



ALL ODISHA MATH PYQ

E-Book (PDF)

All Odisha Exam Previous Year Chapter Wise MATH Question & Explanation

(ODIA & ENGLISH Language)

[Exam- OSSSC, OSSC, OPSC, Police SI / Constable, Battalion, Fireman, Jail Warder, B.ED, RHT, CT, JT, OSSTET, OAVS, OSSSC (PEO, RI, ARI, JA, LSI, OFDC, Group C)]

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Features Of "MATH" Chapter Wise E-Book

Total PYQ	7,703
Total Topic	43 (With Explanation & Answer Key)
Language	Odia & English
Best For	All Odisha Exam- OSSSC, OSSC, OPSC, Police SI / Constable, OSAP IRB, Fireman, Jail Warder, B.ED, RHT, CT, JT, OSSTET, OAVS, OSSSC (PEO, RI, ARI, JA, LSI, OFDC, Group C) & Other Exams
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	At the state of th	
SI. No.	Topic	No. Of MCQ
1	Average	450
2	Percentage	479
3	Partnership	137
4	Mixture & Allegation	205
5	Ratio & Proportion	367
6	Time & Work	427
7	Compound Interest	196
8	Profit & Loss	373
9	Simple Interest	241
10	Speed, Time & Distance	356
11	Simplification	528
12	Data Interpretation	610
13	Problems on Trains	55
14	Boat & Stream	45
15	Тах	55
16	Decimal & Fractions	61
17	Pipes and Cisterns	60
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19	Age Problem	179
20	Divisibility	233
	Teaching Exam PYQ	
21	Geometry	165















22	Mensuration	424
23	Logarithm	23
24	Probability	306
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26	Algebra , Polynomial & Quadratic	347
27	Relations & Functions	39
28	Square & Cube Root	121
29	Number System	216
30	Miscellaneous	68
31	Permutation & Combination	20
32	Sets & Union	89
33	Trigonometry	75
34	Hight & Distance	11
35	HCF & LCM	226
36	Analytical Geometry	38
37	Arithmetic Problem PYQ	39
38	Calculus	13
39	Coordinate Geometry	37
40	Differentiation & Integration	14
41	Limits & Continuity	9
42	Sequences and Series	18
43	Math Pedagogy	28
Total		7,703











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All These Shifts Have Been Updated To The E-Book

OSSSC Previous Year Questions (PYQ)		
SI. No.	Exam Name	Year
1	OSSSC LSI, FG, FORESTER	2024 (All 42 Shifts)
2	OSSSC RI	2021, 2015
3	OSSSC PEO & JA	2023
4	OSSSC CRE (ARI, AMIN, SFS, FG, EXCISE CONSTABLE)	2022
5	OSSSC JUNIOR CLERK	2018, 2017, 2015
6	OSSSC LSI	2021
7	OSSSC ICDS Supervisor	2016
8	OSSSC Excise Constable	2019, 2014
9	OSSSC VAW	2016
10	OSSSC Jr. Stenographer	2015
11	OSSSC Laboratory Technician	2021
12	OSSSC MPHW	2024, 2023
13	OSSSC Nursing	2023, 2020
14	OSSSC SFS	2016
15	OSSSC Pharmacist	2024, 2020
16	OSSSC Radiographer	2020













OSSC Previous	Year	Questions	(PYQ)

SI. No.	Exam Name	Year
1	OSSC ATO	2024
2	OSSC CHSL Specialist	2024
3	OSSC Assistant Sub-Inspector	2022
4	OSSC Accountant	2022
5	OSSC AMIN	2023
6	OSSC BSSO	2022 (All 18 Shifts)
7	OSSC CGL	2024, 2023, 2022 (All 18
		Shifts)
8	OSSC CGL Specialist	2024, 2023
9	OSSC CHSL (Amin, Ayush, SCEW, JFTA)	2024, 2023
10	OSSC CPGL	2023
11	OSSC CTS	2024, 2023
12	OSSC ESI	2023
13	OSSC GPEO	2015
14	OSSC Investigator	2022 (All 3 Shifts)
15	OSSC WEO	2022
16	OSSC JEA	2022 (All 16 Shifts)
17	OSSC Junior Assistant	2022 (All 10 Shifts)
18	OSSC Junior Clerk	2022
19	OSSC SCEW	2022 (All 5 Shifts)













