

## AFCAT – 1/2020

### DAY – 5

- 1) The average weight of 8 person's increases by 2.5 kg when a new person comes in place of one of them weighing 65 kg. What might be the weight of the new person?
- 80 kg
  - 85 kg
  - 76.5 kg
  - 82 kg
- 2) The average of the first and the second of three numbers is 15 more than the average of the second and the third of these numbers. What is the difference between the first and the third of these three numbers?
- 45
  - 15
  - 60
  - None of these
- 3) Divide Rs. 1870 in three parts such that half of the first part, one – third of second part and one – sixth of the third part are equal.
- 270, 840, 1160
  - 341, 243, 245
  - 400, 800, 670
  - None of these
- 4) Rs 180 are to be divided among 66 persons (men and women). The ratio of the total amount of money received by men and women is 5:4. But the ratio of the money received by each man and woman is 3:2. The number of men is
- 20
  - 24
  - 30
  - 36
- 5) A car left 3 minutes early than the scheduled time and in order reach the destination 126 km away in time, it has to slow its speed by 6 km/hr from his usual. What is the usual speed (in km/hr) of the car?
- 56
  - 63
  - 94.5
  - 126
- 6) If the sum of two numbers is 55 and the HCF and LCM of these numbers are 5 and 120 respectively, then the sum of the reciprocal of the numbers is equal to
- 55/601
  - 601/55
  - 11/120
  - 120/11
- 7) If the speed of a boat in still water is 20 km/hr and the speed of the current is 5 km/hr, then the time taken by the boat to travel 100 km with the current is
- 2 hours
  - 3 hours
  - 4 hours



d) 7 hours

8) 12 pumps working 6 hours a day can empty a completely filled reservoir in 15 days. How many such pumps working 9 hours a day will empty the same reservoir in 12 days?

- a) 15
- b) 9
- c) 10
- d) 12

9) P can do  $\frac{1}{4}$ th of work in 10 days, Q can do 40% of work in 40 days and R can do  $\frac{1}{3}$ rd of work in 13 days. Who will complete the work first?

- a) P
- b) Q
- c) R
- d) Both P and R

10) B borrows Rs 5000 from A at 6% p.a simple interest and lends it to C at compound interest of 10% p.a. If B collects the money back from C after 2 years and repays A, the profit made by B in the transaction is (In Rs)

- a) 1050
- b) 500
- c) 450
- d) 600

11) Name the vitamin that protects us from Pellagra disease?

- a) Vitamin  $B_5$
- b) Vitamin  $B_7$
- c) Vitamin  $B_3$
- d) None of the above

12) The chemical formula of lead sulphate is

- a)  $Pb_2SO_4$
- b)  $Pb(SO_4)_2$
- c)  $PbSO_4$
- d)  $Pb_2(SO_4)_3$

13) The cooking gas mainly (LPG) consists of

- a) Butane
- b) Ethene
- c) Ethyne
- d) Propene

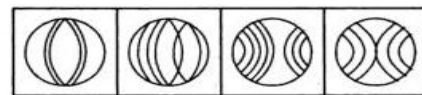
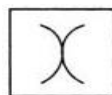
14) To increase the magnifying power of a telescope, the focal length of

- a) Objective lens should be increased
- b) Objective lens should be decreased
- c) Eye – piece lens should be increased
- d) Eye – piece lens should be decreased

15) The focal length of a spherical mirror is approximately equal to

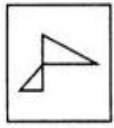
- a) Half the radius of curvature
- b) Four times the radius of curvature
- c) Twice the radius of curvature
- d) Equal to the radius of curvature

From questions 16 – 20, find the figure (x) which is embedded in the four alternatives and select the correct option.

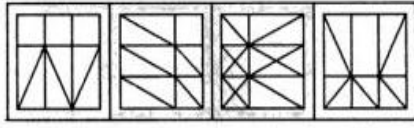


16)

- a) (a)
- b) (b)
- c) (c)
- d) (d)



(X)



(a)

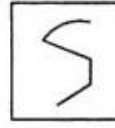
(b)

(c)

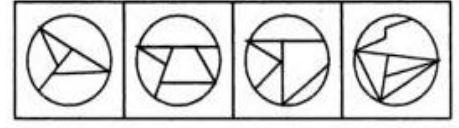
(d)

17)

- a) (a)
- b) (b)
- c) (c)
- d) (d)



(X)



(a)

(b)

(c)

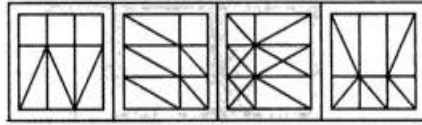
(d)

19)

- a) (a)
- b) (b)
- c) (c)
- d) (d)



(X)



(a)

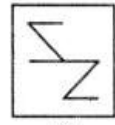
(b)

(c)

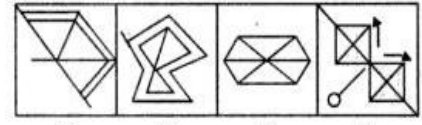
(d)

18)

- a) (a)
- b) (b)
- c) (c)
- d) (d)



(X)



(a)

(b)

(c)

(d)

20)

- a) (a)
- b) (b)
- c) (c)
- d) (d)

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