

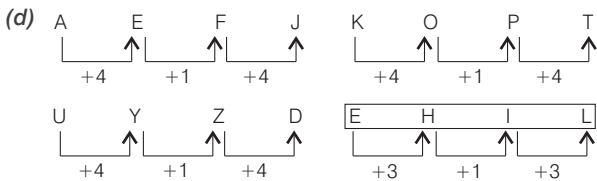
Staff Selection Commission, Combined Graduate Level

SSC CGL [TIER-1]

Part A General Intelligence

Directions (Q.Nos. 1-3) Find the odd words/letters/ numbers from the given alternatives.

1. (a) AEFJ (b) KOPT (c) UYZD (d) EHIL



2. (a) 81 : 243 (b) 16 : 64 (c) 64 : 192 (d) 25 : 75



3. (a) Distinguish (b) Scatter
(c) Differentiate (d) Classification

(a) Except 'Distinguish', all others are related to separate.

4. Arrange the following words as per the English dictionary and find the last word.

Leaf, Lean, Leave, Less

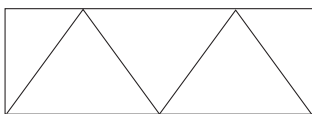
- (a) Lean (b) Leave (c) Less (d) Leaf

(c) Arrangement of the given words as per English dictionary is as follows.

Leaf → Lean → Leave → Less

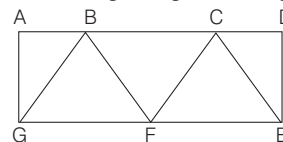
It is clear from above that last word is less.

5. How many triangles are there in the given figure?



- (a) 6 (b) 7
(c) 8 (d) 9

(*) There are following triangles in the given figure

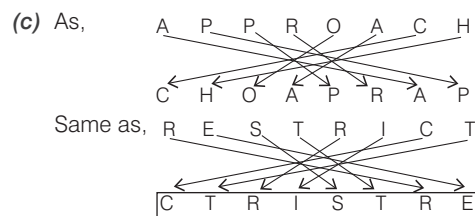


ABG, BGF, BFC, CFE, DCE

Hence, there are total five triangles in the given figure.

6. In a certain code language, APPROACH is coded as CHOAPRAP. How will RESTRICT be coded?

- (a) CTRISTER (b) ERTSIRTC (c) CTRISTRE (d) TCIRSTRE



Note Here, every two letters are written in reverse order.

Directions (Q.Nos. 7-9) Select the related word/letter/ number from the given alternative series.

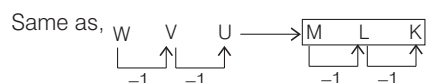
7. Apes : Gibber :: Camels:?

- (a) Grunt (b) Cheep (c) Bleat (d) Whine

(a)

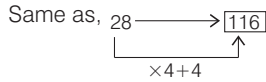
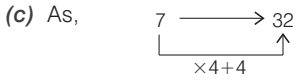
8. TSR : FED :: WVU?

- (a) CAB (b) MLK (c) PQS (d) GFH



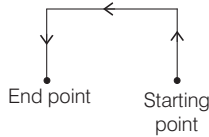
2 Staff Selection Commission, Combined Graduate Level (TIER-1) Exam

9. $7 : 32 :: 28 : ?$
 (a) 126 (b) 136 (c) 116 (d) 128



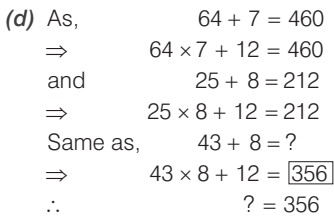
10. John, in the morning, started walking towards North and then turn towards opposite side of the Sun. He then turn left again and stops. Which direction is he facing now?
 (a) North (b) West
 (c) South (d) East

(c) Walking diagram of John is as follows

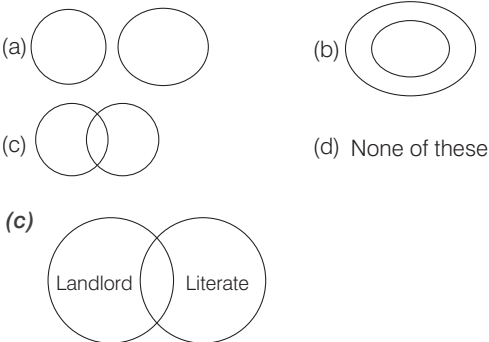


It is clear from diagram that John is in facing South direction now.

