

Name of the Student:

Roll No:

Department:

Class:

EMPLOYABILITY TEST 3

I. Choose the correct alternative:

1. A man's speed with the current is 15 km/hr and the speed of the current is 2.5 km/hr. The man's speed against the current is: []

- a. 8.5 km/hr b. 9 km/hr c. 10 km/hr d. 12.5 km/hr

2. In one hour, a boat goes 11 km/hr along the stream and 5 km/hr against the stream. The speed of the boat in still water (in km/hr) is: []

- a. 3 km/hr b. 5 km/hr c. 8 km/hr d. 9 km/hr

3. A boat running downstream covers a distance of 16 km in 2 hours while for covering the same distance upstream, it takes 4 hours. What is the speed of the boat in still water? []

- a. 4 km/hr b. 6 km/hr c. 8 km/hr d. 10 km/hr

4. The speed of a boat in still water is 15 km/hr and the rate of current is 3 km/hr. The distance travelled downstream in 12 minutes is: []

- a. 1.2 km b. 1.8 km c. 2.4 km d. 3.6 km

5. A man can row at 5 kmph in still water. If the velocity of current is 1 kmph and it takes him 1 hour to row to a place and come back, how far is the place? []

- a. 2.4 km b. 2.5 km c. 3 km d. 3.6 km

6. Speed of a boat in standing water is 9 kmph and the speed of the stream is 1.5 kmph. A man rows to a place at a distance of 105 km and comes back to the starting point. The total time taken by him is: []

- a. 16 hours b. 18 hours c. 20 hours d. 24 hours

7. Today is Monday. After 61 days, it will be: []

- a. Wednesday b. Saturday c. Tuesday d. Thursday

8. How many days are there in x weeks x days? []

- a. $7x$ b. $8x$ c. $14x$ d. 7

9. On 8th Feb, 2005 it was Tuesday. What was the day of the week on 8th Feb, 2004? []

- a. Tuesday b. Monday c. Sunday d. Wednesday

- 10.** The calendar for the year 2007 will be the same for the year: []
a. 2014 **b.** 2016 **c.** 2017 **d.** 2018
- 11.** On 8th Dec, 2007 Saturday falls. What day of the week was it on 8th Dec, 2006? []
a. Sunday **b.** Thursday **c.** Tuesday **d.** Friday
- 12.** January 1, 2008 is Tuesday. What day of the week lies on Jan 1, 2009? []
a. Monday **b.** Wednesday **c.** Thursday **d.** Sunday
- 13.** January 1, 2007 was Monday. What day of the week lies on Jan. 1, 2008? []
a. Monday **b.** Tuesday **c.** Wednesday **d.** Sunday
- 14.** Today is Thursday. The day after 59 days will be? []
a. Monday **b.** Tuesday **c.** Saturday **d.** Sunday
- 15.** If the day before yesterday was Thursday, when will Sunday be? []
a. Day after tomorrow **b.** tomorrow **c.** Two days after today **d.** Today
- 16.** If 25th of August in a year is Thursday, the number of Mondays in that month is []
a. 4 **b.** 5 **c.** 2 **d.** 3
- 17.** 36 men can complete a piece of work in 18 days. In how many days will 27 men complete the same work? []
a. 26 **b.** 22 **c.** 12 **d.** 24

II. True or False

- 18.** If the speed of a boat in still water is u km/hr and the speed of the stream is v km/hr, then: []

Speed downstream = $(u + v)$ km/hr.

Speed upstream = $(u - v)$ km/hr.

- 19.** If the speed downstream is a km/hr and the speed upstream is b km/hr, then: []

Speed in still water = $\frac{1}{2}(a + b)$ km/hr.

Rate of stream = $\frac{1}{2}(a - b)$ km/hr.

- 20.** The year which is not a leap year is called an **ordinary years**. An ordinary year has 366 days. []

ET3_Evaluators

1. Answer: Option C

Explanation:

Man's rate in still water = $(15 - 2.5)$ km/hr = 12.5 km/hr.

Man's rate against the current = $(12.5 - 2.5)$ km/hr = 10 km/hr.

