



MOMENTUM

PRE-FOUNDATION

(A Division of Momentum Education Pvt. Ltd)

DATE :

DURATION: 2 HRS.

MARKS: 280

MTSE

MTSE

(MODEL PAPER)

MOMENTUM TALENT SEARCH EXAM

TEST ID-2101

CLASS: 6 (MOVING TO CLASS 7)

TEST NO - 1

INSTRUCTIONS

A. GENERAL

1. Please read the Instructions carefully, You are allotted 10 minutes specially for this purpose.
2. Blank papers, clip boards, log tables, slide rule, calculators, mobiles or any other electronic instrument in any form is **"NOT PERMISSIBLE"**.
3. Before starting the paper, fill up the required details in the blank spaces provided in the answersheet.
4. Using a **Blue/ Black Pen**, darken the bubbles on the **OMR sheet**.
5. **DO NOT TAMPER WITH/MUTILATE THE OMR OR THE BOOKLET.**
6. No rough sheets will be provided by the invigilators. All the rough work is to be done in the blank space provided in the question paper.

B. FILLING THE RIGHT PART OF THE OMR

7. Write your name, Bach and the Father's name in the boxes provided on the right part of the OMR. Do not write any of this information anywhere else. Darken the appropriate bubble under each digit of your Student ID Number and Test ID Number.
8. Do not fold or make any stray marks on the Answer Sheet.
9. On completion of the test, the candidate must hand over the Answer Sheet & Test Booklet to the Invigilator on duty in the Room / Hall.
10. Follow instructions by invigilator/Centre Superintendent (If any).
11. **Please fill in all the correct information on back page of this paper.**

C. QUESTION PAPER FORMAT :

This Question Paper consists of 70 objective type questions.

D. MARKING SCHEME :

- 4 Marks will be awarded for each Correct Answer.
- 1 Mark will be deducted for each incorrect Answer.
- 0 Marks will be awarded for unattempted Questions

Name of the Candidate

I have read all the instructions and shall abide by them

.....
Signature of the Candidate

Candidate ID

I have verified all the information filled in by the Candidate

.....
Signature of the Invigilator

MOMENTUM

Mathematics [Part- I]

-
1. $6 - (-8) = ?$
(a) -2 (b) 2 (c) 14 (d) None of these
 2. The sum of two integers is 6. If one of them is -3, then the other is-
(a) -9 (b) 9 (c) 3 (d) -3
 3. The additive inverse of -6 is-
(a) $\frac{1}{6}$ (b) $-\frac{1}{6}$ (c) 6 (d) 5
 4. $(-36) \div (-9) = ?$
(a) 4 (b) -4 (c) 6 (d) None of these
 5. $(-15) \times 8 + (-15) \times 2 = ?$
(a) 150 (b) -150 (c) 90 (d) -90
 6. $\left(3\frac{1}{4} - 2\frac{1}{3}\right) = ?$
(a) $1\frac{1}{12}$ (b) $\frac{1}{12}$ (c) $1\frac{1}{11}$ (d) $\frac{11}{12}$
 7. The reciprocal of $1\frac{2}{3}$ is -
(a) $3\frac{1}{2}$ (b) $2\frac{1}{3}$ (c) $1\frac{1}{3}$ (d) $\frac{3}{5}$
-

Space for rough work

MOMENTUM

8. Which of the following is the correct statement ?
(a) $\frac{2}{3} < \frac{3}{5} < \frac{14}{15}$ (b) $\frac{3}{5} < \frac{2}{3} < \frac{14}{15}$ (c) $\frac{14}{15} < \frac{3}{5} < \frac{2}{3}$ (d) None of these
9. By what number should $1\frac{3}{4}$ be divided to get $2\frac{1}{2}$?
(a) $\frac{3}{7}$ (b) $1\frac{2}{5}$ (c) $\frac{7}{10}$ (d) $1\frac{3}{7}$
10. $\frac{-6}{13} - \left(\frac{-7}{15}\right) = ?$
(a) $\frac{-181}{195}$ (b) $\frac{181}{195}$ (c) $\frac{1}{195}$ (d) $\frac{-1}{195}$
11. $\frac{-3}{8} \div 0 = ?$
(a) $\frac{-3}{8}$ (b) 0 (c) $\frac{-8}{3}$ (d) None of these
12. $\left\{\left(\frac{1}{3}\right)^{-3} - \left(\frac{1}{2}\right)^{-3}\right\} \div \left(\frac{1}{4}\right)^{-3} = ?$
(a) $\frac{19}{64}$ (b) $\frac{64}{19}$ (c) $\frac{27}{16}$ (d) None of these