20	OSSC SFS	2016
21	OSSC Stenographer	2024, 2023
22	OSSC Supply Inspector	2017
23	OSSC WEO	2022 (All 21 Shifts)
24	OSSC Statistical Assistant	2024

	Odisha Police & Defence Previous Year Questions (PYQ)		
SI. No.	Exam Name	Year	
1	Battalion / OSAP IRB	2018, 2017	
2	Odisha Police Constable	2023, 2018, 2013, 2012, 2011	
3	Odisha Fireman	2023	
4	Odisha Jail Warder	2022 (All 18 Shifts)	
5	OPRB SI Police	2023, 2022 (All 11 Shifts), 2019, 2017, 2016	
6	OSSC Excise SI	2024 (All 10 Shifts), 2022, 2021 (All 9 Shifts)	
7	OSSC Traffic Constable	2024, 2022 (All 6 Shifts)	
8	OSSC Traffic SI	2022 (All 4 Shifts)	

OPSC Previous Year Questions (PYQ)		
SI. No.	Exam Name	Year
1	OPSC Jr. Assistant	2024
2	OPSC ASO	2022, 2019, 2015, 2014
3	OPSC OMAS	2023, 2019













4	OPSC OAS	Only Odisha GK Taken From All Previous Year Preliminary Exams
5	OPSC Assistant Director Of Factory & Boiler	2023 Pre (Only Odisha GK)
	OPSC Assistant Director Handicraft	2024 (Math & Reasoning)
6	OPSC Asst Director Handicraft	2023 Pre (Only Odisha GK)

Odisha High Court Previous Year Questions (PYQ)		
SI. No.	Exam Name	Year
1	OHC ASO	2023, 2023 (ST Special), 2021,

Odisha Forest Development Corporation Previous Year Questions (PYQ)		
SI. No.	Exam Name	Year
1	OFDC Field Assistant	2021

Odisha Teaching Exams Previous Year Questions (PYQ)			
SI. No.	Exam Name	Year	
1	СТ	2023 (All 11 Shifts), 2020 (All 20 Shifts), 2019 (All 24 Shifts), 2018 (All 23 Shifts)	
2	OTET (P-I,P-II)	2024, 2022	
3	JT	2023 (All 14 Shifts)	
4	B.ED Entrance Exam (ARTS & SCIENCE)	2024, 2023, 2022, 2021 (All 15 Shifts), 2020 (All 13 Shifts), 2019 (All 15 Shifts), 2018 (All 11 Shifts)	
6	OSSTET (ARTS, CBZ & PCM)	2024, 2022, 2021 (2 nd), 2021 (1 st), 2019, 2018	
7	SSB (ARTS, CBZ & PCM)	2024	













8	RHT / High School	
	Teacher	
	DUT ADTO	0000 D (All 0 Ol '(i) 0 M ; 0000 (All 0 Ol '(i)
	> RHT ARTS	2023 Pre (All 3 Shifts) & Mains, 2022 (All 6 Shifts),
		2021 (All 3 Shifts), 2019
	> RHT CBZ	2023 Pre (All 3 Shifts) & Mains, 2022 (All 3 Shifts),
		2021, 2019
		,
	> RHT PCM	2023 Pre (All 3 Shifts) & Mains, 2022 (All 4 Shifts),
		2021 (All 2 Shifts), 2019 (All 2 Shifts)
0	OAVS	
9	UAVS	
	OAVS TGT ODIA	2021, 2019, 2018
	OAVS TGT	2019
	ENGLISH	
	OAVS TGT SOCIAL	2023, 2021, 2019
	STUDIES	2025, 2021, 2019
	STODIES	
	OAVS TGT	2019, 2021
	SCIENCE	
	OAVS TGT MATH	2023, 2019













Topic Name- Percentage

1- What percent of 1692 is 423?

1692 ର କେତେ ଶତକଡା 423 ଅଟେ?

[OSSC RHT High School Teacher 2023]

- (A) 35
- (B) 20
- (C)30
- (D) 25

Ans-D

Formula:

$$\rightarrow$$
 Percentage = $\frac{Part}{Whole} \times 100$

Solution:

$$\rightarrow \frac{423}{1692} \times 100 = 25\%$$

Final Conclusion:

 \rightarrow 423 is **25%** of 1692.











