

L&amp;T

**L&T Aptitude Questions**

1. 448 ml of mixture A containing milk and water in the ratio of 9:5, respectively is mixed with 'x' ml of mixture B containing milk and water in the ratio of 11:10, respectively. If the ratio of milk to water in the final mixture is 3:2, then find the value of x.

- a) 252
- b) 210
- c) 336
- d) 294

Correct Choice: a

Solution

Quantity of milk in mixture A =  $\frac{9}{14} \times 448 = 288$  ml

Quantity of water in mixture A =  $448 - 288 = 160$  ml

Let amount of milk and water in mixture B is 11y and 10y respectively.

So,  $\frac{(288 + 11y)}{(160 + 10y)} = \frac{3}{2}$

Or,  $576 + 22y = 480 + 30y$

Or,  $8y = 96$

Or,  $y = 12$

So,  $x = 21y = 21 \times 12 = 252$

Hence, option a.

2. A and B together can complete 75% of a work in 33 days while A, B and C together

can complete the whole work in 26 days. If 'C' is 12.5% more efficient than B then find

the time taken by A and C together to complete 70% of the work.

- a) 29.2 days
- b) 28.4 days
- c) 27.8 days
- d) None of these

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Correct Choice: d

Solution

Total time taken by A and B together to complete the whole work =  $33/0.75 = 44$  days

Let total amount of work = 572 units (LCM of 44 and 26)

Efficiency of (A + B) =  $572/44 = 13$  units per day

Efficiency of (A + B + C) =  $572/26 = 22$  units per day

Efficiency of C =  $22 - 13 = 9$  units per day

Efficiency of B =  $9/1.125 = 8$  units per day

Efficiency of A =  $13 - 8 = 5$  units per day

Desired Time =  $(0.70 \times 572)/14 = 28.6$  days

Hence, option d.

3. A certain sum of money at a certain rate of compound interest compounded annually

becomes Rs. 12500 after 2 years and Rs. 19531.25 after 4 years. Find the rate of

compound interest.

- a) 20%
- b) 15%
- c) 17.5%
- d) 25%

Correct Choice: d

Solution

Let the principal amount is Rs. P and the rate of compound interest is R% p.a.

So,  $P(1 + R/100)^2 = 12500$ .....(1)

And,  $P(1 + R/100)^4 = 19531.25$ .....(2)

On dividing equation (2) by equation (1), we get

$(1 + R/100)^2 = 19531.25/12500 = 1.5625$

Or,  $(1 + R/100) = 1.25$

Or,  $R/100 = 0.25$

Or,  $R = 25\%$



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Hence, option d

4. Ratio of speed of a boat in still water to speed of stream is 9:2. The boat travels a distance of  $(D + 40)$  km in downstream and  $D$  km in upstream. If the ratio of time taken by the boat to travel in upstream and in downstream is 4:3, respectively then find the value of  $D$ .

- a) 220
- b) 240
- c) 212
- d) 224

Correct Choice: d

Solution

Let speed of boat in still water and speed of stream is  $9x$  km/h and  $2x$  km/h respectively.

So, Upstream speed =  $9x - 2x = 7x$  km/h

And, downstream speed =  $9x + 2x = 11x$  km/h

According to question;

$$\frac{D}{7x} \div \frac{(D + 40)}{11x} = \frac{4}{3}$$

$$\text{Or, } 33D = 28D + 1120$$

$$\text{Or, } 5D = 1120$$

$$\text{Or, } D = 224$$

Hence, option d.

(5-6) Directions: Answer the questions based on the information given below.

The pie chart given below shows the percentage distribution of total number employees

in five companies.

Note:

1. Total number of employees in all five companies together = 3600

2. Total number of male employees in all five companies together = 2000

The pie chart given below shows the percentage distribution of number of female

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employees in all five companies.

5) Number of male employees in company D is 48% of total number of employees in company F. If the ratio of number of male to female employees in company F is 3:2, then find the number of male employees in company F.