11. If $64 + 7 = 460$, and $25 + 8 = 212$ then, $43 + 8 = ?$
 (a) 360 (b) 376
 (c) 332 (d) 356

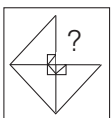


12. In a village, there are landlords of which some are literate. Which of the following best expresses the relationship between them?

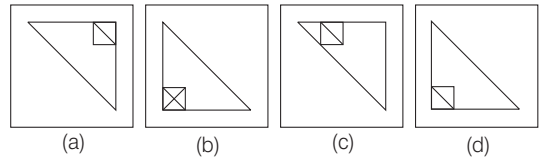


13. Which one of the given figure completes the given figure?

Question Figure



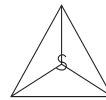
Answer Figures



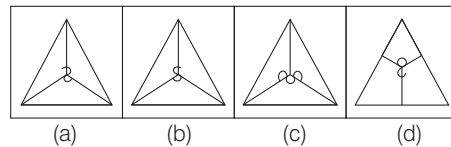
(d)

14. What is the mirror image of the following figure?

Question Figure



Answer Figures



(a)

15. If the given words are arranged in descending order, then which of the following be last?

Sapling, Tree, Plant, Seed

- (a) Sapling (b) Plant
 (c) Seed (d) Tree

(c) Descending order of the given words is as follows

Tree \rightarrow Plant \rightarrow Sapling \rightarrow Seed

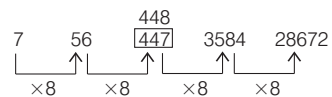
It is clear from above that seed come in last.

16. Which one is wrong number in the given series?

7, 56, 447, 3584, 28672

- (a) 3584 (b) 56 (c) 7 (d) 447

(d) The order of given series is as follows



It is clear from above that in the series number 447 is wrong. In place of it number 448 should be come.

17. In this question, a statement is followed by assumption I and II. You have to consider the statements to be true even if they seem to be at variance from the commonly known facts. You have to decide, which of the following assumptions logically follows from the given statement.

Statement Only good singers are invited in the conference. No one without sweet voice is a good singer.

Assumption I All invited singers in the conference have sweet voice.

Assumption II Those singers who do not have sweet voice are not invited in the conference.

- (a) Only I follows (b) Neither I nor II follows
 (c) Both I and II follow (d) Only II follows

(c) On the basis of given statement, we could say that both assumption I and II follow.

18. If '+' means '×', '-' means '÷', '×' means '-' and '÷' means '+', then find the value of the following equation.

$$6 + 64 - 8 \div 45 \times 8$$

- (a) 85 (b) 76
(c) 87 (d) 75

(a) Given equation,

$$6 + 64 - 8 \div 45 \times 8$$

Now, changing the sign as per the question,

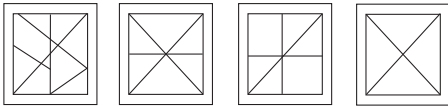
$$\begin{aligned} 6 \times 64 \div 8 + 45 - 8 \\ = \frac{6 \times 64}{8} + 45 - 8 \\ = 6 \times 8 + 45 - 8 \\ = 48 + 45 - 8 \\ = 93 - 8 = 85 \end{aligned}$$

19. Which of the following has the given figure embedded in it?

Question Figure



Answer Figures

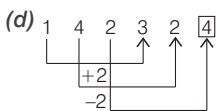


(b)

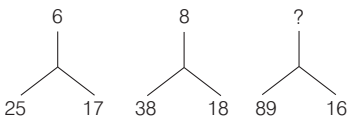
Directions (Q.Nos. 20 and 21) Find the missing number from the given alternatives.

20. 1, 4, 2, 3, 2, ?

- (a) 2 (b) 5
(c) 3 (d) 4



21.



