

Seat No.	
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ENT-66

Total No. of Pages : 19

Entrance Examination, 2026
MCA (Science)
Subject Code: 58729

Day and Date : Tuesday, 21-07-2026

Total Marks : 100

Time : 12.30 p.m. to 02.00 p.m.

Instructions :

- 1) All questions are compulsory.
- 2) Each question carries 1 mark.
- 3) Answers should be marked in the given OMR answer sheet by darkening the appropriate option.
- 4) Follow the instructions given on OMR sheet.
- 5) Rough work shall be done on the sheet provided at the end of question paper.

Q1. Which company officially launched the 'Gemini' AI model in late 2023?

- | | |
|--------------|-----------|
| a) Microsoft | b) Google |
| c) Meta | d) Amazon |

Q2. In 2023, which social media platform underwent a total rebranding to "X"?

- | | |
|--------------|-------------|
| a) Instagram | b) Twitter |
| c) Snapchat | d) LinkedIn |

Q3. Which country became the first to pass a comprehensive 'AI Act' in 2024?

- | | |
|-------------------|----------|
| a) USA | b) China |
| c) European Union | d) India |

Q4. Apple's first spatial computer/VR headset, released in early 2024, is called:

- | | |
|----------------|-----------------|
| a) Oculus Rift | b) HoloLens |
| c) Vision Pro | d) Meta Quest 3 |

Q5. Which programming language was ranked as the most popular by the TIOBE index throughout 2023?

- a) Java
- b) Python
- c) C++
- d) JavaScript

Q6. What is the name of the Indian government's AI-driven language translation platform?

- a) Bhashini
- b) BharatGPT
- c) Anuvadak
- d) Indic Trans

Q7. Which tech giant acquired Activision Blizzard in a record-breaking deal finalized in 2023?

- a) Sony
- b) Microsoft
- c) Tencent
- d) Nintendo

Q8. In 2024, which company surpassed Apple to briefly become the world's most valuable due to AI?

- a) NVIDIA
- b) Intel
- c) Microsoft
- d) TSMC

Q9. The concept of 'Sora,' a text-to-video AI model, was introduced by:

- a) Google DeepMind
- b) OpenAI
- c) Anthropic
- d) Stability AI

Q10. Which country hosted the first Global AI Safety Summit in November 2023?

- a) USA
- b) UK
- c) South Korea
- d) Japan

Q11. Pointing to a woman, Ravi said, "She is the daughter of my grandfather's only son." How is the woman related to Ravi?

- a) Sister
- b) Cousin
- c) Mother
- d) Aunt

Q12. In a science class saniya divides 60 chalk sticks by half and adds fifteen. What answer does she show the Class?

- a) 129 chalk sticks
- b) 130 chalk sticks
- c) 135 chalk sticks
- d) 145 chalk sticks.

Q13. Reading : Knowledge :: Exercise : ?

- a) Strength
- b) Health
- c) Fitness
- d) Energy

Q14. Five persons A, B, C, D, E sit in a row :

A is left of B

C is right of D

B is right of E

D is not at any end

Who sits in the middle?

- a) B
- b) D
- c) C
- d) A

Q15. Oasis is to desert as island is to

- a) River
- b) Ocean
- c) Beach
- d) Sand

Q21. Look at this series V, VIII, XI, XIV, XVII, XX, What number should fill the blank?

- a) IX
- b) XXIII
- c) XV
- d) XVIII

Q22. Choose the pair of words which are different from others in the group:

- a) height: tall
- b) width: broad
- c) depth: deep
- d) length: measure

23. If 'P' means '+', 'Q' means 'x', then, $5 P 3 Q 2 = ?$

- a) 11
- b) 16
- c) 13
- d) 17

Q24. Look at this series: 2, 6, 7, 21, 22, ? Find the missing term:

- a) 40
- b) 44
- c) 66
- d) 61

Q25. In a certain code "TRAIN" is written as "USBJO". How "PLANE" is written in that code?

- a) QMBNF
- b) QNBOF
- c) QMBOF
- d) QMBPG

Q26. If CAT 24(3+1+20). then DOG = ?