- a) 475
- b) 415
- c) 435
- d) 425

Correct choice: c



6) Number of female employees in company C is how much percent more/less than number of male employees in same company?

- a) 12%
- b) 10%
- c) 15%
- d) 20%

Correct Choice: b

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7) If  $x^2 + 16x - 5 = 0$ , then find the value of  $5x/(x^2 - 9x - 5)$ .

- a)  $1/7$
- b)  $1/9$
- c)  $-1/3$
- d)  $-1/5$

Correct Choice: d

8) The average of 50 observations is 42. Later it was found that 46 was misread as 64.

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Find the correct average.

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- a) 41.64
- b) 40.58
- c) 39.88
- d) 40.36

Correct Choice: a

Solution

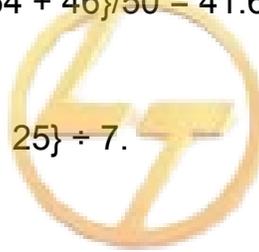
$$\text{Correct average} = \{(50 \times 42) - 64 + 46\} / 50 = 41.64$$

Hence, option a.

9) Find the value of  $\{(2744)^{1/3} \times 25\} \div 7$ .

- a) 20
- b) 30
- c) 40
- d) 50

Correct Choice: d

  
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10) Sourav invested Rs. 2500 on 30% p.a. compound interest, compounded annually

for 2 years. He then gave 20% of the amount received at 40% p.a. simple interest for 3 years. Find the simple interest received.

- a) Rs. 1242
- b) Rs. 1014
- c) Rs. 972
- d) Rs. 1146

Correct Choice: b

Solution

$$\text{Amount received at compound interest} = 2500(1 + 30/100)^2 = \text{Rs. } 4225$$

$$\text{Interest received at simple interest} = (0.20 \times 4225 \times 40 \times 3) / 100 = \text{Rs. } 1014$$

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Hence, option b.

11) If  $(p/q) + (q/p) = 2$ , then find the value of  $(p^3 + q^3)/pq$

- a) 0
- b)  $(p + q)$
- c) -1
- d)  $-(p + q)$

Correct Choice: b

12) For what least value of x, the number  $203x88$  is divisible by 36

- a) 4
- b) 6
- c) 3
- d) 2

Correct Choice: b

13) The ratio of the perimeters of a rectangular and squared field is 7:6. Each side of the squared field is equal to the breadth of the rectangle. Find the length of the rectangular field if the area of the rectangular field is 4800 m<sup>2</sup>.

- a) 60 metres
- b) 80 metres
- c) 40 metres
- d) 120 metres

Correct Chocie: b

14. The ratio of the number of boys and girls in school 'A' is 6:5, respectively and that in school 'B' is 8:3, respectively. The number of boys and girls in school 'A' is 100 less and

100 more than that in 'B'. Find the total number of students in school 'A'.

- a) 450

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b) 600

c) 550

d) 720

Correct Choice: c

15) The value  $(\cos 37^\circ - \sin 53^\circ) + (\sec 41^\circ - \operatorname{cosec} 49^\circ) + (\tan 78^\circ - \cot 12^\circ) + (\tan 256^\circ - \sec 256^\circ)$  is

a) 1

b) 0

c) -1

d) 2

Correct Choice: c



16) The given bar graph shows the number of births of male and female child in six different cities in a month.

Find the difference between the total number of male child born in 'B' and 'C' together and total number of female child born in 'D' and 'E' together.

a) 150

b) 180

c) 240

d) 110

Correct Choice: d

17) Pipe A can fill a tank in 18 hours and pipe B can fill it in 24 hours. Pipe A is opened for 6 hours then closed, then pipe B is opened for 4 hours and then closed. Tank is 125 litres full. What is the full volume of the tank?

a) 180 litres

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- b) 250 litres
  - c) 275 litres
  - d) Data insufficient
- Correct Choice: b

18. Rahim spent 10% of his yearly income on house rent, 14% on buying a new car, 12% on kids' school. He spent 15% and 10% of the remaining on groceries and vacation in Spain. If he saved Rs.518400 in the entire year, then find his monthly salary?