- (a) 13 (b) 15
(c) 17 (d) 19

(b) As,

$$25 + 17 = 42 \Rightarrow \frac{42}{7} = 6$$

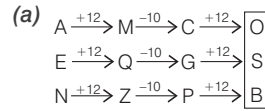
$$\text{and } 38 + 18 = 56 \Rightarrow \frac{56}{7} = 8$$

$$\text{Same as, } 89 + 16 = 105 \Rightarrow \frac{105}{7} = 15$$

Directions (Q. Nos. 22 and 23) Find the missing number/ letter from the given alternatives.

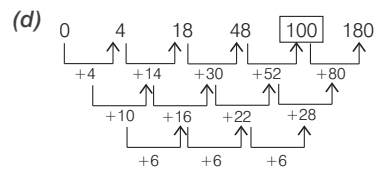
22. AEN, MQZ, CGP, ?

- (a) OSB (b) PUE
(c) MPX (d) OTC



23. 0, 4, 18, 48, ?, 180

- (a) 58 (b) 68
(c) 84 (d) 100



24. Select the word, which cannot be formed using the letters of the given word?

SEGREGATION

- (a) EAGER (b) SEA
(c) GATE (d) NATION

(d) By using the letters of given word, word NATION cannot be formed because in the given word, letter N is used only once.

25. A word is represented by only one set of numbers as given in any one of the alternatives. The sets of numbers given in the alternatives are represented by two classes of alphabets by two matrices given below. The columns and row of Matrix I are numbered from 0 to 4 and that of Matrix are numbered from 5 to 9. A letter from these matrices can be represented first by its row and next by its column. Ex: 'U' can be represented by 03, 14, 32 etc. and 'O' can be represented by 56, 67, 75 etc. Similarly you have to identify the set for the word given in the question.

PURE

Matrix-I

	0	1	2	3	4
0	E	S	R	U	P
1	R	N	S	E	U
2	U	E	N	R	S
3	S	R	U	N	P
4	N	U	E	S	R

Matrix-II

	5	6	7	8	9
5	W	O	P	T	I
6	T	I	O	W	P
7	O	U	I	P	E
8	I	P	T	O	W
9	P	T	R	E	U

- (a) 69, 14, 04, 98 (b) 34, 76, 31, 79
(c) 04, 32, 87, 59 (d) 69, 99, 31, 01

(b) For given word PURE, group of letters can be represented by the numbers 34, 76, 31, 79.

Part B Arithmetic

26. A number when divided by 6 leaves remainder 3. When the square of the same number is divided by 6, the remainder is
(a) 0 (b) 2 (c) 1 (d) 3

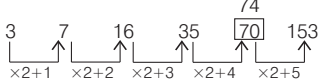
(d) We know that if a number or square of a number is divided by the same number, remainder is same in both the conditions.

Hence, square of a number is divided by 6, we get 3 as remainder.

27. Find the wrong number in the given series.

3, 7, 16, 35, 70, 153
(a) 70 (b) 16 (c) 153 (d) 35

(a) The sequence of given series is as follows



It is clear from above, number 70 is wrong in the series. In place of 70, number 74 would be come.

28. The averages of runs scored by a player in 11 innings is 63 and the average of his first six innings is 60 and the average of last six innings is 65. Find the runs scored in sixth inning.

(a) 60 (b) 54 (c) 67 (d) 57

(d) \therefore Average score of runs of 11 innings = 63

\therefore Total score of runs of 11 innings = $11 \times 63 = 693$

\therefore Average score of runs of first 6 innings = 60

\therefore Total score of runs of 6 innings = $6 \times 60 = 360$

Now, average score of runs of last 6 innings = 65

\therefore Total score of runs of last 6 innings = $6 \times 65 = 390$

Hence, Total runs scored in sixth innings

$$= 360 + 390 - 693 = 750 - 693 = 57$$

29. In a parade of school students, the number of boys and girls are in the ratio of 9 : 7 respectively and the total number of boys and girls are 256. Find the number of girls.

(a) 102 (b) 112 (c) 118 (d) 128

(b) Let, number of boys and girls are $9x$ and $7x$, respectively.

