi Pradeep (D) Muhammad Iqbal
- 173. What is the official ratio of width to length of the National Flag of India?**  
(A) 1 : 2 (B) 3 : 5 (C) 3 : 4 (D) 2 : 3
- 174. Which is India's highest military decoration awarded for conspicuous gallantry during wartime?**  
(A) Maha Vir Chakra (B) Ashoka Chakra (C) Param Vir Chakra (D) Kirti Chakra
- 175. Where is the prestigious National Defence Academy (NDA) located?**  
(A) Dehradun (B) Khadakwasla (Pune) (C) Mhow (D) Chennai
- 176. Where is the Indian Military Academy (IMA) situated?**  
(A) Dehradun (B) Gwalior (C) Shimla (D) Dungarpur
- 177. Which rank in the Indian Navy is equivalent to the rank of Major in the Indian Army?**  
(A) Lieutenant Commander (B) Lieutenant  
(C) Commander (D) Captain
- 178. On which day is Indian Army Day observed across the country every year?**  
(A) 26th January (B) 15th January (C) 15th August (D) 8th October
- 179. On which date is Indian Air Force Day celebrated annually?**  
(A) 15th January (B) 4th December (C) 8th October (D) 7th December
- 180. When is Indian Navy Day celebrated in commemoration of Operation Trident?**  
(A) 15th January (B) 8th October (C) 16th December (D) 4th December
- 181. Who was the first heroic recipient of the Param Vir Chakra in 1947?**  
(A) Captain Vikram Batra  
(B) Major Somnath Sharma  
(C) Company Quartermaster Havildar Abdul Hamid  
(D) Subedar Major Bana Singh
- 182. What is the inspiring official motto of the Indian Army?**  
(A) Touch the Sky with Glory (B) Sha-no Varuna  
(C) Service Before Self (D) Valour and Faith
- 183. Deficiency of which essential vitamin causes Rickets in young children?**  
(A) Vitamin D (B) Vitamin B (C) Vitamin A (D) Vitamin C
- 184. Which is the largest organ of the human body?**  
(A) Liver (B) Lungs (C) Heart (D) Skin

- 185. Which green chemical substance inside plant leaves captures sunlight for making food?**  
 (A) Hemoglobin (B) Stomata (C) Chlorophyll (D) Cellulose
- 186. Which gas is absorbed by green plants from the atmosphere during photosynthesis?**  
 (A) Carbon dioxide (B) Oxygen (C) Nitrogen (D) Hydrogen
- 187. Which microscopic component of human blood plays the key role in blood clotting?**  
 (A) Red Blood Cells (B) Plasma (C) White Blood Cells (D) Platelets
- 188. What is the normal average body temperature of a healthy human being in Celsius?**  
 (A) 35°C (B) 37°C (C) 39°C (D) 98.6°C
- 189. Which component of our daily diet provides the maximum amount of energy per gram?**  
 (A) Carbohydrates (B) Vitamins (C) Proteins (D) Fats
- 190. Through which of the following media can sound NOT travel?**  
 (A) Water (B) Air (C) Vacuum (D) Steel
- 191. What is the normal boiling point of pure water at standard sea-level atmospheric pressure?**  
 (A) 0°C (B) 100°C (C) 212°C (D) 80°C
- 192. Who is credited with the commercial invention of the incandescent electric light bulb?**  
 (A) Thomas Alva Edison (B) Alexander Graham Bell  
 (C) Nikola Tesla (D) Benjamin Franklin
- 193. Which scientific instrument is utilized to measure and record the intensity of earthquakes?**  
 (A) Seismograph (B) Barometer (C) Hydrometer (D) Altimeter
- 194. Who discovered the Universal Law of Gravitation after observing a falling apple?**  
 (A) Albert Einstein (B) Sir Isaac Newton (C) Galileo Galilei (D) Johannes Kepler
- 195. An Anemometer is a weather forecasting instrument used to measure:**  
 (A) Air pressure (B) Rainfall amount (C) Wind speed (D) Humidity level
- 196. Which optical instrument is used in biological laboratories to magnify microscopic organisms?**  
 (A) Telescope (B) Kaleidoscope (C) Periscope (D) Microscope
- 197. The historic 'Durand Cup' is the oldest tournament in Asia associated with which sport?**  
 (A) Cricket (B) Football (C) Hockey (D) Polo
- 198. Which legendary Indian Olympian is universally honored with the title 'The Hockey Wizard'?**  
 (A) Balbir Singh Sr. (B) Dhanraj Pillay (C) Major Dhyan Chand (D) K.D. Singh Babu
- 199. On which date is World Environment Day celebrated globally every year?**  
 (A) 5th June (B) 22nd April (C) 16th September (D) 1st December
- 200. Who authored the famous book 'The Discovery of India' while imprisoned at Ahmednagar Fort?**  
 (A) Mahatma Gandhi (B) Dr. S. Radhakrishnan  
 (C) Rabindranath Tagore (D) Pandit Jawaharlal Nehru

# TYBA COACHING CENTRE • OFFICIAL ANSWER KEY (QUESTIONS 1 TO 200)

Test Booklet Code:  
A

**Scoring Instructions:** Award +1 mark for every correct response. No negative marking. Total Marks = 200. Helpline: 6367029449.