- a) Rs. 90000
- b) Rs. 108000
- c) Rs. 98000
- d) Rs. 136000

Correct Choice: a

19. There are few balls of red and black colour in a bag. Black colour balls are one less than twice the number of red balls. Probability of getting two balls of same colour is  $\frac{35}{68}$ . Number of black balls in the bag are:

- a) 6
- d) 17
- c) 11
- d) 12

Correct Choice: c

20. Three containers A, B, and C have pure solution of unknown chemicals p, q, and r respectively with volume 12 litre, 18 litre and 36 litres respectively. All the three are non-reactive. They are poured in a big container and mixed thoroughly. 11 litre sample of that mixture will have chemical p what percent less than chemical r?

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- a) 66.67%
- b) 33.33%
- c) 75%
- d) 55.55%

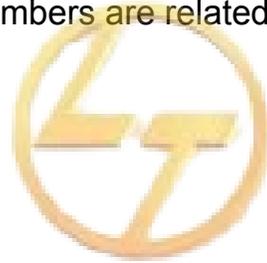
Correct Choice: a

## L&T Reasoning Questions

1. Select the set in which the numbers are related in the same way as are the numbers of the following set.

(96, 80, 64)

- 1. (64, 80, 72)
- 2. (100, 88, 69)**
- 3. (72, 56, 62)
- 4. (52, 64, 47)



2. In the following question, select the related letter/letters from the given alternatives.

HIK : KLN :: PQS : ?

- 1. TUW
- 2. STV**
- 3. STU
- 4. TUX

3. In the month of June, the number of girls in a class was half of the number of boys. In July, seven more girls took admission, whereas seven boys left the school. Now, the number of boys and girls is equal in the class. How many students in total were there in the class in June?

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1. **42**

2. 25

3. 35

4. 20

4. In the following question, select the missing number in the given series. 9, 28, 86, 261, 787, ?

1. **2366**

2. 1795

3. 2175

4. 2285

5, Amit walks 20 metres towards north. Then turns right and walk another 16metres. Then right and walks for 8 metres to reach college R. He again turns to his right and walks for 16 metres. What is the straight line distance (in metres) between the starting point and college R?

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1.  $12\sqrt{2}$

2. **20**

3. 14

4.  $14\sqrt{3}$

6. In a code language, QUESTION is written as TRHPWFRK. How will SYMPATHY be written as in that language?

1. **VVPMDQKV**

2. VVPNDQKV

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3. VVPMDQCV

4. VUPMDQKV

7. Select the number-pair in which the two number are related in the same way as are the two numbers of the following number-pair

530: 23

1. **290: 17**

2. 323: 19

3. 223: 13

4. 238: 14



8. Two vans X and Y start from the same point. X travels 5 km West, then turns to its left and travels 3 km. Y travels 13 km South, then turns West and travels 5 km, then turns to its

left and travels 7 km. Where is Y with respect to X now?

1. 11 km South

2. **17 km South**

3. 17 km North

4. 11 km North

9. Select the term that will come next in the following series.

JVD, MTF, PRH, ? VNL

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1. RPJ

2. SPJ

3. SQJ

4. RQJ

**10.** In the following question, four groups of three numbers are given. In each group the second and third number are related to the first number by a Logic/Rule/Relation. Three are similar on basis of same Logic/Rule/Relation. Select the odd one out from the given alternatives.

1. (63, 76, 89)

2. (97, 110, 123)

3. **(92, 105, 116)**

4. (74, 87, 100)



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**11.** Select the word-pair in which the two words are related in the same way as are the two words in the following word-pair.

Pulmonology : Lungs

1. Cardiology: Liver

2. **Ophthalmology: Eyes**

3. Pathology: Tissues

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## 4. Zoology: Plants

**12.** In a row of boys, Rahul is 19th from top and Ajay is 21st from bottom. They interchange their position, Ajay now becomes 28th from bottom. How many boys are there in the row?