Space for rough work

MOMENTUM

13. $\left(\frac{-1}{5}\right)^3 \div \left(\frac{-1}{5}\right)^8 = ?$

- (a) $\left(-\frac{1}{5}\right)^5$ (b) $\left(\frac{-1}{5}\right)^{11}$ (c) $(-5)^5$ (d) $\left(\frac{1}{5}\right)^5$

14. $\left(\frac{-2}{5}\right)^7 \div \left(\frac{-2}{5}\right)^5 = ?$

- (a) $\frac{4}{25}$ (b) $\frac{-4}{25}$ (c) $\left(\frac{-2}{5}\right)^{12}$ (d) $\frac{25}{4}$

15. If 16 men can reap a field in 30 days, in how many days will 20 men reap the same field

- (a) $10\frac{2}{3}$ days (b) 24 days (c) 25 days (d) $37\frac{1}{2}$ days

16. $8\frac{1}{3}\%$ expressed as a fraction, is

- (a) $\frac{25}{3}$ (b) $\frac{3}{25}$ (c) $\frac{1}{12}$ (d) $\frac{1}{4}$

17. If $x\%$ of $75 = 9$, then the value of x is-

- (a) 16 (b) 14 (c) 12 (d) 8

18. A vendor bought lemons at 6 for a rupee and sold them at 4 for a rupee. His gain % is-

- (a) 50 % (b) 40 % (c) $33\frac{1}{3}\%$ (d) $16\frac{2}{3}\%$

Space for rough work

MOMENTUM

19. The supplement of 45° is -
(a) 45° (b) 75° (c) 135° (d) 155°
20. The angles of a triangle are in the ratio $2:3:7$. The measure of the largest angle is-
(a) 84° (b) 98° (c) 105° (d) 91°
21. In a $\triangle ABC$ it is given that $\angle B = 37^\circ$ and $\angle C = 29^\circ$. Then $\angle A = ?$
(a) 86° (b) 66° (c) 114° (d) 57°
22. The angles of a triangle are $(3x)^\circ$, $(2x-7)^\circ$ and $(4x-11)^\circ$. Then, $x = ?$
(a) 18 (b) 20 (c) 22 (d) 30
23. The length of a rectangle is 16 cm and the length of its diagonal is 20 cm. The area of the rectangle is-
(a) 320 cm^2 (b) 160 cm^2 (c) 192 cm^2 (d) 156 cm^2
24. The ratio of the areas of two squares is $9:1$, then the ratio of their perimeters is-
(a) $2:1$ (b) $3:1$ (c) $3:2$ (d) $4:1$
25. The area of a circle is 24.64 m^2 . The circumference of the circle is -
(a) 14.64 m (b) 16.36 m (c) 17.60 m (d) 18.40 m

Space for rough work

MOMENTUM

Science [Part- II]

-
26. The motion of a pendulum is -
(a) Periodic (b) Circular (c) Curvilinear (d) Rotational
27. A filament is used in a -
(a) Bulb (b) Battery (c) Cell (d) Switch
28. A magnet is used in a -
(a) Bulb (b) Cell (c) Motor (d) Compass
29. The motion of the arms of soldiers in a march past is -
(a) Circular (b) Oscillatory (c) Periodic (d) Nonperiodic
30. In a region of total solar eclipse -
(a) One can see the sun (b) One can see part of the sun
(c) One cannot see the sun (d) One cannot see a part of the sun
31. Shadows form because -
(a) Opaque objects reflect light
(b) Opaque object do not allow light to pass through them
(c) Light travels in one direction from a source
(d) Light bends around an opaque object
32. The insulating material on electric wires can be -
(a) Aluminium (b) Copper (c) Enamel (d) Plastic
33. Which of these are nonmagnetic -
(a) Copper (b) Nickel (c) Iron (d) Cobalt
34. The distance between delhi and Mumbai is usually expressed in unit of -
(a) Decametre (b) Metre (c) Centimetre (d) Kilometre
35. Which of the following does not express a time interval -
(a) A day (b) A second
(c) A school period (d) Time of the first bell in the school
-