2. Answer: Option C

Explanation:

Speed in still water = $\frac{1}{2}(11 + 5)$ kmph = 8 kmph.

3. Answer: Option B

Explanation:

Rate downstream = $\left(\frac{16}{2}\right)$ kmph = 8 kmph.

Rate upstream = $\left(\frac{16}{4}\right)$ kmph = 4 kmph.

∴ Speed in still water = $\frac{1}{2}(8 + 4)$ kmph = 6 kmph.

4. Answer: Option D

Explanation:

Speed downstream = $(15 + 3)$ kmph = 18 kmph.

Distance travelled = $\left(18 \times \frac{12}{60}\right)$ km = 3.6 km.

5. Answer: Option A

Explanation:

Speed downstream = $(5 + 1)$ kmph = 6 kmph.

Speed upstream = $(5 - 1)$ kmph = 4 kmph.

Let the required distance be x km.

Then, $\frac{x}{6} + \frac{x}{4} = 1$

$\Rightarrow 2x + 3x = 12$

$\Rightarrow 5x = 12$

$\Rightarrow x = 2.4$ km.

6. Answer: Option D

Explanation:

Speed upstream = 7.5 kmph.

Speed downstream = 10.5 kmph.

∴ Total time taken = $\left(\frac{105}{7.5} + \frac{105}{10.5}\right)$ hours = 24 hours.

7. Answer: Option B

Explanation:

Each day of the week is repeated after 7 days.

So, after 63 days, it will be Monday.

After 61 days, it will be Saturday.

8. Answer: Option B

Explanation:

x weeks x days = $(7x + x)$ days = $8x$ days.

9. Answer: Option C

Explanation:

The year 2004 is a leap year. It has 2 odd days.

∴ The day on 8th Feb, 2004 is 2 days before the day on 8th Feb, 2005.

Hence, this day is Sunday.

10. Answer: Option D

Explanation:

Count the number of odd days from the year 2007 onwards to get the sum equal to 0 odd day.

Year	: 2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Odd day	: 1	2	1	1	1	2	1	1	1	2	1
Sum = 14 odd days	≡ 0 odd days.										

Calendar for the year 2018 will be the same as for the year 2007.

11. Answer: Option D

Explanation:

The year 2006 is an ordinary year. So, it has 1 odd day.

So, the day on 8th Dec, 2007 will be 1 day beyond the day on 8th Dec, 2006.

But, 8th Dec, 2007 is Saturday.

8th Dec, 2006 is Friday.

12. Answer: Option C

Explanation:

The year 2008 is a leap year. So, it has 2 odd days.

1st day of the year 2008 is Tuesday (Given)

So, 1st day of the year 2009 is 2 days beyond Tuesday.

Hence, it will be Thursday.

13. Answer: Option **B**

Explanation:

The year 2007 is an ordinary year. So, it has 1 odd day.

1st day of the year 2007 was Monday.

1st day of the year 2008 will be 1 day beyond Monday.

Hence, it will be Tuesday

14. Answer: Option **D**

Explanation:

59 days = 8 weeks 3 days = 3 odd days

Hence if today is Thursday, After 59 days, it will be = (Thursday + 3 odd days)= Sunday

15. Answer: Option **B**

Explanation:

Day before yesterday was Thursday

=>Yesterday was a Friday

=> Today is a Saturday

=> Tomorrow is a Sunday

16. Answer: Option **B**

Explanation:

Given that 25th August = Thursday

Hence 29th August = Monday

So 22nd, 15th and 8th and 1st of August also will be Mondays

Number of Mondays in August = 5

17. Answer: Option **D**

Explanation:

Let the required number of days be xx

More men, less days (indirect proportion)

Hence we can write as

(men) 36 : 27 :: x : 18

$\Rightarrow 36 \times 18 = 27 \times x$

$\Rightarrow 12 \times 18 = 9 \times x$

$\Rightarrow 12 \times 2 = x$

$\Rightarrow x = 24$

18. Answer: Option **T**

19. Answer: Option **T**

20. Answer: Option **F**