AdmitVerse

dMAT Sample Questions

30 practice items with worked solutions

The dMAT (digital Master Test) is g.a.s.t.'s aptitude test in the APS India process for Master's applicants to Germany. The first sitting is 26 September 2026. This booklet holds 30 practice items in the published format, with a full solution for every one.

Work through Part 1 without looking ahead. Part 2 gives the answer and the reasoning for each item, including why the tempting option fails — which is the part that transfers to the next question.

WHAT IS IN HERE

10 Core Module 1 - Figure Sequences

10 Core Module 2 - Mathematical Equations

6 Core Module 3 - Latin Squares

4 General Academic Module

READING THE MATRICES

Figure Sequences items are drawn graphically in the real exam. Here they are printed as text grids, which models the reasoning exactly and the visual density not at all:

```
X   filled square        O   hollow square
+   second figure         .   empty cell
```

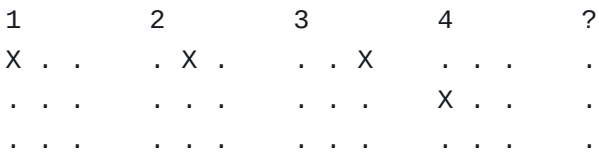
Part 1

Thirty questions. No calculator, and no notes — as in the exam.

CORE MODULE 1 - FIGURE SEQUENCES

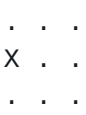
Q1

The shaded cell moves by the same rule each step. Which matrix comes next?



A)

B)



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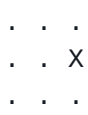
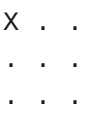
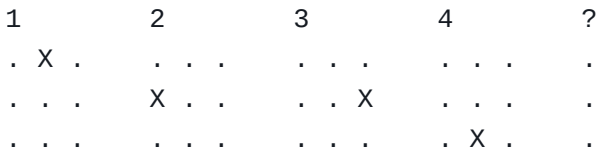


D)



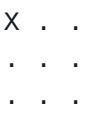
Q2

The shaded cell moves by the same rule each step. Which matrix comes next?

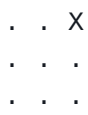


A)

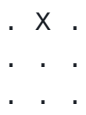
B)



C)

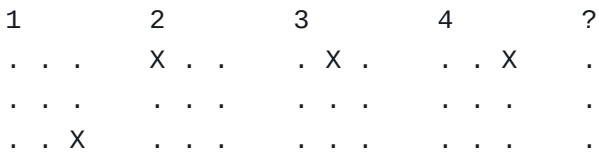


D)

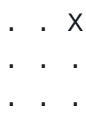


Q3

The shaded cell moves by the same rule each step. Which matrix comes next?

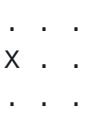


A)



B)

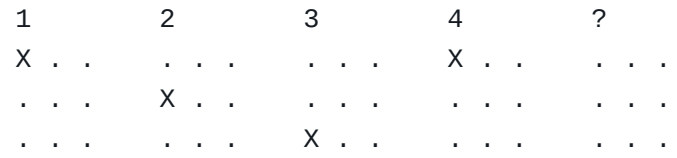
C)



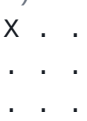
D)

Q4

The shaded cell moves by the same rule each step. Which matrix comes next?



A)



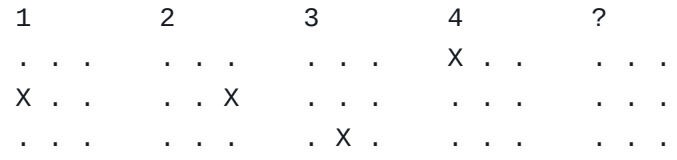
B)

C)

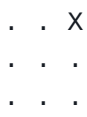
D)

Q5

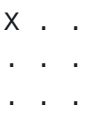
The shaded cell moves by the same rule each step. Which matrix comes next?



A)

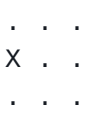


B)



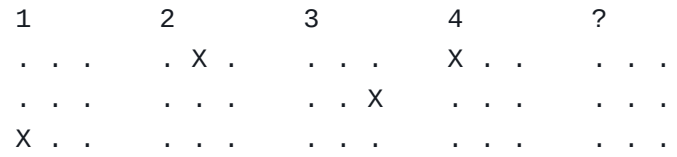
C)

D)

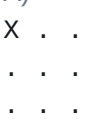


Q6

The shaded cell moves by the same rule each step. Which matrix comes next?