1. 47

**2. 46**

3. 45

4. 48



**13.** In a certain code language, "HARMS" is written as "81181319" and "FLUTE" is written as "61221205". How is "WOUND" written in that code language?

1. 21144152

2. 21441514

**3. 231521144**

4. 171921415

**14.** Two trucks start from the same warehouse. Truck A goes 6 km North, then turns to its right and goes 4 km. In the meanwhile truck B goes 9 km East, then turns North and goes 6 km, then turns to its right and goes 4 km. Where is truck B with respect to truck A?

1. 17 km East

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2. 9 km West

3. 17 km West

**4. 9 km East**

15. In the question two statements are given, followed by two conclusions, I and II. You have to consider the statements to be true even if it seems to be at variance from commonly known facts. You have to decide which of the given conclusions, if any, follows from the given statements.

Statement I: No mirrors are glass

Statement II: No reflective are mirrors

Conclusion I: All glass are reflective

Conclusion II: All reflective are glass



1. Only conclusion I follows

2. Only conclusion II follows

3. Both conclusions I and II follow

**4. Neither conclusion I nor conclusion II follows**

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16. Select the option that is related to the third letter-cluster in the same way as the second letter-cluster is related to the first letter-cluster.

BOOK : TWIQ :: BEER : \_\_\_\_\_

1. TVEV

2. TVSX

**3. TMYX**

4. TMGE

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17. In the following question, four groups of three numbers are given. In each group the second and third number are related to the first number by a Logic/Rule/Relation. Three are similar on basis of same Logic/Rule/Relation. Select the odd one out from the given alternatives.

1. (44, 42, 36)

2. (56, 54, 48)

3. **(38, 36, 32)**

4. (64, 62, 56)

18. In the following question, four groups of three numbers are given. In each group the second and third number are related to the first number by a Logic/Rule/Relation. Three are similar on basis of same Logic/Rule/Relation. Select the odd one out from the given alternatives.

1. (44, 42, 36)

2. (56, 54, 48)

3. **(38, 36, 32)**

4. (64, 62, 56)

19. In a code language, QUESTION is written as TRHPWFRK. How will SYMPATHY be written as in that language?

1. **VVPMDQKV**

2. VVPNDQKV

3. VVPMDQCV

4. VUPMDQKV



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20. In a certain code language, '÷' represents '+', '-' represents '×', '+' represents '÷' and '×' represents '-'. Find out the answer to the following question.  $24 \div 14 - 5 + 10 \times 14 = ?$

1. 39
2. 45
3. 27
4. 17

### L&T Verbal Ability/ English Questions

(1-3) In the following questions, a sentence has been given in Active/Passive Voice. Out of the four alternatives suggested, select the one which best expresses the same sentence in Passive/Active Voice.

- 1) You should freeze the cake about three hours before you use it.
  - a) Cake should be frozen about three hours before use.
  - b) Cake should be frozen by you three hours before use.
  - c) Cake should be frozen about three hours before you use it.
  - d) Cake should be frozen about three hours before it is used.

Correct Choice: d

(1-3) In the following questions, a sentence has been given in Active/Passive Voice. Out of the four alternatives suggested, select the one which best expresses the same sentence in Passive/Active Voice.

- 2) Doctor requested us to pay attention.
  - a) We are requested by doctor to pay attention.

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- b) We were asked by doctor please pay attention.
- c) We were asked by doctor to pay attention.
- d) We were requested by doctor to pay attention.

Correct Choice: d

**(1-3) In the following questions, a sentence has been given in Active/Passive Voice. Out of the four alternatives suggested, select the one which best expresses the same sentence in Passive/Active Voice.**

- 3) India is evolving a new plan to control coronavirus pandemic.
- a) A new plan is evolved by India to control coronavirus pandemic.
- b) A new plan has been evolved by India to control coronavirus pandemic.
- c) A new plan was being evolved to control coronavirus pandemic by India.
- d) A new plan is being evolved by India to control coronavirus pandemic

Correct Choice: d

**(4-7) In the following questions, a sentence has been given in Direct/Indirect speech. Out of the four alternatives suggested, select the one which best expresses the same sentence in Indirect/Direct speech.**

- 4) My Grandfather always says, "Bathing at 5a.m in the morning is a good habit."
- a) My Grandfather always say that bathing at 5a.m in the morning is a good habit.
- b) My Grandfather always says that bathing at 5a.m in the morning is a good habit.

