

**DON BOSCO HIGH SCHOOL, PANJIM**  
**DON BOSCO COMPETITIVE ADVANTAGE TEST (DB-CAT) 2024-25**  
**27 FEBRUARY 2025**  
**CLASS VII**

**A. QUESTION PAPER RELATED INSTRUCTIONS**

Before you begin, check if all 80 questions have been printed on your question paper.

DB-CAT 24 - 2025 consists of a total of 80 questions as follows:

**ENGLISH – Q Nos. 1-15**

**MATHEMATICS- Q Nos. 16-30**

**SCIENCE - Q Nos. 31-45**

**HISTORY – Q Nos. 46 -55**

**GEOGRAPHY – Q Nos. 56 – 65**

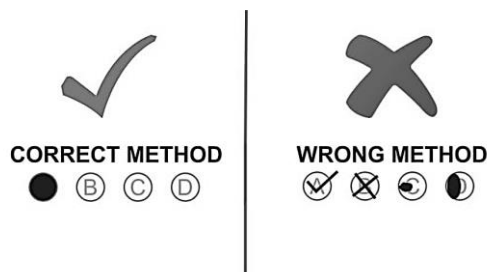
**G.K AND CURRENT AFFAIRS Q Nos. 66 – 75**

**LOGIC AND REASONING – Q Nos. 76-80**

1. Each question carries 1 mark.
2. Total duration of the test is 90 minutes
3. All questions are compulsory.
4. There is no negative marking for incorrect answers.
5. You may take away the question paper after the examination.

**B. OMR SHEET RELATED INSTRUCTIONS:**

1. Begin by writing your name and other required information in the space provided at the top of the OMR sheet.
2. Your signature must be entered in the box labelled as Candidate's Signature.
3. Each Multiple Choice Question (MCQ) has four options a) b) c) and d), of which only one is the correct answer.
4. Before marking your answers, carefully read each question and review all four options. Changing answers is not permitted.
5. Once you are sure of your answer, use a dark pen ( **BLUE OR BLACK BALL POINT PEN** ) to mark your answers on the provided OMR sheet. Answers marked with pencil will not be accepted
6. Fully darken the bubble corresponding to your chosen option, as shown in the example below.



7. Responses with more than one darkened bubble or those not darkened as per instructions will be considered invalid.
8. Avoid making any stray marks on the sheet.
9. No rough work should be done on the OMR sheet. All rough work must be done in the space provided on the question paper. Additional paper for rough work will be provided by the invigilator on request.
10. Do not use a marker or whitener on the OMR sheet.

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14. The boys are at home. \_\_\_\_\_ in the bedroom.  
a) They're    b) There  
c) Their    d) Thier
15. The man is extremely stingy. (Select the appropriate antonym for the underlined word.)  
a) generous                                        b) miserly  
c) petty    d) angry

# MATHEMATICS

16. 8% of children in a class of 25 like getting wet in the rain. How many children do not like getting wet in the rain?  
a) 20  
b) 22  
c) 23  
d) None of these
17. The value of x such that,  $\frac{7}{-3} = \frac{x}{6}$  is  
a) -21  
b) -14  
c) -3  
d) None of these
18. The edge of a ruler draws a \_\_\_\_\_  
a) ray  
b) line  
c) line segment  
d) curve
19. If the perimeter of a semicircular protractor is 36cm, then its diameter is \_\_\_\_\_ cm.  
a) 12  
b) 14  
c) 16  
d) 18
20. The value of a if  $y^2 + y - a$  equals 3 for  $y = 1$  is \_\_\_\_\_  
a) -5  
b) -1  
c) 0  
d) 5
21. The value of  $(3^0 + 2^0) \times 5^0$  is \_\_\_\_\_  
a) 0  
b) 1  
c) 2  
d) 25
22. Which of the following letters have reflection line of symmetry about vertical mirror?  
a) B  
b) C  
c) Q  
d) V
23. The number of faces in a solid if there are 6 vertices and 12 edges.  
a) 8  
b) 10  
c) 12  
d) 18
24. The exponential form of 140,000,000,000 kg is  
a)  $1.4 \times 10^8$  kg  
b)  $1.4 \times 10^9$  kg  
c)  $1.4 \times 10^{10}$  kg  
d)  $1.4 \times 10^{11}$  kg
25. The sum of  $4m$  and  $5n$  is \_\_\_\_\_  
a)  $9mn$   
b)  $4m + 5n$   
c)  $5m$   
d)  $4n$
26. What is the value of 1000 divided by 0 \_\_\_\_\_  
a) 0  
b) 1  
c) 100  
d) Not defined
27. What cross-section do you get when you give a horizontal cut to a die?  
a) square  
b) rectangle  
c) triangle  
d) circle
28. Which of the following pairs of terms is a pair of like terms?  
a)  $xy$ ,  $yx$   
b)  $y$ ,  $xy$   
c)  $X^2$ ,  $x$   
d)  $X^2$ , 7