| Sec I: English |     |      |     | Sec II: Intelligence |     |       |     | Sec III: Maths |     |       |     | Sec IV: GK |     |       |     |
|----------------|-----|------|-----|----------------------|-----|-------|-----|----------------|-----|-------|-----|------------|-----|-------|-----|
| Q.No           | Key | Q.No | Key | Q.No                 | Key | Q.No  | Key | Q.No           | Key | Q.No  | Key | Q.No       | Key | Q.No  | Key |
| Q.1            | (A) | Q.26 | (A) | Q.51                 | (C) | Q.76  | (B) | Q.101          | (B) | Q.126 | (C) | Q.151      | (A) | Q.176 | (A) |
| Q.2            | (B) | Q.27 | (D) | Q.52                 | (D) | Q.77  | (D) | Q.102          | (C) | Q.127 | (B) | Q.152      | (D) | Q.177 | (A) |
| Q.3            | (C) | Q.28 | (B) | Q.53                 | (B) | Q.78  | (C) | Q.103          | (A) | Q.128 | (A) | Q.153      | (C) | Q.178 | (B) |
| Q.4            | (D) | Q.29 | (D) | Q.54                 | (C) | Q.79  | (B) | Q.104          | (D) | Q.129 | (A) | Q.154      | (A) | Q.179 | (C) |
| Q.5            | (B) | Q.30 | (C) | Q.55                 | (A) | Q.80  | (A) | Q.105          | (C) | Q.130 | (B) | Q.155      | (D) | Q.180 | (D) |
| Q.6            | (C) | Q.31 | (B) | Q.56                 | (D) | Q.81  | (A) | Q.106          | (A) | Q.131 | (C) | Q.156      | (B) | Q.181 | (B) |
| Q.7            | (A) | Q.32 | (A) | Q.57                 | (C) | Q.82  | (B) | Q.107          | (D) | Q.132 | (D) | Q.157      | (D) | Q.182 | (C) |
| Q.8            | (D) | Q.33 | (A) | Q.58                 | (A) | Q.83  | (C) | Q.108          | (B) | Q.133 | (B) | Q.158      | (C) | Q.183 | (A) |
| Q.9            | (C) | Q.34 | (B) | Q.59                 | (D) | Q.84  | (D) | Q.109          | (D) | Q.134 | (C) | Q.159      | (B) | Q.184 | (D) |
| Q.10           | (A) | Q.35 | (C) | Q.60                 | (B) | Q.85  | (B) | Q.110          | (C) | Q.135 | (A) | Q.160      | (A) | Q.185 | (C) |
| Q.11           | (D) | Q.36 | (D) | Q.61                 | (D) | Q.86  | (C) | Q.111          | (B) | Q.136 | (D) | Q.161      | (A) | Q.186 | (A) |
| Q.12           | (B) | Q.37 | (B) | Q.62                 | (C) | Q.87  | (A) | Q.112          | (A) | Q.137 | (C) | Q.162      | (B) | Q.187 | (D) |
| Q.13           | (D) | Q.38 | (C) | Q.63                 | (B) | Q.88  | (D) | Q.113          | (A) | Q.138 | (A) | Q.163      | (C) | Q.188 | (B) |
| Q.14           | (C) | Q.39 | (A) | Q.64                 | (A) | Q.89  | (C) | Q.114          | (B) | Q.139 | (D) | Q.164      | (D) | Q.189 | (D) |
| Q.15           | (B) | Q.40 | (D) | Q.65                 | (A) | Q.90  | (A) | Q.115          | (C) | Q.140 | (B) | Q.165      | (B) | Q.190 | (C) |
| Q.16           | (A) | Q.41 | (C) | Q.66                 | (B) | Q.91  | (D) | Q.116          | (D) | Q.141 | (D) | Q.166      | (C) | Q.191 | (B) |
| Q.17           | (A) | Q.42 | (A) | Q.67                 | (C) | Q.92  | (B) | Q.117          | (B) | Q.142 | (C) | Q.167      | (A) | Q.192 | (A) |
| Q.18           | (B) | Q.43 | (D) | Q.68                 | (D) | Q.93  | (D) | Q.118          | (C) | Q.143 | (B) | Q.168      | (D) | Q.193 | (A) |
| Q.19           | (C) | Q.44 | (B) | Q.69                 | (B) | Q.94  | (C) | Q.119          | (A) | Q.144 | (A) | Q.169      | (C) | Q.194 | (B) |
| Q.20           | (D) | Q.45 | (D) | Q.70                 | (C) | Q.95  | (B) | Q.120          | (D) | Q.145 | (A) | Q.170      | (A) | Q.195 | (C) |
| Q.21           | (B) | Q.46 | (C) | Q.71                 | (A) | Q.96  | (A) | Q.121          | (C) | Q.146 | (B) | Q.171      | (D) | Q.196 | (D) |
| Q.22           | (C) | Q.47 | (B) | Q.72                 | (D) | Q.97  | (A) | Q.122          | (A) | Q.147 | (C) | Q.172      | (B) | Q.197 | (B) |
| Q.23           | (A) | Q.48 | (A) | Q.73                 | (C) | Q.98  | (B) | Q.123          | (D) | Q.148 | (D) | Q.173      | (D) | Q.198 | (C) |
| Q.24           | (D) | Q.49 | (A) | Q.74                 | (A) | Q.99  | (C) | Q.124          | (B) | Q.149 | (B) | Q.174      | (C) | Q.199 | (A) |
| Q.25           | (C) | Q.50 | (B) | Q.75                 | (D) | Q.100 | (D) | Q.125          | (D) | Q.150 | (C) | Q.175      | (B) | Q.200 | (D) |