Space for rough work

MOMENTUM

36. Which of the following materials is lustrous?
(a) Wood (b) Gold (c) Paper (d) Sulphur
37. Identify the malleable substance among the following.
(a) Wood (b) Stone (c) Glass (d) Aluminium
38. Which of the following is not opaque?
(a) Wood (b) Frosted glass (c) Iron (d) Cardboard
39. Identify the odd one.
(a) Milk (b) Oil (c) Ink (d) Sugar
40. Which of the following fibres are obtained from bolls of flowers?
(a) Silk (b) Jute (c) Flax (d) Cotton
41. Which of the following grows best in a black soil and warm climate?
(a) Cotton (b) Flax (c) Jute (d) Polyester
42. Which of the following is obtained from the stem of a plant?
(a) Jute (b) Cotton (c) Wool (d) Polyester
43. Which of the following is a synthetic fibre?
(a) Nylon (b) Polyester (c) Terylene (d) All of these
44. Which of the following will burn the fastest?
(a) Cotton (b) Paper (c) Jute (d) Polyester

Space for rough work

MOMENTUM

45. Which of the following is an alloy ?
(a) Iron (b) Gold (c) Stainless steel (d) Copper
46. This food is obtained from animals-
(a) Sugar (b) Honey (c) Jaggery (d) Jam
47. Which part of plant is cabbage ?
(a) Root (b) Fruit (c) Leaves (d) Flower
48. Green plants make their own food, so they are called-
(a) Autotrophs (b) Heterotrophs (c) Autotrophs (d) Heterophyte
49. Plants take in & give out gases through-
(a) Roots (b) Stems (c) Stomata (d) Special organ
50. Which of these are decomposers ?
(a) Flowering plants (b) Bacteria (c) Ferns (d) None of these
51. Xerophytes have-
(a) Small roots (b) Broad leaves (c) Many branches (d) Long roots
52. The male parts of the flower are called-
(a) Pistils (b) Carpels (c) Androecium (d) Styles
53. Fixed joints are found in the-
(a) Wrist (b) Elbow (c) Skull (d) Ankle
54. Which of the following is not a form of precipitation-
(a) Hail (b) Snow (c) Rain (d) River
55. Which gas is released in photosynthesis ?
(a) Nitrogen (b) CO₂ (c) Oxygen (d) Water vapour

Space for rough work

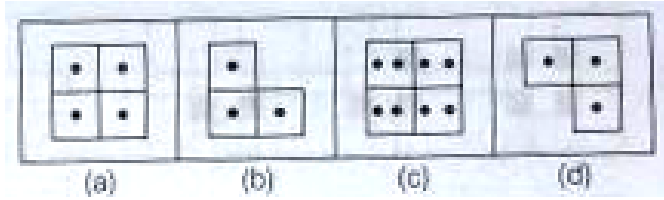
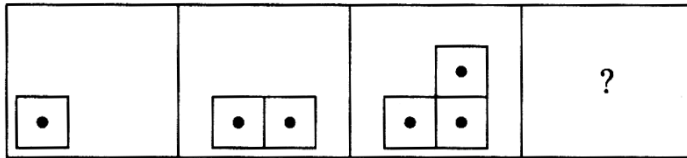
MOMENTUM

Reasoning [Part- III]