A)



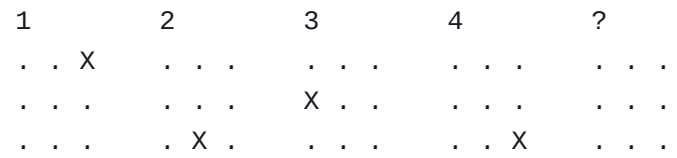
B)

C)

D)

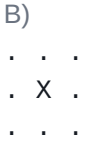
Q7

The shaded cell moves by the same rule each step. Which matrix comes next?

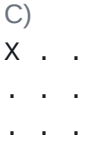


A)

B)



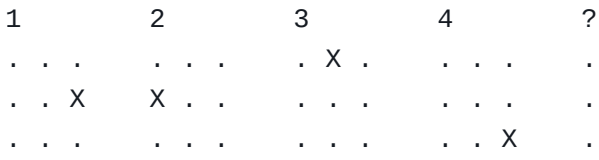
C)



D)

Q8

The shaded cell moves by the same rule each step. Which matrix comes next?



A)

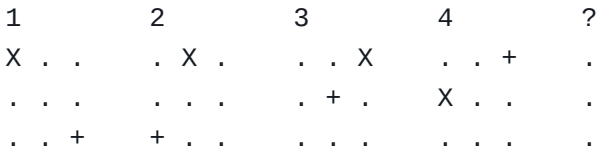
B)

C)

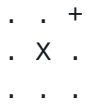
D)

Q9

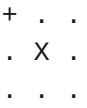
Both figures move by their own consistent rule. Which matrix comes next?



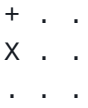
A)



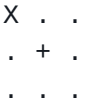
B)



C)

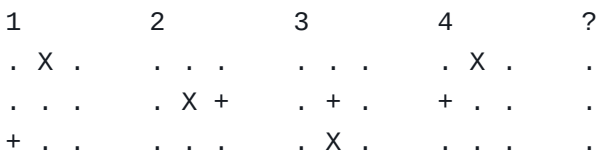


D)

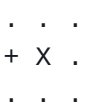


Q10

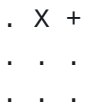
Both figures move by their own consistent rule. Which matrix comes next?



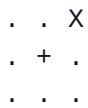
A)



B)



C)



D)

CORE MODULE 2 - MATHEMATICAL EQUATIONS

Q11

Each letter stands for a whole number. What is the value of C?

```
A + B  =  9
B + C  =  11
A + C  =  10
```

A) 6
B) 7
C) 5
D) 8

Q12

Each letter stands for a whole number. What is the value of B?

```
A + B  =  11
B + C  =  13
A + C  =  8
```

A) 7
B) 8
C) 10
D) 6

Q13

Each letter stands for a whole number. What is the value of A?

```
A + B  =  9
B + C  =  11
A + C  =  16
```

A) 9
B) 8
C) 7
D) 4

Q14

Each letter stands for a whole number. What is the value of C?

```
A + B  =  12
B + C  =  9
A + C  =  9
```

A) 1
B) 6
C) 4
D) 3

Q15

Each letter stands for a whole number. What is the value of B?

```
A + B  =  13
B + C  =  15
A + C  =  6
```

A) 11
B) 12
C) 10
D) 13

Q16

Each letter stands for a whole number. What is the value of A?

```
A + B  =  10
B + C  =  9
A + C  =  17
```

A) 11
B) 10
C) 9
D) 6

Q17

Each letter stands for a whole number. What is the value of C?

```
A + B  =  12
B + C  =  19
A + C  =  17
```

A) 11
B) 12
C) 14
D) 10

Q18

Each letter stands for a whole number. What is the value of B?

```
A + B  =  13
B + C  =  9
A + C  =  16
```

A) 1
B) 6
C) 4
D) 3

Q19

Each letter stands for a whole number. What is the value of A?

```
A + B  =  13
B + C  =  11
A + C  =  6
```

A) 4
B) 5
C) 3
D) 6

Q20

Each letter stands for a whole number. What is the value of C?

```
A + B  =  16
B + C  =  13
A + C  =  13
```

A) 7
B) 6
C) 5
D) 2

CORE MODULE 3 - LATIN SQUARES

Q21

Each letter A-E appears exactly once in every row and every column. Which letter belongs in the cell marked x?