Given, total number of boys and girls = 256

$$\therefore \text{Number of girls} = \frac{7x}{(9x + 7x)} \times 256 = \frac{7x \times 256}{16x} = \frac{7 \times 256}{16} = 7 \times 16 = 112$$

30. Two persons ride towards each other from two places 55 km apart, one riding at 12 km/h and the other at 10 km/h. When will they be 11 km apart?

(a) 2 h and 30 min (b) 1 h and 30 min
(c) 2 h (d) 2 h and 45 min

(c) Relative speed of both persons = $12 + 10 = 22$ km/h

Now, distance between both of them = $55 - 11 = 44$ km

\therefore Time, when distance is 11 km between both of them

$$= \frac{\text{Total distance}}{\text{Relative speed}} = \frac{44}{22} = 2 \text{ h}$$

Hence, they will be apart 11 km after 2 h.

31. A train 150 m long passes a telegraphic post in 12 seconds. Find the speed of the train.

(a) 50 km/h (b) 12.5 km/h
(c) 25 km/h (d) 45 km/h

(d) Length of train = 150 m

$$= \frac{150}{1000} \text{ km} = \frac{3}{20} \text{ km}$$

$$\text{Time} = 12 \text{ s} = \frac{12}{60 \times 60} \text{ h} = \frac{1}{300} \text{ h}$$

$$\therefore \text{Speed of train} = \frac{3/20}{1/300} = \frac{3 \times 300}{20 \times 1} = 45 \text{ km/h}$$

32. At an election, a candidate secures 40% of the votes, but is defeated by the other candidate by a majority of 298 votes. Find the total number of votes recorded.

(a) 1580 (b) 1490 (c) 1470 (d) 1530

(b) Let total number of votes recorded = x

Now, according to the question,

$$(60\% \text{ of } x) - (40\% \text{ of } x) = 298$$

$$20\% \text{ of } x = 298$$

$$\Rightarrow x \times \frac{20}{100} = 298 \Rightarrow \frac{x}{5} = 298$$

$$\Rightarrow x = 5 \times 298 \Rightarrow x = 1490$$

33. If $x - \frac{1}{x} = 2$, then what is the value of $x^2 + \frac{1}{x^2}$?

(a) 4 (b) 5 (c) 3 (d) 6

(d) Given, $x - \frac{1}{x} = 2$

Now, squaring both sides,

$$\Rightarrow x^2 + \frac{1}{x^2} - 2 = 4 \Rightarrow x^2 + \frac{1}{x^2} = 4 + 2$$

$$\Rightarrow x^2 + \frac{1}{x^2} = 6$$

34. The ratio between the height of tower and the point at some distance is $5\sqrt{3}:5$. What will be the angle of elevation?

(a) 30° (b) 60°
(c) 90° (d) 45°

(b) Let, height of tower = $5\sqrt{3}x$
and distance of a point = $5x$

Let, angle of elevation = θ

Then, in $\triangle ABC$,

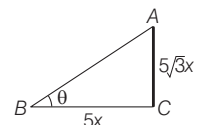
$$\tan \theta = \frac{AC}{BC}$$

$$\Rightarrow \tan \theta = \frac{5\sqrt{3}x}{5x}$$

$$= \sqrt{3}$$

$$\Rightarrow \tan \theta = \sqrt{3} = \tan 60^\circ$$

$$\Rightarrow \theta = 60^\circ$$



35. Successive discount of 20% and 10% is given on an item of ₹ 700, find the selling price.

- (a) 504 (b) 196 (c) 582 (d) 601

(a) Here, $r_1 = 20\%$, $r_2 = 10\%$ and marked price = ₹ 700

$$\begin{aligned} \therefore \text{SP of an item} &= 700 \left(\frac{1-20}{100} \right) \left(\frac{1-10}{100} \right) \\ &= 700 \times \frac{80}{100} \times \frac{90}{100} \\ &= 7 \times 8 \times 9 = ₹ 504 \end{aligned}$$

36. The population of a State is 20000. It increases by 20% during the first year and 30% during the second year. The population after two years will be