- 2- My income is Rs 1200 per month. If I save 20% of it every month, how much I shall save in a year?
- ମୋର ରୋଜଗାର ମାସିକ ୧୨୦୦ ଟଙ୍କା । ଯଦି ମୁଁ ପ୍ରତି ମାସରେ ଏହାର ୨୦% ସଞ୍ଚୟ କରେ, ତେବେ ମୁଁ ବର୍ଷକୁ କେତେ ସଞ୍ଚୟ କରିବି?

[Odisha Jail Warder 2022]

- A. Rs 240
- B. Rs 2880
- C. Rs 1440
- D. Rs 120

Ans-B

Given:

- → Monthly income = ₹1200
- → Savings = 20%

Formula:

- → Savings per month = $1200 \times \frac{20}{100} = ₹240$
- → Annual savings = ₹240 x 12

Solution:

→ Annual savings = ₹2880

Final Conclusion:

→ The amount saved in a year is **₹2880**.











- 3- If the given two numbers are respectively 6% and 24% of a third number, then what percentage is the first number of the second number
- ଯଦି ଦିଆଯାଇଥିବା ଦୁଇଟି ସଂଖ୍ୟା ତୃତୀୟ ସଂଖ୍ୟାର ଯଥାକ୍ରମେ 6% ଏବଂ 24% ଅଟେ, ତେବେ ଦ୍ବିତୀୟ ସଂଖ୍ୟାର ପ୍ରଥମ ସଂଖ୍ୟା କେତେ ପ୍ରତିଶତ ଅଟେ

[OSSSC Livestock Inspector 2021]

- (A) 15%
- (B) 20%
- (C) 25%
- (D) None of these

Ans- C

Given:

→ Two numbers are 6% and 24% of a third number.

Formula:

- \rightarrow First number $A = 6\% \times$ Third Number
- \rightarrow Second number $B = 24\% \times \text{Third Number}$
- \rightarrow The required percentage = $\frac{A}{B} \times 100$

Solution:

- \rightarrow First number $A = 0.06 \times$ Third Number
- \rightarrow Second number $B = 0.24 \times$ Third Number

$$\rightarrow \frac{A}{B} \times 100 = \frac{0.06}{0.24} \times 100 = 25\%$$









- 4- If a number is increased by 25% and then decreased by 25%, find out the percentage of increase/decrease of final value of the number.
- ଯଦି କୌଣସି ସଂଖ୍ୟା 25% ବୃଦ୍ଧି କରାଯାଏ ଏବଂ ପରେ 25% ହ୍ରାସ କରାଯାଏ, ତେବେ ସଂଖ୍ୟାର ଚୂଡ଼ାନ୍ତ ମୂଲ୍ୟର ବୃଦ୍ଧି/ହ୍ରାସର ପ୍ରତିଶତ ଜାଣନ୍ତୁ।

[OSSSC RI Exam 2021]

- (A) Increase by 6.25 %
- (B) Decrease by 6.25%
- (C) Increase by 9.25 %
- (D) Decrease by 9.25%

Ans-B

Given:

- \rightarrow Initial percentage increase: A = +25%
- \rightarrow Percentage decrease: B = -25%

Formula:

 \rightarrow Net percentage change = $A + B + \frac{AB}{100}$

Solution:

- \rightarrow Net percentage change = $25 + (-25) + \frac{(25)\times(-25)}{100}$
- \rightarrow Net percentage change = $0 + \frac{-625}{100}$
- \rightarrow Net percentage change = -6.25%

Final Result:

→ The final value of the number decreases by 6.25%.











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5- In an examination, there were 600 boys and 400 girls. 60% of boys and 50% of girls passed. The percentage of candidates that failed is:

- ଗୋଟିଏ ପରୀକ୍ଷାରେ ୬୦୦ ବାଳକ ଓ ୪୦୦ ଝିଅ ଥିଲେ। ୬୦% ପୁଅ ଓ ୫୦% ଝିଅ ପାସ୍ କରିଛନ୍ତି। ଫେଲ୍ ହୋଇଥିବା ପ୍ରାର୍ଥୀଙ୍କ ପ୍ରତିଶତ ହେଉଛି:

[OSSSC Combined Recruitment 2022]

- (A) 50%
- (B) 55%
- (C) 40%
- (D) 44%

Ans-D

Given:

- \rightarrow Total boys = 600
- → Total girls = 400
- \rightarrow 60% of boys passed
- $\rightarrow 50\%$ of girls passed

Calculation:

- \rightarrow Boys who passed = $600 \times \frac{60}{100} = 360$
- \rightarrow Boys who failed = 600 360 = 240
- \rightarrow Girls who passed = $400 \times \frac{50}{100} = 200$
- \rightarrow Girls who failed = 400 200 = 200
- \rightarrow Total candidates = 600 + 400 = 1000
- \rightarrow Total failed = 240 + 200 = 440
- \rightarrow Percentage failed = $\frac{440}{1000} \times 100 = 44\%$











6- 2600 candidates appeared for an examination, of which 2184 passed. Find the pass percentage.