A	B	C	D	E
B	C	D	E	A
C	x	E	A	B
D	E	A	B	C
E	A	B	C	D

A) D
B) A
C) B
D) C

Q22

Each letter A-E appears exactly once in every row and every column. Which letter belongs in the cell marked x?

A	B	C	D	E
C	D	E	x	B
E	A	B	C	D
B	C	D	E	A
D	E	A	B	C

A) B
B) A
C) C
D) D

Q23

Each letter A-E appears exactly once in every row and every column. Which letter belongs in the cell marked x?

D	E	x	B	C
E	A	B	C	D
A	B	C	D	E
B	C	D	E	A
C	D	E	A	B

A) B
B) C
C) A
D) D

Q24

Each letter A-E appears exactly once in every row and every column. Which letter belongs in the cell marked x?

B	C	D	E	A
D	E	A	B	C
A	B	C	D	E
E	A	B	C	D
x	D	E	A	B

A) A
B) B
C) D
D) C

Q25

Each letter A-E appears exactly once in every row and every column. Which letter belongs in the cell marked x?

```
C  D  E  A  B
A  B  C  D  E
D  E  A  B  C
B  C  D  E  x
E  A  B  C  D
```

A) A
B) B
C) C
D) D

Q26

Each letter A-E appears exactly once in every row and every column. Which letter belongs in the cell marked x?

```
E  A  B  C  D
D  E  A  B  C
C  D  x  A  B
B  C  D  E  A
A  B  C  D  E
```

A) A
B) E
C) B
D) C

GENERAL ACADEMIC MODULE

Q27

A laboratory records the yield of a reaction at four temperatures. Which statement does the data best support?

Temperature	Yield
30 °C	41 %
40 °C	58 %
50 °C	66 %
60 °C	64 %

A) Yield rises without limit as temperature increases
B) Yield peaks somewhere between 50 °C and 60 °C
C) Yield is directly proportional to temperature
D) Yield is unaffected by temperature

Q28

A department finds that students who attended an optional weekly tutorial scored on average 12 marks higher in the final exam, and concludes the tutorial raises marks. Which finding would most weaken that conclusion?

A) Students who chose to attend already had higher marks in the previous year
B) The tutorial was taught by the same lecturer as the course
C) Both groups sat the identical final exam
D) Attendance was recorded electronically

Q29

A passage states: “In the sample studied, cities that expanded their tram networks after 2010 saw car use fall, though the decline was smaller in cities where parking remained cheap.” Which option best matches the passage?

A) Expanding a tram network always reduces car use
B) Cheap parking prevents any decline in car use
C) Car use fell in the sampled cities that expanded trams, by less where parking stayed cheap
D) Cities should raise parking charges before expanding tram networks

Q30

A university reports applications and offers for four years. Which statement is best supported?

Year	Applications	Offers
2022	4,200	1,050
2023	4,900	1,120
2024	6,100	1,180
2025	7,400	1,210

A) The number of offers fell over the period
B) The proportion of applicants receiving an offer fell over the period
C) The university became less popular over the period
D) Applications and offers rose at the same rate

Part 2

Answers and worked solutions.

CORE MODULE 1 - FIGURE SEQUENCES

Q1 Answer: A

Number the cells 1-9, left to right and top to bottom. The shaded cell sits at 1, then 2, then 3, then 4 — it advances 1 position each step, wrapping back to cell 1 after cell 9. The next position is 5. Turning the movement into arithmetic is far faster than comparing the pictures, and it is the only way to get the wrap right under time pressure.

Q2 Answer: B

Number the cells 1-9, left to right and top to bottom. The shaded cell sits at 2, then 4, then 6, then 8 — it advances 2 positions each step, wrapping back to cell 1 after cell 9. The next position is 1. Turning the movement into arithmetic is far faster than comparing the pictures, and it is the only way to get the wrap right under time pressure.

Q3 Answer: C

Number the cells 1-9, left to right and top to bottom. The shaded cell sits at 9, then 1, then 2, then 3 — it advances 1 position each step, wrapping back to cell 1 after cell 9. The next position is 4. Turning the movement into arithmetic is far faster than comparing the pictures, and it is the only way to get the wrap right under time pressure.

Q4 Answer: D

Number the cells 1-9, left to right and top to bottom. The shaded cell sits at 1, then 4, then 7, then 1 — it advances 3 positions each step, wrapping back to cell 1 after cell 9. The next position is 4. Turning the movement into arithmetic is far faster than comparing the pictures, and it is the only way to get the wrap right under time pressure.

