

**All Victoria University  
of Bangladesh  
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**Program : BBA**

**Batch : 46th**

**COURSE CODE : MAT 102**

**COURSE TITLE : Basic Algebra**

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Course title: Basic Algebra  
Course code: MAT 102

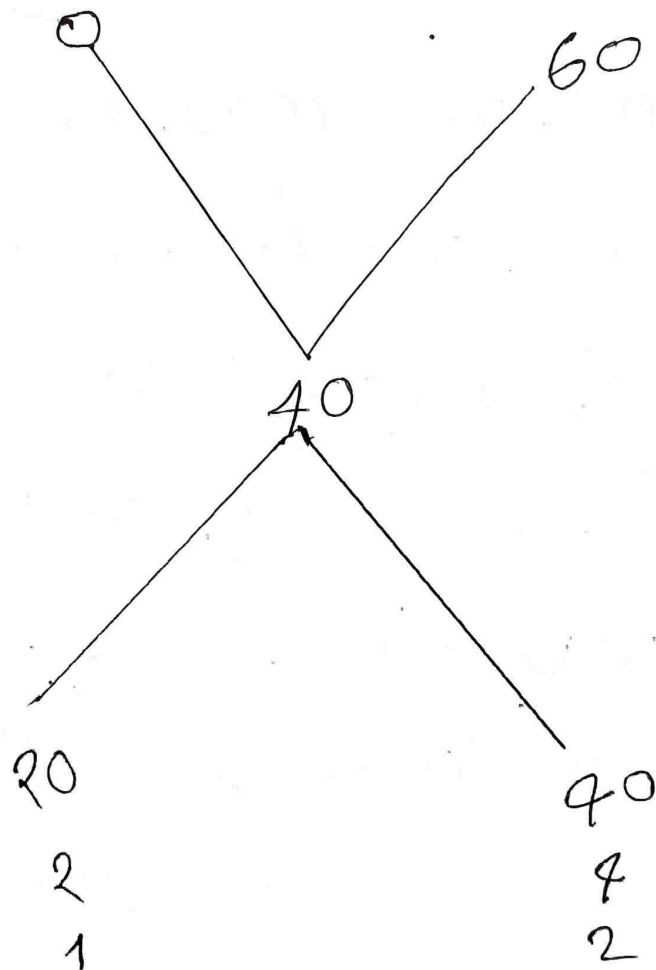
### Ans: to the QN ①

① A whole number greater than 1 that cannot be exactly divided by any number other than itself and 1 (2, 3, 5, 7, 11) prime numbers are very useful in cryptography.

A prime number is a natural number greater than 1 that is not a product of two smaller natural numbers. A natural number greater than 1 that is not prime is called a composite number. For example 5 is prime because the only ways of writing it as a product  $1 \times 5$  or  $5 \times 1$ , involve 5 itself.

Ans: to the Q. no (2)

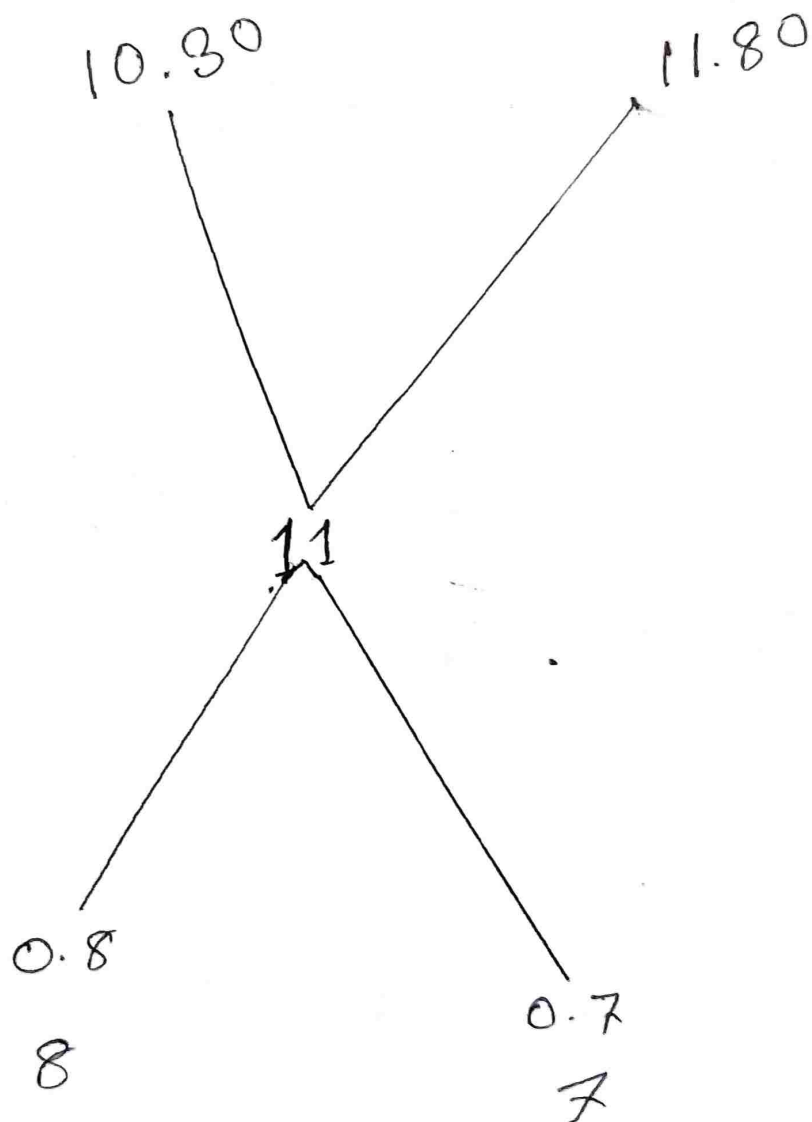
Q In what ratio must mixed pulses with milk costing 60 tk per liter to obtain a mixture worth 40 tk per liter?



Ans: the ratio must a 20000 mix two varieties of pulses is 1:2

Ans: to the Q. No. 2)

Q. In what ratio green beans at \$10.30 per kg mixed with that \$11.80 per kg so that mixture worth \$11 per kg



Ans: The ratio must be 8:7 or 8000:7000

Ans: to the Q. 5

⑤ Distance covered in passing the platform  
 $= (160 + 160)$

⑤ Ans: to the Q. 5

Distance covered in passing the platform  $= (160 + 160)$   
 $= 320 \text{ m}$

time taken  $= 16 \text{ seconds}$

speed of train  $= \frac{320}{16}$

$= 20 \text{ m/sec}$

$= \frac{720}{10} \times \frac{18}{5}$

$= 72 \text{ km/hr.}$

Ans: 72 km/hr.

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Ans: to the Q. N (4)

$$\text{④ Speed of train} = 300 \text{ km/hr} = 250/3 \text{ m/sec}$$

Distance moved in passing the standing man = 1000 m

$$\text{Required time taken} = 1000 / (250/3)$$

$$= (1000 \times 3 / 250) \text{ Sec}$$

$$= \frac{1000 \times 3}{250}$$

$$= 120 \text{ Sec}$$

Ans: Required time taken 120 Sec