୨୬୦୦ ପରୀକ୍ଷାର୍ଥୀ ପରୀକ୍ଷା ଦେଇଥିବା ବେଳେ ସେମାନଙ୍କ ମଧ୍ୟରୁ ୨୧୮୪ ଜଣ ପାସ୍ କରିଛନ୍ତି। ପାସ୍ ପ୍ରତିଶତ ନିର୍ଦ୍ଧାରଣ କରନ୍ତ।

[Odisha Police ASI 2022]

- (A) 92%
- (B) 80%
- (C) 84%
- (D) 88%

Ans-C

Given:

- → Total candidates = 2600
- → Passed candidates = 2184

Formula:

$$\rightarrow$$
 Pass percentage = $\frac{\text{Passed Candidates}}{\text{Total Candidates}} \times 100$

Calculation:

$$\rightarrow$$
 Pass percentage = $\frac{2184}{2600} \times 100 = 84\%$

Final Conclusion:

 \rightarrow The pass percentage is **84%**.











7- What percent of 11.4 kg is 3078 gms?

- 11.4 କିଲୋଗ୍ରାମର କେତେ ପ୍ରତିଶତ 3078 ଗ୍ରାମ?

[OSSC Traffic SI 2022 Exam]

- (A) 29
- (B) 23
- (C) 27
- (D) 25

Ans- C

Given:

- \rightarrow Total weight = 11.4 kg = 11,400 grams
- → Part weight = 3078 grams

Formula:

$$\rightarrow$$
 Percentage = $\frac{Part}{Total} \times 100$

Calculation:

→ Percentage =
$$\frac{3078}{11,400} \times 100 = 27\%$$

Final Conclusion:

 \rightarrow 3078 grams is **27%** of 11.4 kg.











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- 8- The salary of X, Y and Z are in the ratio 5:3: 1. The salary of X and Y together is Rs 7200. By what percent is salary of X more than that of Z?
- X, Y ଏବଂ Z ର ଦରମା 5: 3: 1 ଅନୁପାତରେ ଅଛି । X ଏବଂ Y ମିଳିତ ଦରମା ହେଉଛି ୭୨୦୦ ଟଙ୍କା । Z ତୁଳନାରେ X ର ଦରମା କେତେ ପ୍ରତିଶତ ଅଧିକ?

[OSSSC RI Exam 2021]

- (A) 100%
- (B) 200%
- (C) 300%
- (D) 400%

Ans- D

Given:

- \rightarrow The ratio of the salaries of X, Y, and Z is 5:3:1.
- → The sum of X and Y's salaries is ₹7200.

Calculation:

- \rightarrow Let the salaries of X, Y, and Z be 5x, 3x, and x respectively.
- $\rightarrow 5x + 3x = 7200$
- $\rightarrow 8x = 7200$
- $\rightarrow x = 900$
- \rightarrow Salary of X = 5x = 4500
- \rightarrow Salary of Z = x = 900
- \rightarrow Percentage increase of X's salary over Z's salary = $\frac{4500-900}{900}$ ×

$$100 = 400\%$$

Final Conclusion:

 \rightarrow X's salary is **400%** more than Z's.













- 9- Rakesh spends 15% of his monthly income on his household expenditure, 20% on books, 30% on clothes and saves the rest. On counting, he comes to know that he has finally saved Rs.12565. Find his monthly income. (In Rs.)
- ରାକେଶ ତାଙ୍କ ମାସିକ ଆୟର ୧୫% ଘର ଖର୍ଚ୍ଚ, ୨୦% ବହି, ୩୦% ପୋଷାକ ପାଇଁ ଖର୍ଚ୍ଚ କରନ୍ତି ଏବଂ ବାକି ସଞ୍ଚୟ କରନ୍ତି । ଗଣନା କରିବା ପରେ, ସେ ଜାଣିବାକୁ ପାଇଲେ ଯେ ସେ ଶେଷରେ 12565 ଟଙ୍କା ସଞ୍ଚୟ କରିଛନ୍ତି। ତାଙ୍କର ମାସିକ ଆୟ ସନ୍ଧାନ କରନ୍ତ । (ଟଙ୍କାରେ)

