15) Total mark ~~secr~~ secured = 125

failed by 15 marks

∴ pass marks = 125 + 15 = 140

Let maximum marks = x

∴ $\frac{x \times 35}{100} = 140$

⇒ $x = \frac{140 \times 100}{35} = 4 \times 100 = 400$

Hence maximum marks = 400

16) Total question = 150

John got connect answers = 80%

Mohan got connect answer = 66%

i) Number of connect answer got by John

$= \frac{80}{100} \times 150 = 120$

Number of correct answer got by Mohan.

$= \frac{64}{100} \times 150 = \frac{64}{4} \times 6 = 96$

ii) % of Mohan's correct answer to John's correct answer.

$\frac{96}{120} \times 100 = \frac{4}{5} \times 100$

$= 4 \times 20 = 80\%$

17) The resulting number = The originally number

$$x\left[1 + \frac{20}{100}\right] \times \left[1 - \frac{20}{100}\right]$$

$$= 8000 \times \frac{130}{100} \times \frac{80}{100} = 7,680$$

16) The resulting number = The original number $\times \left[1 - \frac{25}{100}\right] \times \left[1 + \frac{25}{100}\right]$

$= 12000 \times \frac{75}{100} \times \frac{125}{100} = 11,230$

17) Let the originally cost - ₹100
Increased by 20%

New cost $= 100 + 20 =$ ₹120

Decreased by 30% $= \frac{120 \times 30}{100}$

$=$ ₹36

New cost $= 120 - 36 =$ ₹84

Overall change $= 100 - 84 =$ ₹16

Required percentage $= \frac{16}{100} \times 100$

$=$ 16% decreased.

Let the original cost = ₹100

Decreased by 25 %

New cost = 100 - 25 = ₹75

Decreased by 40% = $\frac{75 \times 40}{100}$ = ₹30

New cost = ₹75 - 30 = ₹45

Overall change = 100 - 45 = ₹55

Required percentage = $\frac{55}{100} \times 100$

= 55% decrease.