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- c) My Grandfather always advises that bathing at 5a.m in the morning was a good habit.
- d) My Grandfather always warns that to bathing at 5a.m in the morning was a good habit.

Correct Choice: b

**(4-7) In the following questions, a sentence has been given in Direct/Indirect speech. Out of the four alternatives suggested, select the one which best expresses the same sentence in Indirect/Direct speech.**

- 5) "I lost my book yesterday", Ravikant said to his teacher.
- a) Ravikant admitted to his teacher that he had lost his book the previous day.
- b) To his teacher Ravikant was admitted that he has lost his book the previous day.
- c) Ravikant admitted losing his book to his teacher yesterday.
- d) Ravikant said to his teacher that he have lost my book the previous day.

Correct Choice: a

**(4-7) In the following questions, a sentence has been given in Direct/Indirect speech. Out of the four alternatives suggested, select the one which best expresses the same sentence in Indirect/Direct speech.**

- 6) Soni said to me, "Will you come to my party on Saturday"?
- a) Soni asked me that I come to her party on Saturday.
- b) Soni told me to come to her party on Saturday.
- c) Soni asked me if I would come to her party on Saturday.
- d) Soni said I should come to her party on Saturday.

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Correct Choice: a

**(4-7) In the following questions, a sentence has been given in Direct/Indirect speech. Out of the four alternatives suggested, select the one which best expresses the same sentence in Indirect/Direct speech.**

- 7) The Professor said, "Have you cleared your last semester papers?"
- a) The Professor asked whether I cleared my last semester papers.
  - b) The Professor asked if I had cleared my previous semester papers.
  - c) The Professor asked whether I have cleared my last semester papers.
  - d) The Professor asked if I have cleared my previous semester papers.

Correct Choice: b

**(8-10) Select the word which means the same as the group of words given.**

8) Become apparent through the appearance of symptoms.

- a) manifest
- b) distinct
- c) vague
- d) divulged

Correct Choice: a

Explanation:

**Manifest** means clear or obvious to the eye or mind.

**Divulge** means make known (private or sensitive information)

**Vague** means of uncertain, indefinite, or unclear character or meaning.

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**(8-10) Select the word which means the same as the group of words given.**

9) Represent something as being less important than it really is.

- a) discriminant
- b) stride
- c) underplay
- d) imperious

Correct Choice: c

Explanation:

**Underplay** means represent (something) as being less important than it really is.

**Stride** means walk with long, decisive steps in a specified direction.

**Imperious** means arrogant and domineering.

**(8-10) Select the word which means the same as the group of words given.**

10) Match or surpass a person by imitation.

- a) parallel
- b) emulate
- c) ditto
- d) impression

Correct Choice: b

Explanation:

**Emulate** means match or surpass (a person or achievement), typically by imitation.

**Ditto** means used to indicate that something already said is applicable a second time.

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**(11-15) Select the most appropriate word to fill in the blank.**

11) The first phase of polling for the Lok Sabha election is barely three weeks away, but the Congress is yet to \_\_\_\_\_ its alliances.

- a) fill
- b) stock
- c) seal
- d) tamper

Correct Choice: c

Explanation:

**Seal:** conclude, establish, or secure (something) definitively.

**(11-15) Select the most appropriate idiom (in the context) to fill in the sentence.**

12) After a prolonged silence, Rohan \_\_\_\_\_ and suggested ways to achieve the target.

- a) broke the news
- b) bade defiance
- c) burnt his boats
- d) broke the ice

Correct Choice: d

Explanation:

**Break the ice:** to initiate social interchanges and conversation; to get something started.



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**(11-15) Select the most appropriate idiom (in the context) to fill in the sentence.**

13) This Indian cricket team knows how to \_\_\_\_\_.