- (a) 32000 (b) 40000 (c) 31200 (d) 30000

(c) Population after two years = $20000 \left(1 + \frac{20}{100} \right) \left(1 + \frac{30}{100} \right)$

$$\begin{aligned} &= 20000 \times \frac{120}{100} \times \frac{130}{100} \\ &= 2 \times 120 \times 130 = 31200 \end{aligned}$$

37. A reduction of 20% in the price of rice enable a buyer to buy 5 kg more for ₹ 1200. The reduced price per kg of rice will be:

- (a) 36 (b) 45 (c) 48 (d) 60

(c) Let, initial price of rice = ₹ x per kg

Now, a reduction of 20% in price,

$$\text{Reduced price of rice} = x \times \frac{80}{100} = ₹ \frac{4x}{5} \text{ per kg}$$

Now, according to the question,

$$\frac{1200}{\frac{4x}{5}} - \frac{1200}{x} = 5 \Rightarrow \frac{6000}{4x} - \frac{1200}{x} = 5$$

$$\Rightarrow \frac{1500}{x} - \frac{1200}{x} = 5 \Rightarrow \frac{300}{x} = 5 \Rightarrow x = \frac{300}{5} = 60$$

$$\Rightarrow x = ₹ 60$$

$$\therefore \text{Reduced price of rice} = \frac{4x}{5} = \frac{4 \times 60}{5} = ₹ 48 \text{ per kg}$$

38. A man spends 60% of his income on different expenditures. His income is increased by 20% and his expenditure also increased by 10%. Find the percentage decrease in his saving?

- (a) 10% (b) 15% (c) 20% (d) 25%

(a) Let, income of a person = ₹ 100

\therefore Spend on different expenses = ₹ 60

\therefore Total saving = $100 - 60 = ₹ 40$

$$\text{Now, income after increment of } 20\% = \frac{120}{100} \times 100 = ₹ 120$$

$$\begin{aligned} \text{and expences after increment of } 10\% &= 120 \times (60 + 10)\% \\ &= 120 \times \frac{70}{100} = ₹ 84 \end{aligned}$$

\therefore New saving = $120 - 84 = ₹ 36$

$$\text{Now, percentage decrease} = \left(\frac{40 - 36}{40} \right) \times 100$$

$$= \frac{4}{40} \times 100 = \frac{100}{10} = 10\%$$

39. The length of side AB and side BC of a scalene triangle ABC are 12 cm and 8 cm respectively. The size of angle C is 59° . Find the length of side AC .

- (a) 12 (b) 10 (c) 14 (d) 16

(b) Given, $\angle C = 59^\circ \approx 60^\circ$, $a = 12$ cm, $b = 8$ cm

Now, by cosine formula,

$$\cos C = \frac{a^2 + b^2 - c^2}{2ab} \Rightarrow \cos 60^\circ = \frac{(12)^2 + (8)^2 - (c)^2}{2 \times 12 \times 8}$$

$$\Rightarrow \frac{1}{2} = \frac{144 + 64 - (c)^2}{192} \Rightarrow \frac{1}{2} = \frac{208 - c^2}{192} \Rightarrow 416 - 2c^2 = 192$$

$$\Rightarrow 2c^2 = 416 - 192 \Rightarrow 2c^2 = 224 \Rightarrow c^2 = 112$$

$$\Rightarrow c = \sqrt{112} = 10.58 \Rightarrow c = 10.58 \approx 10 \Rightarrow c = 10 \text{ cm}$$

40. Find the value of $\left(\frac{\sin 27^\circ}{\cos 63^\circ} \right)^2 + \left(\frac{\cos 63^\circ}{\sin 27^\circ} \right)^2$

- (a) 0 (b) 2 (c) 3 (d) 1

(b) $\left(\frac{\sin 27^\circ}{\cos 63^\circ} \right)^2 + \left(\frac{\cos 63^\circ}{\sin 27^\circ} \right)^2$

$$= \left[\frac{\sin(90^\circ - 63^\circ)}{\cos 63^\circ} \right]^2 + \left[\frac{\cos 63^\circ}{\sin(90^\circ - 63^\circ)} \right]^2$$

$$= \left(\frac{\cos 63^\circ}{\cos 63^\circ} \right)^2 + \left(\frac{\cos 63^\circ}{\cos 63^\circ} \right)^2 = (1)^2 + (1)^2 = 1 + 1 = 2$$

41. The sum of the age of mother and a mother and her daughter is 60 years. 12 years ago the mother was eight times as old as her daughter. How old is the daughter at present?