29. The range of the data 32,16,7,18,12,8,17,14,13 is \_\_\_\_\_
- a) 8                                  b) 12  
c) 25                                d) 32

30. What is the measure of the complement of the angle  $90^\circ$ ?  
 a)  $0^\circ$   
 b)  $45^\circ$   
 c)  $90^\circ$   
 d)  $180^\circ$

# SCIENCE

31. If an object is placed 0.5 m in front of a plane mirror, what will be the distance between the object and its image?

- a) 2m                      b) 0.5m  
c) 1m                      d) 0.25m

32. Which one of the following is a parasite?

- a) Lichen  
b) Rhizobium  
c) Cuscuta  
d) Pitcher plant

33. The finger-like outgrowths of Amoeba help to ingest food. However, the finger-like outgrowths of human intestine help to

- a) digest the fatty food substances      b) absorb the digested food  
c) make the food soluble                      d) absorb the undigested food

34. The process of extracting threads from a cocoon to produce silk is called

- a) Reeling                      b) Rearing  
c) Shearing                  d) Scouring

35. A beggar wrapped himself with a few layers of newspaper on a cold winter night. This helped him to keep himself warm because

- a) pressure between the layers of newspaper produces heat  
b) air trapped between the layers of newspaper is a bad conductor of heat.  
c) newspaper is a conductor of heat.  
d) newspaper is at a higher temperature than the temperature of the surrounding

36. Which of the following is an acid base indicator?

- a) Curd    b) Beetroot  
c) Vinegar                                      d) Baking Soda

37. Lila observed that a pond with clear water was covered up with a green algae within a week. By which method of reproduction did the algae spread so rapidly?

- a) Budding  
b) Sexual reproduction  
c) Fragmentation  
d) Pollination

38. A series of organisms in which an organism depends on the next organism for food is called a

- a) Food series                      b) Food web  
c) Food chain                     d) Food hub

39. Which of the following is not an adaptive feature in polar bear?

- a) White fur                                      b) Strong sense of smell  
c) Long curved and sharp claws          d) Long tail

40. The process of ground water getting stored between the layers of hard rock below the water table is known as

- a) Infiltration      b) Aquifer  
c) Water table      d) Bawri

41. The distance travelled by a vehicle is recorded by

- a) Multimeter  
b) Speedometer  
c) Odometer  
d) Motometer

42. Coils of heating devices are made up of \_\_\_\_\_
- a) Mercury                                      b) Nichrome  
c) Silver                                         d) Gold
43. When carbon dioxide is passed through lime water, it turns milky due to the formation of \_\_\_\_\_
- a) Calcium oxide                                  b) Calcium hydroxide  
c) Calcium carbonate                            d) Calcium hydrogencarbonate
44. Small, thin-walled, balloon-like structures inside the lungs that help in gas exchange are called \_\_\_\_\_
- a) nephrons                                        b) alveoli  
c) arteries                                         d) stomata
45. Which of the following has the smallest sized soil particles?
- a) gravel    b) clay  
c) silt    d) sand

## HISTORY

46. Manuscripts and documents are stored in \_\_\_\_\_  
a) archives                                      b) monasteries  
c) library                                        d) temples

47. Ziyauddin Barani was a fourteenth century \_\_\_\_\_  
a) cartographer                                  b) chronicler  
c) geographer                                   d) historian

48. The Tawarikhs were written in \_\_\_\_\_ language.  
a) Sanskrit                                        b) Hindi  
c) Urdu     d) Persian

49. The expansion of the Delhi Sultanate culminated with \_\_\_\_\_  
a) Alauddin Khalji                                b) Balban  
c) Muhammad Tughluq                           d) Khizr Khan

50. Akbar Nama was written by \_\_\_\_\_  
a) Abul Fazl                                        b) Jahangir  
c) Al-Biruni                                        d) Akbar

51. In the Mughal empire, the person who held a position or rank is called \_\_\_\_\_  
a) subedar                                        b) mansabdar  
c) samantas                                       d) watan