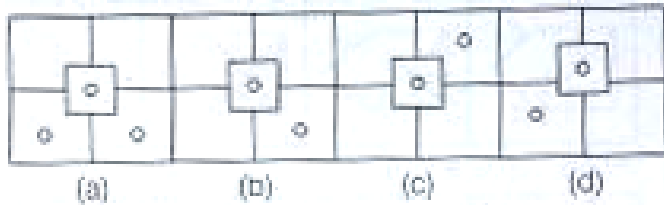
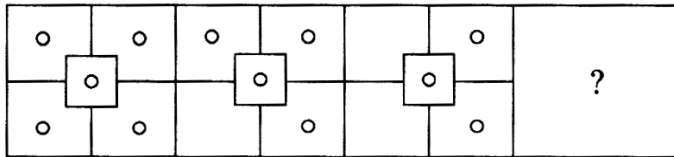
56. If 'TEAM' is coded as 'VGCO', then 'LIFE' will be coded as
(a) NJGE (b) NLIH (c) NKHH (d) NKHG
57. In a certain code language 'MAN' is coded as 'NBO' then in the same code language 'TUL' will be written as
(a) UVP (b) UWN (c) UVM (d) UMW
58. Patien : Doctor : Student ?
(a) School (b) Teacher (c) Mother (d) Friend
59. Docotor : Hospital
(a) Plumber : Wrench (b) Chef : Kitchen (c) Water : Reservoir (d) Farmer : Village
60. 25, 20, 15, 10,.....
(a) 50 (b) 75 (c) 100 (d) 5
61. 0, 3, 8, 15,.....,35
(a) 24 (b) 25 (c) 26 (d) 20
62. Pointing to Amit, Anita said, "His mother is the only daughter of my mother". How is Anita related to the Amit ?
(a) Mother (b) Daughter (c) Sister (d) Grandmother
63. Vishnu ranks 16th from the top and 49th from the bottom in a class. How many students are there in the class?
(a) 66 (b) 65 (c) 64 (d) Cannot be determined
64. If - means \times , $-$ means \div , \times means $-$ and \div means $+$, then the value of $14 - 10 \times 4 \div 16 + 8$ is
(a) 241 (b) 124 (c) -40 (d) -12
65. If - means \times , $-$ means \div , \times means $-$ and \div means $+$, then the value of $32 \div 8 - 4 \times 12 + 4$ is
(a) -14 (b) -41 (c) -40 (d) -12
66. If 3rd January of a year was Thursday, what will be the day on 25th January of the same year?
(a) Thursday (b) Friday (c) Saturday (d) Sunday
67. A man seeing a watch in the mirror which is hanging on the wall. In the mirror, the condition of watch is hour hand on 12 and minute hand on 9. Find out the exact time in watch.
(a) 2 pm (b) 8 pm (c) 7 pm (d) 3 pm

Space for rough work

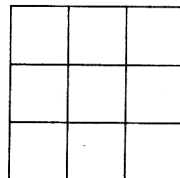
68.



69.



70. How many squares are present in the given figure?



(a) 9

(b) 10

(c) 11

(d) 14

Space for rough work

C. QUESTION PAPER FORMAT

The question paper consists of 3 parts I, II & III Mathematics, Science & Reasoning respectively.

D. MARKING SCHEME

There are three parts in the question paper. The distribution of marks subjectwise in each part is as under for each correct response :

PART	SUBJECT	QUESTION NO.	MARKS
Part - I	MATHEMATICS	01 to 25	4
Part - II	SCIENCE	26 to 55	4
Part - III	REASONING	56 to 70	4

You must fill the bubble in OMR in following manner. For example if only 'b' choice is correct then



If you fill the bubble for any option other than the correct option then, your response will be considered incorrect. 1/4 (one four) of allotted marks i.e. 1 mark if a question carries 4 marks will be deducted for indicating incorrect response of each question. No. deduction from the total score will be made if no response is indicated for a question in the answer sheet.

GENERAL INFORMATION

Fill by the candidate :-

Candidate ID : _____

- Candidate Name : _____
- Father's Name : _____
- Mother's Name : _____
- Category : ☐ GEN ☐ OBC ☐ SC ☐ ST
- Mobile No. 1.(G) _____ 2.(P) _____
- NTSE Qualified ☐ Y ☐ N 7. KVPY ☐ Y ☐ N 8. OLYMPIAD ☐ Y ☐ N
- Board ☐ CBSE ☐ ICSE / ISC ☐ U.P. Others : _____
- Last Class : _____ % _____ 10th % _____ 12th % _____
- Last School Name : _____ City _____
- Any other achievement : _____
- Have you attempted any admission test before : ☐ Y ☐ N _____
- Old student of Momentum or admitted : ☐ Y ☐ N If yes, St.Id _____ /Batch _____

Disclaimer :

I hereby solemnly and sincerely affirm that all the particulars stated by me in this form are true and correct. However, if any information furnished herein is found false, wrong, incorrect or inaccurate, I understand that my candidate for Admission Test-2021 will be cancelled and lead to cancellation of the test result.

Candidate Signature _____

Invigilator Signature _____

MOMENTUM

ABOVE AXIS BANK, BETIAHATA CHOWK, GORAKHPUR

PHONES : 6389138701, 02