- (a) 20 yr (b) 28 yr (c) 16 yr (d) 12 yr

(c) Let, present age of mother = M years

and present age of daughter = D years

Now, according to the question,

$$M + D = 60 \quad \dots(i)$$

$$\text{and } (M - 12) = 8(D - 12) \Rightarrow M - 12 = 8D - 96$$

$$\Rightarrow M - 8D = -84 \quad \dots(ii)$$

Now, solving Eqs. (i) and (ii), we have

$$D = 16 \text{ years}$$

Hence, present age of daughter = 16 years

42. In one hour, a boat goes 12 km along the stream and 8 km against the stream. The speed of the boat in still water is

- (a) 12 km/h (b) 11 km/h (c) 10 km/h (d) 8 km/h

(c) Speed of boat

$$= \frac{1}{2} (\text{Downstream speed} + \text{Upstream speed})$$

$$= \frac{1}{2} \left(\frac{12}{1} + \frac{8}{1} \right) = \frac{1}{2} (12 + 8) = \frac{1}{2} \times 20 = 10 \text{ km/h}$$

43. A shopkeeper buys 80 articles for ₹ 2400 and sells them for a profit of 16%. Find the selling price of one article.

- (a) ₹ 36.40 (b) ₹ 34.80 (c) ₹ 35.60 (d) ₹ 33.80

(b) \therefore CP of 80 articles = ₹ 2400. \therefore CP of 1 article = $\frac{2400}{80} = ₹ 30$

$$\begin{aligned} \text{Now, SP of 1 article at profit of } 16\% &= \frac{30 + 30 \times 16}{100} \\ &= 30 + 4.80 \\ &= ₹ 34.80 \end{aligned}$$

6 Staff Selection Commission, Combined Graduate Level (TIER-1) Exam

44. Find the amount which Shyam will get on ₹ 4096, if he gave it for 18 months at $12\frac{1}{2}\%$ per annum, interest being compounded half yearly.

- (a) ₹ 5813 (b) ₹ 4515 (c) ₹ 4913 (d) ₹ 5713

(c) Here, $P = ₹ 4096$, $R = 12\frac{1}{2}\% = \frac{25}{2}\%$,

$$T = 18 \text{ months} = \frac{18}{12} = \frac{3}{2} \text{ yr}$$

Now, money received to Shyam

$$\begin{aligned} &= 4096 \left(1 + \frac{25}{2 \times 100} \times \frac{1}{2} \right)^{2 \times 3} \\ &= 4096 \left(1 + \frac{1}{16} \right)^3 = 4096 \left(\frac{17}{16} \right)^3 = 4096 \times \frac{17}{16} \times \frac{17}{16} \times \frac{17}{16} \\ &= 17 \times 17 \times 17 = ₹ 4913 \end{aligned}$$

45. A works twice as fast as B. If B can complete a piece of work independently in 12 days, then what will be the number of days taken by A and B together to finish the work?

- (a) 4 (b) 6 (c) 8 (d) 18

(a) Time taken to complete the work by B = 12 days

∴ A work twice as fast as B

∴ Time taken to complete the work by A = 6 days

Now, one day work of B = $\frac{1}{12}$

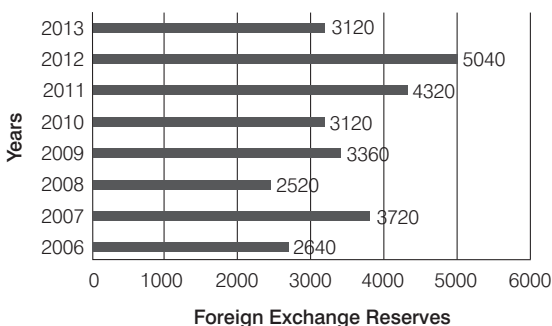
and one day work of A = $\frac{1}{6}$

∴ One day work of (A + B) = $\frac{1}{6} + \frac{1}{12} = \frac{2+1}{12} = \frac{3}{12} = \frac{1}{4}$

Hence, Time taken by A and B together to finish the work = 4 days

Directions (Q. Nos. 46-48) Study the graph carefully to answer these questions.