52. The founder of Hindavi Swaraj was \_\_\_\_\_  
a) Ramdas                                        b) Shahji Bhonsle  
c) Sambhaji                                        d) Shivaji

53. The Rajaraheshvara temple was built in \_\_\_\_\_  
a) Thanjavur                                       b) Vrindavan  
c) Masulipatnam                                d) Gujarat

54. The caravan of the Banjaras was called \_\_\_\_\_  
a) Clans    b) Hunas  
c) Chandela                                        d) tanda

55. The first Indian woman to publish an autobiography was \_\_\_\_\_  
a) Rosa Parks                                      b) Rashundari Devi  
c) Om Prakash Valmiki                           d) Laxmi Lakra

## GEOGRAPHY

56. Solid crust or the hard top layer of the Earth is called \_\_\_\_\_.  
a) lithosphere                                      b) biosphere  
c) atmosphere                                        d) hydrosphere
57. The innermost layer of the Earth is called \_\_\_\_\_.  
a) Crust     b) mantle  
c) Core    d) Outer core
58. Mushroom rocks are found in \_\_\_\_\_.  
a) river valleys                                        b) deserts  
c) glaciers     d) oasis
59. Which of the following gases protects us from the harmful rays of the sun?  
a) Ozone    b) Nitrogen  
c) Carbon dioxide                                   d) Oxygen
60. The rhythmic rise and fall of ocean water twice in a day is called \_\_\_\_\_.  
a) Currents    b) Waves  
c) Ocean circulation                                 d) Tides
61. One important variety of coniferous trees is \_\_\_\_\_.  
a) fig    b) rosewood  
c) pine    d) teak
62. Which vehicle does not pollute the environment?  
a) bus    b) cycle  
c) airplane     d) ship
63. Which of the following is a form of communication?  
a) telephone     b) internet  
c) books     d) all of the above
64. An animal of the tropical deciduous forest is the \_\_\_\_\_.  
a) goat    b) elephant  
c) antelope    d) bison
65. Moisture in the air at any time is known as \_\_\_\_\_.  
a) humidity    b) fog  
c) clouds    d) mist

## GENERAL KNOWLEDGE AND CURRENT AFFAIRS

66. Which Indian city is called the ‘Green Capital of India’?  
a) Gandhinagar                                      b) Bengaluru  
c) Kozhikode                                        d) Lucknow
67. What was the purpose of India’s Chandrayaan-3 mission?  
a) To study the Sun                                  b) Soft landing on the south pole of the Moon  
c) Study of Mars                                     d) Soft landing on the north pole of the Moon
68. Which country will host the upcoming Olympics in 2028?  
a) France    b) Australia  
c) Germany    d) United States
69. Which country recently tested the fastest high -speed train ?  
a) Japan    b) Malaysia  
c) China    d) India
70. Which country will host the 2025 G20 Summit?  
a) Luxemburg                                        b) China  
c) South Africa                                      d) Japan

71. Yakshangan is a folk dance of which of the following states?  
a) Odisha  
b) West Bengal  
c) Madhya Pradesh  
d) Karnataka
72. Somnath Temple is situated in which of the following states of India?  
a) Karnataka  
b) Gujarat  
c) Maharashtra  
d) Tamil Nadu
73. Who is the author of the book named 'Oliver Twist'.  
a) Charles Dickens  
b) Benazir Habib  
c) Paul Kennedy  
d) George Orwell
74. Choose the appropriate meaning of the word 'Acrophobia'.  
a) fear of height  
b) fear of night  
c) fear of darkness  
d) fear of fire
75. What did Wilhelm Conrad Roentgen discover?  
a) electric current  
b) electric bulb  
c) x rays  
d) elevator

## LOGIC AND REASONING

76. What comes next in the series?  
2, 5, 10, 17, 26, \_\_\_\_?
- a) 36                                      b) 40  
c) 37                                      d) 48
77. Complete the analogy: Book is to Library as Song is to \_\_\_\_?
- a) Radio                                  b) Music  
c) Album                                d) Concert
78. If A is the mother of B, and B is the father of C, how is A related to C?
- a) Grandmother                        b) Aunt  
c) Mother                                d) Sister
79. A person walks 20 meters south, turns to his right and walks 20 meters, then turns again to his right and walks 20 meters. In which direction is he now from his starting point?
- a) North                                  b) South  
c) East                                    d) West
80. There are 3 friends: A, B, and C. A is taller than B but shorter than C. Who is the tallest?
- a) A                                         b) C  
c) B                                         d) It is not clear

\*\*\*\*\*Space for Rough work\*\*\*\*\*