## KEY EXPLANATORY NOTES & MATHEMATICAL SOLUTIONS (TYBA COACHING CENTRE EXPERT FACULTY)

**Q. 55 [Barometer]:** Thermometer measures temperature; barometer measures atmospheric pressure.

**Q. 71 [TVY]:** B(+2)D(+2)F, H(+2)J(+2)L, N(+2)P(+2)R are +2 intervals. In TVY, T(20)+2=V(22)+3=Y(25) is +3.

**Q. 97 [Shortest Distance]:** Pythagoras theorem: Distance =  $\sqrt{(20^2 + 15^2)} = \sqrt{(400 + 225)} = \sqrt{625} = 25 \text{ m}$ .

**Q. 64 [CAT = 24]:** Sum of alphabet positions: C(3) + A(1) + T(20) = 24. DOG = D(4) + O(15) + G(7) = 26.

**Q. 78 [5, 11, 23, 47, ?]:** Pattern:  $5 \times 2 + 1 = 11$ ;  $11 \times 2 + 1 = 23$ ;  $23 \times 2 + 1 = 47$ ;  $47 \times 2 + 1 = 95$ .

**Q. 99 [Ranking]:** Rank from bottom = (Total – Rank from top) + 1 = (45 – 16) + 1 = 29 + 1 = 30th.

**Q. 104 [Thousands in One Crore]:** 1 Crore = 1,00,00,000.  
 $1,00,00,000 \div 1,000 = \mathbf{10,000 \text{ thousands}}$ .

**Q. 113 [Toll Together]:** LCM of 9, 12, and 15 = **180 minutes** (3 hours).

**Q. 121 [Work & Days]:** Total work =  $12 \times 15 = 180$  man-days. Time for 20 workers =  $180 \div 20 = \mathbf{9 \text{ days}}$ .

**Q. 131 [Profit %]:** Profit = ₹750 - ₹600 = ₹150. Profit % =  $(150/600) \times 100 = \mathbf{25\%}$ .

**Q. 138 [Doubling Time]:** Interest = Principal  $\Rightarrow T = 100 / R = 100 / 10 = \mathbf{10 \text{ years}}$ .

**Q. 143 [Speed Conversion]:**  $72 \text{ km/h} = 72 \times (5/18) = \mathbf{20 \text{ m/s}}$ .

**Q. 146 [Average of Primes]:**  $(2 + 3 + 5 + 7 + 11) / 5 = 28 / 5 = \mathbf{5.6}$ .

**Q. 161 [Kanchenjunga]:** Kanchenjunga (8,586 m) in Sikkim is the highest peak in Indian territory (K2 is in PoK).

**Q. 181 [First PVC]:** Major Somnath Sharma received India's first Param Vir Chakra posthumously for the Battle of Badgam in 1947.

**Q. 111 [LCM from Product]:** Product = HCF  $\times$  LCM  $\Rightarrow$  LCM =  $720 \div 6 = \mathbf{120}$ .

**Q. 114 [Fractions]:**  $3/4 + 5/6 - 1/3 = (9 + 10 - 4)/12 = 15/12 = 5/4 = \mathbf{1 \frac{1}{4}}$ .

**Q. 126 [Ratio Division]:** Ratio 3:2  $\Rightarrow$  Total parts = 5. Amit's share =  $(3/5) \times ₹1,500 = \mathbf{₹900}$ .

**Q. 135 [Simple Interest]:** SI =  $(P \times R \times T) / 100 = (5000 \times 8 \times 3) / 100 = \mathbf{₹1,200}$ .

**Q. 140 [Square Perimeter]:** Area = 144 sq m  $\Rightarrow$  Side =  $\sqrt{144} = 12 \text{ m}$ . Perimeter =  $4 \times 12 = \mathbf{48 \text{ m}}$ .

**Q. 144 [Train Speed]:** Speed =  $150 \text{ m} / 10 \text{ s} = 15 \text{ m/s}$ . In km/h:  $15 \times (18/5) = \mathbf{54 \text{ km/h}}$ .

**Q. 150 [Circumference]:** Circumference =  $\pi \times d = (22/7) \times 14 = \mathbf{44 \text{ metres}}$ .

**Q. 177 [Equivalent Naval Rank]:** Army Major corresponds to Navy Lieutenant Commander and Air Force Squadron Leader.

**Q. 183 [Rickets & Vit D]:** Vitamin D helps in calcium absorption; its deficiency leads to weak bones and rickets in children.