Q5 Answer: A

Number the cells 1-9, left to right and top to bottom. The shaded cell sits at 4, then 6, then 8, then 1 — it advances 2 positions each step, wrapping back to cell 1 after cell 9. The next position is 3. Turning the movement into arithmetic is far faster than comparing the pictures, and it is the only way to get the wrap right under time pressure.

Q6 **Answer: C**

Number the cells 1-9, left to right and top to bottom. The shaded cell sits at 7, then 2, then 6, then 1 — it advances 4 positions each step, wrapping back to cell 1 after cell 9. The next position is 5. Turning the movement into arithmetic is far faster than comparing the pictures, and it is the only way to get the wrap right under time pressure.

Q7 **Answer: B**

Number the cells 1-9, left to right and top to bottom. The shaded cell sits at 3, then 8, then 4, then 9 — it advances 5 positions each step, wrapping back to cell 1 after cell 9. The next position is 5. Turning the movement into arithmetic is far faster than comparing the pictures, and it is the only way to get the wrap right under time pressure.

Q8 **Answer: D**

Number the cells 1-9, left to right and top to bottom. The shaded cell sits at 6, then 4, then 2, then 9 — it advances 7 positions each step, wrapping back to cell 1 after cell 9. The next position is 7. Turning the movement into arithmetic is far faster than comparing the pictures, and it is the only way to get the wrap right under time pressure.

Q9 **Answer: B**

Track the two markers separately. X runs 1 -> 2 -> 3 -> 4, advancing 1 each step, so it lands on 5. + runs 9 -> 7 -> 5 -> 3, moving 2 backwards each step, so it lands on 1. Items with two figures are where most marks go: find one rule, and it is tempting to apply it to both.

Q10 **Answer: D**

Track the two markers separately. X runs 2 -> 5 -> 8 -> 2, advancing 3 each step, so it lands on 5. + runs 7 -> 6 -> 5 -> 4, moving 1 backwards each step, so it lands on 3. Items with two figures are where most marks go: find one rule, and it is tempting to apply it to both.

CORE MODULE 2 - MATHEMATICAL EQUATIONS

Q11 **Answer: A**

Add all three equations: each letter appears twice, so 2(A + B + C) = 30, giving A + B + C = 15. Subtract the equation that does not contain C to get C = 6 in one step. Checking: A = 4, B = 5, C = 6, which satisfies every line. No calculator is allowed, so the marks here go to whoever spots the shortcut rather than substituting step by step.

Q12 **Answer: B**

Add all three equations: each letter appears twice, so 2(A + B + C) = 32, giving A + B + C = 16. Subtract the equation that does not contain B to get B = 8 in one step. Checking: A = 3, B = 8, C = 5, which satisfies every line. No calculator is allowed, so the marks here go to whoever spots the shortcut rather than substituting step by step.

Q13 **Answer: C**

Add all three equations: each letter appears twice, so 2(A + B + C) = 36, giving A + B + C = 18. Subtract the equation that does not contain A to get A = 7 in one step. Checking: A = 7, B = 2, C = 9, which satisfies every line. No calculator is allowed, so the marks here go to whoever spots the shortcut rather than substituting step by step.

Q14 **Answer: D**

Add all three equations: each letter appears twice, so 2(A + B + C) = 30, giving A + B + C = 15. Subtract the equation that does not contain C to get C = 3 in one step. Checking: A = 6, B = 6, C = 3, which satisfies every line. No calculator is allowed, so the marks here go to whoever spots the shortcut rather than substituting step by step.

Q15 **Answer: A**

Add all three equations: each letter appears twice, so 2(A + B + C) = 34, giving A + B + C = 17. Subtract the equation that does not contain B to get B = 11 in one step. Checking: A = 2, B = 11, C = 4, which satisfies every line. No calculator is allowed, so the marks here go to whoever spots the shortcut rather than substituting step by step.

Q16 **Answer: C**

Add all three equations: each letter appears twice, so 2(A + B + C) = 36, giving A + B + C = 18. Subtract the equation that does not contain A to get A = 9 in one step. Checking: A = 9, B = 1, C = 8, which satisfies every line. No calculator is allowed, so the marks here go to whoever spots the shortcut rather than substituting step by step.

Q17 **Answer: B**

Add all three equations: each letter appears twice, so 2(A + B + C) = 48, giving A + B + C = 24. Subtract the equation that does not contain C to get C = 12 in one step. Checking: A = 5, B = 7, C = 12, which satisfies every line. No calculator is allowed, so the marks here go to whoever spots the shortcut rather than substituting step by step.

