

FIITJEE COMMON TEST

LITTLE GENIE (2021)
BATCHES: A - LOT
PHASE TEST (PHASE – I)
QP CODE: XXXX.X

MENTAL ABILITY TEST (MAT)

Time: 1:30 Hours

Maximum Marks: 90

Please read the instructions carefully.

INSTRUCTIONS

A: General :

1. Immediately fill in the particulars on this page of the Test Booklet with Blue/Black Ball point pen.
2. Use **Blue/Black Ball Point Pen only** for writing particulars on **Side-1** and **Side-2** of the Answer Sheet. **Use of pencil is strictly prohibited.**
3. Darken the appropriate bubbles with **Blue/Black Ball Point Pen** only.
4. Blank papers, clipboards, log tables, slide rules, calculators, cellular phones, pagers and electronic gadgets in any form are not allowed.
5. The answer sheet, a machine-gradable Objective Response Sheet (ORS) is provided separately.
6. Do not Tamper/mutilate the **ORS** or this booklet.
7. No additional sheets will be provided for rough work.
8. On completion of this test, the candidate must hand over the Answer Sheet to the Invigilator on duty in the Room/Hall. **However, the candidates are allowed to take away this Test Booklet with them.**

B: Questions paper format and Marking Scheme :

1. The question paper consists of **90** questions.
2. For each question you will be **awarded 1 mark** if you darken the bubble corresponding to the correct answer and zero mark if no bubbles is darkened. **No Negative Mark will be awarded.**

Enrollment No. :

Batch : _____

Name : _____ Date : _____

Candidate's Signature _____ Invigilator's Signature: _____

Direction (1-10): What value should come in place of question mark (?) in the following number series?

1. 120, 99, 80, 63, 48, ?
 (a) 35 (b) 36
 (c) 37 (d) 38
 1. A
2. 6, 17, 39, 72, ?
 (a) 89 (b) 94
 (c) 116 (d) 123
 2. C
3. 1, 9, 25, 49, 81, ?
 (a) 169 (b) 112
 (c) 121 (d) 144
 3. C
4. 0, 1, 2, 2, 4, 3, 6, 4, 8, 5, ?
 (a) 8 (b) 7
 (c) 12 (d) 10
 4. D
5. 1, 4, 9, 16, 25
 (A) 35 (B) 36
 (C) 48 (D) 49
 5. B
6. 20, 19, 17, _____, 10, 5
 (A) 12 (B) 13
 (C) 14 (D) 15
 6. C
7. 2, 3, 5, 7, 11, _____, 17
 (A) 12 (B) 13
 (C) 14 (D) 15
 7. B
8. 6, 11, 21, 36, 56, _____
 (A) 42 (B) 51
 (C) 81 (D) 91
 8. C
9. 1, 6, 13, 22, 33
 (A) 44 (B) 46
 (C) 47 (D) 45
 9. B
10. 9, 27, 81, _____
 (A) 324 (B) 243
 (C) 512 (D) 676
 10. B

Directions (11-20):- In these series, you will be looking at both the letter pattern and the number pattern. Fill the blank in the middle of the series or end of the series.

11. 5, 9, 17, 29, 45, _____
 (A) 60 (B) 65
 (C) 68 (D) 70

11. D
12. 7, 15, 31, 63, _____
 (A) 92 (B) 115
 (C) 127 (D) 131
12. C
13. ___ __ babba _ a ___
 (A) abab (B) baaa
 (C) bbab (D) babb
13. D
14. B-4, D-16, F-36, _____
 (A) G-49 (B) H-64
 (C) J-100 (D) H-81@QE
14. B
15. EH, JK, ON, _____
 (A) UQ (B) TR
 (C) TQ (D) UR
15. A
16. RAB, SCD, TEF, _____, VIJ
 (A) GVH (B) UGH
 (C) UHG (D) HGU
16. B
17. SRQ, PON, MLK, _____, GFE
 (A) IJH (B) JIH
 (C) JHI (D) HIJ
17. B
18. KEL, LFM, MGN, NHO, OIP, _____
 (A) JPO (B) PJO
 (C) PJQ (D) None of these
18. C
19. E₂HI, _____, EHI₄, E₅HI, EH₆I
 (A) EH₃I (B) EI₃H
 (C) I₂E₃H (D) None of these
19. A
20. GBH, HBG, IBJ, JBI, _____
 (A) KBM (B) KBL
 (C) LBK (D) MBL
20. B

Directions (21-25): In each of the following questions a letter-series is given, in which some letters are missing. The missing letters are given in the proper sequence as one of the alternatives. Choose the correct alternatives.