- a) 32
- b) 28
- c) 30
- d) 26

Q27. Complete following Alphabet Series:

A, Z, B, Y, C, X, ?

- | | |
|------|------|
| a) V | b) U |
| c) D | d) W |

Q28. A is father of B. B is sister of C. Who is A to C?

- | | |
|------------|----------------|
| a) Uncle | b) Father |
| c) Brother | d) Grandfather |

Q29. IF ACE = BDF, then GHI = ?

- | | |
|--------|--------|
| a) HIJ | b) IJK |
| c) HJK | d) JKL |

Q30. How many such pair of letters are there in the word 'HISTORICAL' which have as many letters between them in the word as they have between them in the English alphabet?

- | | |
|------|------|
| a) 7 | b) 4 |
| c) 6 | d) 8 |

Q31. If $x+y=10$ and $xy=21$, find the value of x^2+y^2 .

- | | |
|-------|-------|
| a) 58 | b) 60 |
| c) 62 | d) 64 |

Q32. If $\log(x)=2$ (base 10), find the value of x.

- | | |
|---------|--------|
| a) 10 | b) 100 |
| c) 1000 | d) 2 |

Q33. A bag has 2 red balls, 3 blue balls. Probability (P) of red is

a) $\frac{4}{5}$ b) $\frac{3}{5}$

c) $\frac{1}{2}$ d) $\frac{2}{5}$

Q34. The Compound Interest (CI) on a sum for 2 years is ₹ 210 and Simple Interest (SI) is ₹ 200. Find the rate of Interest.

a) 5% b) 10%

c) 15% d) 20%

Q35. A car travels first 60 km at 30 km/h and next 60 km at 60 km/h, find the average speed of the car?

a) 40 km/h b) 45 km/h

c) 42 km/h d) 48 km/h

Q36. If $n(A)=10$, $n(B)=8$, $n(A \cap B)=3$, find elements present only in A.

a) 8 b) 5

c) 3 d) 7

Q37. In a class of 40 students, 25 like Maths, 20 like Science, 10 like both Maths & Science. How many students like only Maths?

a) 10 b) 15

c) 20 d) 5

Q38. Find the value of polynomial $2x^2+3x+1$ at $x = 2$.

a) 17 b) 15

c) 13 d) 19

Q39. A man covers a distance at 5 km/h and returns at 3 km/h, find the average speed of man.

- a) 3.75 km/h
- b) 4 km/h
- c) 4.5 km/h
- d) 5 km/h

Q40. A train takes 2 hr to cover 120 km. If speed of train increases by 20km/h, find the new time to cover 120 km.

- a) 1 hr
- b) 1.5 hr
- c) 2 hr
- d) 2.5 hr

Q41. If $A = \{1, 2, 3, 4, 5\}$ $B = \{2, 4, 6\}$ find $(A - B) \cup (A \cap B)$.

- a) $\{1,3,5\}$
- b) $\{1,2,3,4,5,6\}$
- c) $\{2,4\}$
- d) $\{1,2,3,4,5\}$

Q42. If $A = \{1, 2, 3\}$ $B = \{2, 3, 4\}$ $C = \{3, 4, 5\}$ find $(A \cup B) - C$.

- a) $\{1,2\}$
- b) $\{2,3\}$
- c) $(1,2,3)$
- d) $(4,5)$

Q43. In what ratio should 10% and 50% solutions be mixed to get 30% solution?

- a) 1:2
- b) 2:1
- c) 1:1
- d) 3:2

Q44. How much water must be added to 40 Litres of 40% HCL solution so that concentration becomes 25% ?

- a) 20 L
- b) 24 L
- c) 30 L
- d) 16 L

Q45. A solid sphere of radius 6 cm is melted and recast into smaller spheres of radius 2 cm. find the number of small spheres formed.

- a) 9
- b) 18
- c) 36
- d) 27

Q46. A wire of length 44 cm is bent to form a circle. Find the area of circle.