Q18 Answer: D

Add all three equations: each letter appears twice, so 2(A + B + C) = 38, giving A + B + C = 19. Subtract the equation that does not contain B to get B = 3 in one step. Checking: A = 10, B = 3, C = 6, which satisfies every line. No calculator is allowed, so the marks here go to whoever spots the shortcut rather than substituting step by step.

Q19 Answer: A

Add all three equations: each letter appears twice, so 2(A + B + C) = 30, giving A + B + C = 15. Subtract the equation that does not contain A to get A = 4 in one step. Checking: A = 4, B = 9, C = 2, which satisfies every line. No calculator is allowed, so the marks here go to whoever spots the shortcut rather than substituting step by step.

Q20 Answer: C

Add all three equations: each letter appears twice, so 2(A + B + C) = 42, giving A + B + C = 21. Subtract the equation that does not contain C to get C = 5 in one step. Checking: A = 8, B = 8, C = 5, which satisfies every line. No calculator is allowed, so the marks here go to whoever spots the shortcut rather than substituting step by step.

CORE MODULE 3 - LATIN SQUARES

Q21 Answer: A

Read row 3: it already holds C, E, A, B, so the missing letter is D. Confirm down column 2: B, C, E, A — also missing D. Checking one line is usually enough to answer; checking the second costs a couple of seconds and is the cheapest way to catch a misread, which is what most lost marks here actually are.

Q22 Answer: B

Read row 2: it already holds C, D, E, B, so the missing letter is A. Confirm down column 4: D, C, E, B — also missing A. Checking one line is usually enough to answer; checking the second costs a couple of seconds and is the cheapest way to catch a misread, which is what most lost marks here actually are.

Q23 Answer: C

Read row 1: it already holds D, E, B, C, so the missing letter is A. Confirm down column 3: B, C, D, E — also missing A. Checking one line is usually enough to answer; checking the second costs a couple of seconds and is the cheapest way to catch a misread, which is what most lost marks here actually are.

Q24 Answer: D

Read row 5: it already holds D, E, A, B, so the missing letter is C. Confirm down column 1: B, D, A, E — also missing C. Checking one line is usually enough to answer; checking the second costs a couple of seconds and is the cheapest way to catch a misread, which is what most lost marks here actually are.

Q25 Answer: A

Read row 4: it already holds B, C, D, E, so the missing letter is A. Confirm down column 5: B, E, C, D — also missing A. Checking one line is usually enough to answer; checking the second costs a couple of seconds and is the cheapest way to catch a misread, which is what most lost marks here actually are.

Q26 Answer: B

Read row 3: it already holds C, D, A, B, so the missing letter is E. Confirm down column 3: B, A, D, C — also missing E. Checking one line is usually enough to answer; checking the second costs a couple of seconds and is the cheapest way to catch a misread, which is what most lost marks here actually are.

GENERAL ACADEMIC MODULE

Q27 Answer: B

Yield climbs from 30 °C to 50 °C and then falls by 60 °C, so it must turn over between those last two readings — that is the only claim the four numbers force. It cannot rise without limit, because it already stopped rising. It is not proportional: the steps are 17, 8 and -2, nowhere near constant. And it plainly is affected by temperature. The module rewards saying exactly what the data shows and no more.

Q28 Answer: A

If the attendees were already stronger, the 12-mark gap may reflect who chose to attend rather than any effect of the tutorial — the two groups were not comparable before the tutorial happened, which is exactly what a causal claim needs them to be. The other three describe how the study was set up without touching that step: the same lecturer, an identical exam and electronic registers are all consistent with the tutorial working perfectly.

Q29 Answer: C

Option C is the passage with nothing added or removed — including “in the sample”, which the passage says and the others drop. A overshoots on two words: “always”, and the loss of the sample restriction. B contradicts the passage, which says the decline was smaller, not absent. D is a recommendation; the passage describes what happened and advises nothing. The whole item turns on quantifiers, which is where most marks in this question type are lost.

Q30 **Answer: B**

Offers rose every year, so A is false on its face. But applications rose far faster — 25% of applicants got an offer in 2022 against about 16% in 2025 — so the proportion fell, which is B. C reverses what the applications column shows. D is the trap for anyone who notices both columns rise without checking by how much: applications grew about 76%, offers about 15%. Two columns moving the same direction is not two columns moving at the same rate.