21. bca_b_aabc_a_caa
 (A) acab (B) bcbb
 (D) ccab (D) cbab
21. A
22. a _ ba _ b _ b _ a _ b
 (A) abaab (B) abbab
 (C) bbabb (D) aabba

22. C
23. _ nmmn _ mmnn _ mnnm _
 (A) nmmn (B) mnnm
 (C) nnmm (D) nmnm
23. C
24. ab _ _ _ b _ bbaa _
 (A) abaab (B) abbab
 (C) baaab (D) babba
24. C
25. cccb _ aa _ cc _ bbaa _ c
 (A) aebe (B) baca
 (C) baba (D) acba
25. B

Directions (26-45): In each of the following questions, select the related word/letters/number from the given alternatives.

26. Binocular : View :: Shovel : ?
 (a) Scoop (b) Guard
 (c) Bore (d) Grind
26. A
27. AL : CN :: DA : ?
 (A) BL (B) AA
 (C) HR (D) FC
27. D
28. ABC : ZYX :: CBA : ?
 (A) XYZ (B) BCA
 (C) YZX (D) XZY
28. A
29. AZBY : ZAYB :: CXDW : ?
 (A) AYBZ (B) EVFU
 (C) BYAZ (D) XCWD
29. D
30. 25:81 :: 36 : ?
 (A) 121 (B) 93
 (C) 65 (D) 103
30. A
31. Black : White :: up : ?
 (A) Opposite (B) Disappointment
 (C) Wall (D) Down
31. D
32. Book : Author :: Statue : ?
 (A) Mason (B) Painter
 (C) Sculptor (D) Calligrapher
32. C
33. Tree : Forest :: Grass : ?
 (A) Lawn (B) Garden
 (C) Park (D) Field
33. A

34. 292 : 146 :: 582 : ?
 (A) 272 (B) 286
 (C) 291 (D) 292
34. C
35. 6 : 18 :: 4 : ?_
 (A) 10 (B) 8
 (C) 6 (D) 4
35. B
36. JMPQ : HKNO :: LCOP : ?
 (a) JANM (b) JAMN
 (c) MAJP (d) JANN
36. B
37. 6 : 215 :: 8 : ?
 (a) 510 (b) 511
 (c) 512 (d) 520
37. B
38. Fox : Vixen :: Cock : ?
 (a) Caterpillar (b) Hen
 (c) Chick (d) Bee
38. B
39. PQR : MNO :: DEF : ?
 (a) ACC (b) ACB
 (c) ABC (d) BCA
39. C
40. 13 : 167 :: 15 : ?
 (a) 223 (b) 224
 (c) 225 (d) 227
40. D
41. Scissors : Cloth :: Axe : ?
 (a) Stone (b) Wood
 (c) Hunt (d) Vegetables
41. B
42. PQRS : QSUW :: ABCD : ?
 (a) BCDE (b) BDHF
 (c) BDGI (d) BDFH
42. D
43. REKM : UHNP :: PKDL : ?
 (a) SNGO (b) SGNO
 (c) SNOG (d) MHAG
43. A
44. 5 : 125 :: 11 : ?
 (a) 1231 (b) 1331
 (c) 1441 (d) 1551
44. B
45. 3 : 12 :: 8 : ?
 (a) 64 (b) 72
 (c) 40 (d) 80

45. A

Directio (46-65):

46. If '+' means 'minus', 'x' means 'divided by', '÷' means 'plus' and '-' means 'multiplied by' then which of the following will be the value of the expression $252 \times 9 - 5 + 32 \div 92$?

- (A) 95 (B) 168
(C) 192 (D) 200

46. D

47. If '+' means x, x means -, ÷ means +, and - means ÷, then which of the following gives the result of

- $175 - 25 \div 5 + 20 \times 3 + 10$?
(A) 77 (B) 160
(C) 240 (D) 2370

47. A

48. If L stands for +, M stands for -, N stands for x, P stands for ÷, then $14 N 10 L 42 P 2 M 8 = ?$

- (A) 153 (B) 216
(C) 248 (D) 251

48. A

49. If '+' means 'divided by', '-' means 'added to', 'x' means 'subtracted from' and '÷' means 'multiplied by', then what is the value of $24 \div 12 - 18 + 9$?