Foreign Exchange Reserves of a Country (in \$ million)



46. The foreign exchange reserve in 2012 was how many times that in 2009?

- (a) 0.7 (b) 1.2 (c) 1.4 (d) 1.5

(d) Required answer = $\frac{\text{Foreign exchange reserves in 2012}}{\text{Foreign exchange reserves in 2009}}$
 $= \frac{5040}{3360} = \frac{504}{336} = \frac{63}{42} = \frac{3}{2} = 1.5$

Hence, in the year 2012, foreign exchange reserves was 1.5 times in comparison to the year 2009.

47. What was the percentage increase in the foreign reserves in 2012 over 2008?

- (a) 100% (b) 150% (c) 200% (d) 620%

(a) Required percentage increase

$$= \left(\frac{5040 - 2520}{2520} \right) \times 100 = \frac{2520}{2520} \times 100 = 100\%$$

48. The ratio of the number of years, in which the foreign exchange reserves are above the average reserves, to those in which reserves are below the average reserves is

- (a) 2 : 6 (b) 3 : 4
(c) 3 : 5 (d) 1 : 1

(c) Average of foreign exchange reserve

$$\begin{aligned} &= \frac{1}{8} [2640 + 3720 + 2520 + 3360 \\ &\quad + 3120 + 4320 + 5040 + 3120] \\ &= \frac{1}{8} \times 27840 = 3480 \end{aligned}$$

Now, number of years in which the foreign exchange reserves are above the average reserves = 2007, 2011, 2012 = 3 years

and number of years in which the foreign exchange reserves are below the average reserves = 2006, 2008, 2009, 2010, 2013 = 5 years

∴ Required ratio = 3 : 5

49. A well of diameter 3 m is dug 14 m deep. The Earth taken out of it has been spread evenly all around it in the shape of a circular ring of width 4 m to form an embankment. Find the height of the embankment.

- (a) 4.25 m (b) 2.250 m (c) 1.125 m (d) 1.750 m

(d) Let, height of embankment = h m

Given, radius of well = $\frac{3}{2} = 1.5$ m

$$\therefore \frac{4}{3} \times \frac{22}{7} \times [(4)^2 - (1.5)^2] \times h = \frac{22}{7} \times (1.5)^2 \times 14$$

$$\Rightarrow \frac{4}{3} \times (16 - 2.25) \times h = 2.25 \times 14$$

$$\Rightarrow \frac{4}{3} \times 13.75 \times h = 2.25 \times 14$$

$$\Rightarrow h = \frac{2.25 \times 14 \times 3}{4 \times 13.75}$$

$$\Rightarrow h = \frac{225 \times 7 \times 3}{2 \times 1375} \Rightarrow h = \frac{189}{110} = 1.718 \approx 1.75$$

$$\Rightarrow h = 1.75 \text{ m}$$

50. If $x^3 + 1/x^3 = 110$, then find the value of $x + 1/x$.

- (a) 2 (b) 3 (c) 4 (d) 5

(d) Given, $\left(x^3 + \frac{1}{x^3}\right) = 110 \Rightarrow \left(x + \frac{1}{x}\right)\left(x^2 + \frac{1}{x^2} - 1\right) = 110$
 $[\because a^3 + b^3 = (a + b)(a^2 + b^2 - ab)]$
 $\Rightarrow \left(x + \frac{1}{x}\right)\left[\left(x + \frac{1}{x}\right)^2 - 2 - 1\right] = 110$
 $[\because a^2 + b^2 = (a + b)^2 - 2ab]$

$$\Rightarrow \left(x + \frac{1}{x}\right)\left[\left(x + \frac{1}{x}\right)^2 - 3\right] = 110$$