- a) run short of
- b) red tapism
- c) rank and file
- d) rule the roost

Correct Choice: d

Explanation:



**rule the roost:** be in complete control; to dominate.

**(11-15) Select the most appropriate idiom (in the context) to fill in the sentence.**

14) Continuous interrogation finally made the terrorist \_\_\_\_\_ and the bomb blast was averted.

- a) set store by
- b) spill the beans
- c) sail under false colours
- d) sow his wild oats

Correct Choice: b

Explanation:

**Spill the beans:** reveal secret information unintentionally or indiscreetly.

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(11-15) Select the most appropriate idiom (in the context) to fill in the sentence.

15) He managed to get the contract by \_\_\_\_\_.

- a) playing to the gallery
- b) pulling strings
- c) playing fast and loose
- d) picking holes

Correct Choice: b

Explanation:

**Pull strings:** make use of one's influence and contacts to gain an advantage unofficially or unfairly.

16) Select the most appropriate antonym of the given word.  
**Flog**

- a) whop
- b) compliment
- c) flag
- d) flax

Correct Choice: c

Explanation:

**Flog:** means beat (someone) with a whip or stick as a punishment and compliment means a polite expression of praise or admiration.



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17) Select the most appropriate antonym of the given word.  
**Vibrant**

- a) Drab
- b) Gaudy
- c) Jazzy
- d) Vivid

Correct Choice: a

Explanation:

**Vibrant:** full of energy and life.

**Drab:** cheerless; dreary.

**Gaudy:** extravagantly bright or showy, typically so as to be tasteless.

**Jazzy:** of, resembling, or in the style of jazz.

**Vivid:** producing powerful feelings or strong, clear images in the mind.

18) Select the most appropriate antonym of the given word.  
**Reform**

- a) Ameliorate
- b) Worsen
- c) Amend
- d) Emend

Correct Choice: b

Explanation:



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**Reform** means make changes in (something, especially an institution or practice) in order to improve it while worsen means make or become worse.

**(19-23) In the following passage some words have been deleted. Fill in the blanks with the help of the alternatives given. Select the most appropriate option for each blank.**

(1)\_\_\_\_\_ the labour market and creating a separate labour market for migrant workers — who are easy to exploit — (2)\_\_\_\_\_ a common strategy of employers across India. The (3)\_\_\_\_\_ conditions migrant workers face have been widely documented. They earn low wages, work very long hours without any overtime benefits, and are almost without (4)\_\_\_\_\_ leave or social protection. Lakhs of unskilled and migrant workers live on worksites in makeshift huts (usually made of tin sheets) or on roads, slums and in illegal settlements not served by municipalities. They are neither able to save much to improve their conditions back in their home States (5)\_\_\_\_\_ save enough to live comfortably in Gujarat. They go back home only once or twice to celebrate festivals.

**19) Select the most appropriate option for blank No.1.**

- a) Segment
- b) Segmenting
- c) Segment in
- d) Segmenting in

Correct Choice: b

**(19-20) In the following passage some words have been deleted. Fill in the blanks with the help of the alternatives given. Select the most appropriate option for each blank.**

(1)\_\_\_\_\_ the labour market and creating a separate labour market for migrant workers — who are easy to exploit — (2)\_\_\_\_\_ a common strategy of employers across India. The (3)\_\_\_\_\_ conditions migrant workers face have been widely documented. They earn low wages, work very long hours without any overtime benefits, and are almost without (4)\_\_\_\_\_ leave or social

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protection. Lakhs of unskilled and migrant workers live on worksites in makeshift huts (usually made of tin sheets) or on roads, slums and in illegal settlements not served by municipalities. They are neither able to save much to improve their conditions back in their home States (5)\_\_\_\_\_save enough to live comfortably in Gujarat. They go back home only once or twice to celebrate festivals.

**20) Select the most appropriate option for blank No.2.**

- a) have been
- b) has
- c) has been
- d) have



Correct Choice: c

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