



JKP Constable Math Classes

25 + 15% of 200 = ?
= 25 + 30
= 55

25
85 - 250

PERCENTAGE

CLASS 03

PASS, FAIL CONCEPT

$P = (100 + R)\%$
 $A = P \left(1 + \frac{R}{100}\right)^n$
 $R = \frac{\text{Gain}}{P} \times 100$



1234567890

MC MR M- % MU
x% 7 8 9 +
÷% 4 5 6 -
AC 1 2 3 =
C 0 .00 -

%

CLASS 03

PASS, FAIL CONCEPT

$\% = \frac{\text{Part}}{\text{Whole}} \times 100$
 $\text{Profit}\% = \frac{\text{Profit}}{\text{CP}} \times 100$
 $\text{Loss}\% = \frac{\text{Loss}}{\text{CP}} \times 100$

Important Formulas

Concept Based

Practice Questions

Smart Approach

PASS
SCORE 45 / 60

FAIL
SCORE 25 / 60

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Math • Reasoning • English • GK • Computer – All Classes

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TEST

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JKP CONSTABLE SYLLABUS

- Number System
- ✓ Percentage ✓
- Ratio and Proportion
- Profit and Loss
- Average
- Time, Speed and Distance
- Algebra
- Mensuration
- Simple and Compound Interest
- Trigonometry
- Simplification
- Mathematical Reasoning



JKP CONSTABLE PREVIOUS YEAR ANALYSIS

- Number System **02**
- Percentage **03**
- Ratio and Proportion **02**
- Profit and Loss **01**
- Average
- Time, Speed and Distance
- Algebra
- Mensuration
- Simple & Compound Interest
- Trigonometry
- Simplification
- Mathematical Reasoning **03**



JKP Constable Math classes By JK Study: Class 03

Chapter :1

Theory and Basic

Percentage means $\frac{1}{100}$

Ex: 25% of 80



Ex: 40% of 200

Percentage Question Types

✓ 1. Basic.

✓ 2. Language.

③ 3. Pass, Fail

4. Population

5. Election

Some important percentage basic conversion

1. $100\% = 1$

6. $66.66\% = 1/6$

2. $50\% = 1/2$

7. $14.28\% = 1/7$

3. $33.33\% = 1/3$

8. $12.5\% = 1/8$

4. $25\% = 1/4$

9. $11.11\% = 1/9$

5. $20\% = 1/5$

10. $10\% = 1/10$

Some important percentage basic

11. $9.99\% = 1/11$

12. $8.33\% = 1/12$

13. $7.14 = 1/14$

14. $6.75\% = 1/15$

15. $6.25\% = 1/16$

16. $37.5\% = 3/8$

17. $57.12\% = 4/7$



Type:3 -Pass , Fail

In this type you must remember basic concept

Pass- pass means ~~-~~

Fail – fail means +

Q:1 In an examination, a student who gets 20% of the maximum marks fails by 5 marks. Another student who scores 30% of the maximum marks gets 20 marks more than the pass marks. The necessary percentage required for passing is :

(1) 32%

(2) 23%

✓ (3) 22%

(4) 20%

$$\Rightarrow 20\% + 5, \quad 30\% - 20 = 22\%$$

$$\begin{aligned} 1\% &= 2.5 \times 8 \\ 8\% &= 20 \end{aligned}$$

$$\Rightarrow 20\% + 5 = 30\% - 20$$

$$\Rightarrow 25 = 10\%, \quad 1\% = 2.5 \times 2 = 5$$

$$\Rightarrow \boxed{22\%} \quad 100\% = \boxed{250}$$

$$\boxed{55}$$

Q:2

Q:2 R targets to score 85% marks in exams. He scores 450 marks and misses the target by 35%. How much increment in percentage should be there in his scored marks to meet the target?

✓ (a) 70

(b) 35

(c) 53

(d) 45

$$T = 85\%, \quad 450 + 35\%$$

$$\begin{aligned} 50\% &= 450 \\ 1\% &= \frac{450}{50} = 9 \\ 35\% &= 31.5 \\ 450 + 31.5 &= \boxed{481.5} \end{aligned}$$

$$\begin{array}{r} 85 \\ 9 \\ \hline 765 \end{array}$$

Q:3 For an examination it is required to get 36 % of maximum marks to pass. A student got 113 marks and failed by 85 marks. The maximum marks for the examination are :

(1) 500

(2) 550

(3) 565

(4) 620

$$\begin{aligned} \text{Pass \%} &= 36\% \\ 36\% &= 198 \\ \therefore \frac{198}{36} \times 100 &= \frac{3300}{6} = \boxed{550} \end{aligned}$$

Pyq

Q:4 . There are 160 multiple choice questions in a test. 4 marks are allotted for a correct answer and 1 mark is deducted for a wrong answer or un attempted question from the total score of correct answers. If a candidate scored 400 marks in the test, how many questions did he answer correctly? (a) 120

(b) 115

(c) 112

(d) 110

$$\begin{aligned} \text{T.Q} &= 160 \\ C &= 4, \quad WA = 1, \quad = 400 \\ ? \downarrow \\ \Rightarrow 120 - 40 \\ 480 - 40 &= 440, \\ 2) 115 - 45 \\ 460 - 45 &= 415, \\ 3) 112 - 48 \\ 448 - 48 &= \boxed{400} \end{aligned}$$

Q:5 In an examination, there were 1000 boys and 800 girls. 60% of the boys and 50% of the girls passed. Find the percent of the candidates failed ?

(1) 46.4%

(2) 48.4%

$$\begin{aligned} &\begin{array}{c} B \\ 1000 \\ \begin{array}{cc} P & F \\ 600 & 400 \end{array} \end{array} \quad \begin{array}{c} G \\ 800 \\ \begin{array}{cc} P & F \\ 400 & 400 \end{array} \end{array} \\ \Rightarrow &\frac{800}{1800} \times 100 = 44.4 \end{aligned}$$

(3) 44.4%

(4) 49.6%

Q:6 J1-SSB $P_{gV} = A.C = 202 \text{ CBT}$

If A got 616 marks and B got 462 marks, then what percent of A's marks is B's marks?

(A) ☐ 90

(B) ☐ 85

(C) ☐ 80

(D) ☒ 75 (Correct Answer) (Chosen option)

$$\Rightarrow \frac{N}{100} \times 616 = 462, \quad \frac{462 \times 100}{616} = N$$

$$\Rightarrow \frac{46200}{616} = \boxed{75}$$

Q:7 $P_{gV} = A.C$

If A got 620 marks and B got 465 marks, then what percent of A's marks is B's marks?

(A) ☒ 75 (Correct Answer) (Chosen option)

(B) ☐ 90

(C) ☐ 85

(D) ☐ 80

$$\Rightarrow \frac{N}{100} \times 620 = \frac{465 \times 100}{620} = N$$

$$\Rightarrow \frac{46500}{620} = \boxed{75}$$