- (A) - 25 (B) 0.72
(C) 15.30 (D) 290

49. D

50. If + means ÷, ÷ means -, - means x, x means +, then $12 + 6 \div 3 - 2 \times 8 = ?$

- (A) - 2 (B) 2
(C) 4 (D) 8

50. C

51. If + means -, - means x, ÷ means + and x means ÷, then $15 - 3 + 10 \times 5 \div 5 = ?$

- (A) 5 (B) 22
(C) 48 (D) 52

51. C

52. If x means ÷, - means x, ÷ means + and + means -, then $(3 - 15 \div 19) \times 8 + 6 = ?$

- (A) - 1 (B) 2
(C) 4 (D) 8

52. B

53. If + stands for x, - for ÷, x for - and ÷ for +, find the value of $26 + 24 - 4 \times 5 \div 2$.

- (A) 220 (B) 376
(C) 153 (D) 155

53. C

54. If Q means 'add to', J means 'multiply by', T means 'subtract from' and K means 'divide by' then

- $30 K 2 Q 3 J 6 T 5 = ?$
(A) 18 (B) 28
(C) 31 (D) 103

54. B

55. If P denotes \div , Q denotes \times , R denotes $+$ and S denotes $-$, then what is the value of $18 Q 12 P 4 R 5 S 6$?
 (A) 53 (B) 59
 (C) 63 (D) 65
55. A
56. If '+' means '-', '-' means '*', '*' means '/', '/' means '+', then $15 \times 3 / 15 + 5 - 2 = ?$
 (A) 0 (B) 10
 (C) 20 (D) 6
56. B
57. If $2 \times 3 = 12$, $3 \times 4 = 20$ and $4 \times 5 = 30$, then 2×6 is
 (A) 18 (B) 12
 (C) 21 (D) None of these
57. C
58. If Q means 'add to', J means 'multiply by', T means 'subtract from' and K means 'divide by', then $26 K 2 Q 3 J 6 T 4 = ?$
 (a) 10 (b) 28
 (c) 30 (d) 27
58. D
59. If ' \times ' means '-', ' \div ' means '+', $+$ means ' \times ', then $18 \times 5 \div 5 + 6$ is equal to
 (A) 58 (B) 49
 (C) 43 (D) 37
59. C
60. If the following equations has to be balance, then the signs of which of the following options will be used?
 $24 \ 6 \ 12 \ 16 = 0$
 (A) -, + and + (B) \div , + and \div
 (C) -, - and - (D) \div , + and -
60. D
61. Which one of the given interchange in signs would make the given equation correct?
 $10 - 2 + 9 \times 2 \div 4 = 19$
 (A) - and \div (B) - and +
 (C) \div and \times (D) \times and \div
61. A
62. If $9 \times 5 \times 2 = 529$ and $4 \times 7 \times 2 = 724$, then $3 \times 9 \times 8 = ?$
 (A) 983 (B) 839
 (C) 938 (D) 893
62. A
63. If \times stands for 'addition', \div stands for 'subtraction', $+$ stands for 'multiplication' and $-$ stands for 'division', then $20 \times 8 \div 8 - 4 + 2 = ?$
 (A) 80 (B) 25
 (C) 24 (D) 5
63. C
64. Given interchanges:
 Signs + and \times and numbers 4 and 5.
 (A) $5 \times 4 + 20 = 40$ (B) $5 \times 4 + 20 = 85$
 (C) $5 \times 4 + 20 = 104$ (D) $5 \times 4 + 20 = 95$
64. C

65. In a certain code language, '+' represents 'x', '-' represents '+', 'x' represents '÷' and '÷' represents '-'. What is the answer to the following question?
 $27 \times 3 \div 30 + 5 - 125 = ?$
- (A) 69 (B) 67
 (C) -15 (D) -16
65. D

Direction (66-70): Find the missing number (x) in the series.