- a) 154 cm^2
- b) 140 cm^2
- c) 120 cm^2
- d) 100 cm^2

Q47. A coin is tossed 3 times. Probability of getting exactly 2 heads is?

- a) $3/2$
- b) $1/8$
- c) $1/2$
- d) $3/8$

Q48. A bag has 4 red balls, 3 blue balls. Two are drawn without replacement. Probability of both being red is?

- a) $6/21$
- b) $12/42$
- c) $2/7$
- d) $4/7$

Q49. If the 3rd term of a Geometric Progression (GP) is 12 and the 6th term is 96, find the common ratio.

- a) 2
- b) 3
- c) 4
- d) 1

Q50. Two trains 120 m and 180 m long run in opposite directions and cross each other in 12 sec. The relative speed of both the trains is?

- a) 15 m/s
- b) 20 m/s
- c) 30 m/s
- d) 25 m/s

Q51. It is high time you studying for your finals.

- | | |
|-----------------|-------------|
| a) start | b) started |
| c) have started | d) starting |

Q52. She divided the cake the four children.

- | | |
|------------|----------|
| a) between | b) among |
| c) to | d) for |

Q53. Not only did he finish the work, he also cleaned the desk.

- | | |
|--------|--------|
| a) but | b) and |
| c) yet | d) so |

Q54. You ought more careful when driving at night.

- | | |
|----------|----------|
| a) he | b) to be |
| c) being | d) been |

Q55. Hard work is indispensable success.

- | | |
|--------|-------|
| a) for | b) to |
| c) at | d) in |

Q56. I am not accustomed working on weekends.

- | | |
|---------|-------|
| a) with | b) of |
| c) to | d) by |

Q57. No sooner did the bell ring the students rushed out.

- | | |
|---------|---------|
| a) when | b) than |
| c) then | d) that |

Q58. A number of students absent today.

- | | |
|--------|-------------|
| a) is | b) are |
| c) was | d) has been |

Q59. The luggage too heavy for me to carry alone.

- | | |
|--------------|---------|
| a) are | b) is |
| c) have been | d) were |

Q60. If she had known about the traffic, she another route.

- | | |
|---------------|---------------------|
| a) will take | b) took |
| c) would take | d) would have taken |

Q61 to Q65: Choose the word nearest in meaning (Synonyms)

Q61. Ephemeral:: ?

- | | |
|--------------|----------------|
| a) Eternal | b) Short-lived |
| c) Permanent | d) Beautiful |

Q62. Clandestine:: ?

- | | |
|-----------|-----------|
| a) Secret | b) Public |
| c) Honest | d) Loud |

Q63. Ambiguous:: ?

- | | |
|-----------|------------|
| a) Clear | b) Unclear |
| c) Simple | d) Exact |

Q64. Tenacious:: ?

- | | |
|---------------|------------|
| a) Yielding | b) Weak |
| c) Persistent | d) Fragile |

Q65. Eloquent:: ?

- | | |
|------------|---------------|
| a) Silent | b) Articulate |
| c) Awkward | d) Muffled |

Q66 to Q70 : Choose the word opposite in meaning (Antonyms)

Q66. Melancholy::?

- | | |
|-----------|---------------|
| a) Sorrow | b) Depression |
| c) Joy | d) Grief |

Q67. Frugal::?

- | | |
|----------------|------------|
| a) Economical | b) Thrifty |
| c) Extravagant | d) Careful |

Q68. Authentic:: ?

- | | |
|---------|-------------|
| a) Real | b) Genuine |
| c) Fake | d) Original |

Q69. Industrious :: ?

- | | |
|----------------|-----------|
| a) Hardworking | b) Lazy |
| c) Busy | d) Active |

Q70. Complacent:: ?

- | | |
|--------------|-----------------|
| a) Satisfied | b) Smug |
| c) Content | d) Dissatisfied |

Q71. The number of Indians in the world is set

- | | |
|-------------|--------------|
| a) finite | b) universal |
| c) infinite | d) equal |

Q72. Power set of empty set has exactly subset.