[OSSC CGL Exam 2022]

- (A) 35900
- (B) 36900
- (C) 37900
- (D) 34900

Ans- A

Given:

- → Savings = ₹12,565
- \rightarrow He spends 15% on household, 20% on books, and 30% on clothes.
- \rightarrow Total spending = 15% + 20% + 30% = 65%
- \rightarrow Savings = 100% 65% = 35%

Formula:

- → Savings = 35% of monthly income
- \rightarrow Monthly income = $\frac{\text{Savings} \times 100}{35}$

Calculation:

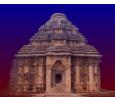
→ Monthly income = $\frac{12,565 \times 100}{35}$ = 35,900

Final Conclusion:

→ Rakesh's monthly income is **₹35,900**.











10- After 5060 liters of petrol were poured into the tank, it was still 12% empty. What is the total capacity of the tank? (In liters)

- ଟାଙ୍କିରେ ୫୦୬୦ ଲିଟର ପେଟ୍ରୋଲ ଢାଳିବା ପରେ ମଧ୍ୟ ତାହା ୧୨ ପ୍ରତିଶତ ଖାଲି ରହିଥିଲା । ଟାଙ୍କିର ସମୁଦାୟ କ୍ଷମତା କେତେ? (ଲିଟରରେ)

[OSSC Excise SI 2021]

- (A) 5750
- (B) 5550
- (C) 5450
- (D) 5650

Ans- A

Given:

- \rightarrow 5,060 liters poured.
- \rightarrow 12% of the tank is still empty.

Formula:

$$\rightarrow$$
 Total capacity = $\frac{\text{Amount poured}}{1-\text{Percentage empty}}$

Solution:

$$\rightarrow$$
 Total capacity = $\frac{5,060}{1-0.12} = \frac{5,060}{0.88} = 5,750$

Final Conclusion:

→ The total capacity of the tank is **5,750 liters**.











11- If 25% of a certain number is 1875, then what is 80% of that number?

ଯଦି ଏକ ନିର୍ଦ୍ଦିଷ୍ଟ ସଂଖ୍ୟାର ୨୫% ୧୮୭୫, ତେବେ ସେହି ସଂଖ୍ୟାର ୮୦% କେତେ?

[OSSC SCEW 2022]

- (A) 6000
- (B) 6200
- (C) 6100
- (D) 6300

Ans- A

Given:

- \rightarrow 25% of a certain number is 1875.
- \rightarrow Find 80% of that number.

Solution:

- \rightarrow Let the number be N.
- \rightarrow According to the question:

$$0.25N = 1875$$

 \rightarrow Solving for N:

$$N = \frac{1875}{0.25} = 7500$$

 \rightarrow Now, 80% of *N* is:

$$0.80 \times 7500 = 6000$$









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12. Ram secures 50% and Shyam secures 30% of the total marks in an examination. If the difference between the marks secured by both of them is 40, what is the total marks?

ରାମ ଏକ ପରୀକ୍ଷାରେ ମୋଟ ମାର୍କର ୫୦% ଏବଂ ଶ୍ୟାମ ୩୦% ମାର୍କ ହାସଲ କରନ୍ତି । ଯଦି ଦୁହେଁ ହାସଲ କରିଥିବା ମାର୍କ ମଧ୍ୟରେ ପାର୍ଥକ୍ୟ ୪୦, ତେବେ ସମୁଦାୟ ମାର୍କ କେତେ ?

[Odisha District Police Constable 2013]

- (A) 100
- (B) 500
- (C)300
- (D) 200

Ans- D

Given:

- → Ram's percentage = 50%
- → Shyam's percentage = 30%
- → Difference in marks = 40

Formula:

- \rightarrow Difference in marks = 50% 30% = 20%
- \rightarrow Total marks = $\frac{\text{Difference in marks}}{20\%}$

Solution:

$$\rightarrow$$
 Total marks = $\frac{40}{0.20}$ = 200

Final Conclusion:

 \rightarrow The total marks are **200**.

To Continue- Click Here