66. 1, 4, 9, 16, 25, x
 (A) 35 (B) 36
 (C) 48 (D) 49
66. B
67. 20, 19, 17, x, 10, 5
 (A) 12 (B) 13
 (C) 14 (D) 15
67. C
68. 2, 3, 5, 7, 11, x, 17
 (A) 12 (B) 13
 (C) 14 (D) 15
68. B
69. 3, 9, 27, 81, x
 (A) 324 (B) 243
 (C) 210 (D) 162
69. B
70. 1, 9, 17, 33, 49, 73, x
 (A) 97 (B) 98
 (C) 99 (D) 100
70. A

Directions (Q. 71 -75): In each of the following questions find out the alternative which will replace the question mark.

71. CUP : LIP :: BIRD : ?
 (A) BUSH (B) GRASS
 (C) FOREST (D) BEAK
71. D
72. Flow : River :: Stagnant : ?
 (A) Rain (B) Stream
 (C) Pool (D) Canal
72. C
73. Paw : Cat :: Hoof : ?
 (A) Lamb (D) Elephant
 (C) Lion (D) Horse
73. D
74. Ornithologist : Bird :: Archeologist : ?
 (A) Islands (B) Mankind
 (C) Archealogy (D) Aquatic
74. C

75. Peacock : India :: Bear : ?
 (A) Australia (B) America
 (C) Russia (D) England
75. C
76. If - means \times , \times means +, + means \div and \div means -, then $40 \times 12 + 3 - 6 \div 60 = ?$
 (A) 7.95 (B) 16
 (C) 44 (D) None of these
76. D
77. Given interchanges :
 Signs + and - and numbers 4 and 8.
 (A) $4 \div 8 - 12 = 16$ (B) $4 - 8 + 12 = 0$
 (C) $8 \div 4 - 12 = 24$ (D) $8 - 4 \div 12 = 8$
77. B
78. In the statement below, two signs in the equation given have been interchanged. Find out these two signs to make the equation correct:
 $3 \div 5 \times 8 + 2 - 10 = 13$
 (A) + and - (B) - and \times
 (C) \div and - (D) \div and +
78. D
79. Given interchanges :
 Signs - and \div and numbers 4 and 8.
 (A) $6 - 8 \div 4 = -1$ (B) $8 - 6 \div 4 = 1$
 (C) $4 \div 8 - 2 = 6$ (D) $4 - 8 \div 6 = 2$
79. C
80. If + means \times , \div means -, \times means \div and - means +, what will be the value of $4 + 11 \div 5 - 55 = ?$
 (A) -48.5 (B) -11
 (C) 79 (D) None of these
80. D

Directions (81-85): In each of the following questions, various terms of an alphanumerical series are given with one or more terms missing as shown by (?). Choose the missing terms out of the given alternatives.

81. 3F, 6G, 11I, 18L, ?
 (A) 21O (B) 25N
 (C) 27P (D) 27Q
81. C
82. D-4, F-6, H-8, J-10, ?, ?
 (A) K-12, M-13 (B) L-12, M-14
 (C) L-12, N-14 (D) K-12, M-14
82. C
83. BF, CH, ?, HO, LT
 (A) DN (B) EL
 (C) EK (D) EM
83. C
84. 2A11, 4D13, 12G17, ?
 (A) 36I19 (B) 48J21
 (C) 36J21 (D) 48J23
84. D

85. C4X, F9U, I16R, ?
 (A) K25P (B) Y44B
 (C) L25O (D) Z88B
 85. C

Direction (86-90): In each of the following questions, various terms of an alphabet series are given with one or more terms missing as shown by (?). Choose the missing terms out of the given alternatives.

86. AYD, BVF, DRH, ?, KGL
 (A) FMI (B) GMJ
 (C) HLK (D) GLJ
 86. B
87. A, CD, GHI, ?, UVWXY
 (A) LMNO (B) MNO
 (C) MNOP (D) NOPQ
 87. C
88. AK, EO, IS, ?
 (A) MW (B) MV
 (C) XW (D) NX
 88. A
89. MHZ, NIW, OKT, PNQ, ?
 (A) RRN (B) QRN
 (C) QRM (D) QRM
 89. B
90. DHL, PTX, BFJ, ?
 (A) CGK (B) KOS
 (C) NRV (D) RVZ
 90. C