- | | |
|---------|----------|
| a) one | b) two |
| c) zero | d) three |

Q73. If Mean = Median = Mode, then it is

- a) symmetric distribution
- b) asymmetric distribution
- c) both symmetric distribution and asymmetric distribution
- d) none of these

Q74. A compound statement of form "if p then q" is called an

- | | |
|----------------|---------------|
| a) unknown | b) conclusion |
| c) implication | d) hypothesis |

Q75. If Mean = Median = Mode, then it is

- a) symmetric distribution
- b) asymmetric distribution
- c) both symmetric distribution and asymmetric distribution
- d) none of these

Q81. If the line passing through the points $(-2, 6)$ and $(4, 8)$ is perpendicular to the line passing through the points $(8, 12)$ and $(x, 24)$, then the value of x is

- | | |
|----------|-------|
| a) 12 | b) 4 |
| c) $1/3$ | d) -2 |

Q82. If (a, b) and $(4, 3)$ are end points of the diameter of the circle $x^2 + y^2 + 4x - 6y + 11 = 0$, then $(a, b) = \dots\dots\dots$

- | | |
|--------------|---------------|
| a) $(-8, 3)$ | b) $(8, 3)$ |
| c) $(8, -3)$ | d) $(-8, -3)$ |

Q83. If a question paper consists of 11 questions divided into two sections I and II. Section I consists of 6 questions and Section II consists of 5 questions, then the number of different ways can student select 6 questions, taking at least 2 questions from each section, is

- | | |
|--------|--------|
| a) 275 | b) 350 |
| c) 425 | d) 225 |

Q84. The number of ways in which the letters of the word MACHINE can be arranged such that the vowels may occupy only odd position is

- | | |
|--------|---------|
| a) 576 | b) 625 |
| c) 288 | d) 1152 |

Q85. In an ellipse, the distance between its foci is 6 and its minor axis is 8 then its eccentricity is

- | | |
|----------|----------|
| a) $4/5$ | b) $3/5$ |
| c) $5/3$ | d) $1/2$ |

Q86. If points $P(4, 5, x)$ $Q(3, y, 4)$ and $R(5, 8, 0)$ are collinear, then the value of $x + y$ is

- a) -4
- b) 3
- c) 5
- d) 4

Q87. The Cartesian equation of the plane passing through the points $A(7, 8, 6)$ and parallel to the XY plane is

- a) $z = 1$
- b) $y = 8$
- c) $x = 7$
- d) $z = 6$

Q88. If $x^y * y^x = 16$ then dy/dx at $(2, 2)$ is

- a) -1
- b) 0
- c) 1
- d) 2

Q89. If $y = 1 + xe^y$, then $dy/dx =$

- a) $e^y / (2 - y)$
- b) $e^y / (2 + y)$
- c) $e^y / (1 - e^y)$
- d) $e^y / (1 + e^y)$

Q90. The area of the square increases at the rate of $0.5 \text{ cm}^2/\text{sec}$. The rate at which its perimeter is increasing when the side of the square is 10 cm long, is

- a) 0.4 cm/sec
- b) 0.3 cm/sec
- c) 0.2 cm/sec
- d) 0.1 cm/sec

Q96. Which of the following is a NoSQL database?

- a) MongoDB
- b) MySQL
- c) PostgreSQL
- d) Oracle Database

Q97. What does the term "Encryption" achieve?

- a) Data compression.
- b) Protecting data by converting it into a coded format to prevent unauthorized access.
- c) Increasing the brightness of the screen.
- d) Organizing files in a folder.

Q98. Cybersecurity focuses on?

- a) Data processing
- b) Storage devices
- c) Protecting systems and data
- d) Hardware design

Q99. What is the main purpose of a "Firewall" in a computer network?

- a) To speed up internet
- b) To prevent unauthorized access
- c) To store passwords
- d) To act as a backup

Q100. Which technology allows a CPU to execute multiple instructions simultaneously?

- a) Pipelining
- b) Serial processing
- c) Single-threaded execution
- d) Manual cooling

- Rough Work -