Now, putting $\left(x + \frac{1}{x}\right) = A$

$$\Rightarrow A(A^2 - 3) = 110 \Rightarrow A^3 - 3A = 110 \quad \dots(i)$$

Now, from option (d), putting $A = 5$ in Eq. (i)

$$\Rightarrow (5)^3 - 3 \times 5 = 110 \Rightarrow 125 - 15 = 110 \Rightarrow 110 = 110$$

$$\therefore A = 5 \therefore \left(x + \frac{1}{x}\right) = 5$$

Part C English Language

Directions (Q.Nos. 51 and 52) Choose the word, which is **most similar** in meaning to the given words.

51. Dishevelled

- (a) Tidy (b) Clean (c) Neat (d) Untidy

(d) 'Dishevelled' means untidy. So, option (d) is correct.

52. Venerate

- (a) Despise (b) Disobey (c) Disregard (d) Revere

(d) 'Venerate' means to show a lot of respect. So, option (d) revere is correct. All other options mean to dislike or have no respect.

Directions (Q.Nos. 53 and 54) Choose the word, which is **most opposite** in meaning to the given words.

53. Congenial

- (a) Accord (b) Snug
(c) Engaging (d) Unpleasant

(d) 'Congenial' means pleasant or welcoming. So, option (d) unpleasant is correct.

54. Abjure

- (a) Renounce (b) Relinquish (c) Abnegate (d) Acquire

(d) 'Abjure' means to promise to reject a belief or a way of behaving. So, option (d) acquire is correct. All other options mean to reject, deny or give up.

Directions (Q.Nos. 55-57) In the following questions, out of the four alternatives, choose the one which can be substituted for the given words/sentence.

55. Highly skilled

- (a) Consummate (b) Inveterate
(c) Notorious (d) Maladroit

(a)

56. Identification with the feelings of another

- (a) Sympathy (b) Empathy
(c) Apathy (d) Compassion

(b) 'Empathy' means the ability to understand and share the feelings of another.

57. Insatiable desire for wealth

- (a) Selfish (b) Avarice (c) Egoist (d) Generosity

(b) 'Avarice' means extreme or insatiable desire for wealth.

Directions (Q.Nos. 58-60) In these questions, four alternatives are given for the idiom/phrase given in **bold**. Choose the alternative which best expresses the meaning of the idiom/ phrase.

58. Cut the mustard

- (a) To get under expectations (b) To score average
(c) To perform well (d) To underperform

(c) The idiom 'cut the mustard' means to perform well and succeed.

59. A chip off the old block

- (a) Reminds them of one's father
(b) To remind one's sin
(c) Reminds them of one's son
(d) Reminds of previous memories

(a) The idiom 'a chip off the old block' means someone who closely resembles their parent in character or appearance.

60. To fish in troubled waters

- (a) To indulge in evil conspiracies
(b) To make a profit out of disturbance
(c) To aggravate the situation
(d) To make the most of bad bargain

(b) The idiom 'to fish in troubled waters' means to take advantage or to make a profit out of disturbance.

Directions (Q.Nos. 61 and 62) In these questions, a part of sentence is underlined. Below are given alternatives to the underlined part, which may improve the sentence. Choose the correct alternative. In case to improvement is needed, mark 'No improvement' as your answer.

61. What you have been doing since the workshop last month?

- (a) have you done (b) you have done
(c) have you been doing (d) No improvement

(c) The helping verb (have) will come before the subject (you) in case of an interrogative sentence.

8 Staff Selection Commission, Combined Graduate Level (TIER-1) Exam

62. Corruption is the most serious problem in India.

- (a) the more serious (b) very serious
(c) serious (d) No improvement
(d)

Directions (Q.Nos. 63-66) Each of the following sentences has a blank space and four words given after the sentence. Select whichever word you consider most appropriate for the blank space.

63. Sid and Harsh are unable to complete the task.

- (a) neither (b) either
(c) each (d) both
(d)

64. The examinee could guess the answer correctly.

- (a) at (b) about
(c) through (d) to
(a)

65. Be and always look to the comfort of others.

- (a) considerate (b) cautious
(c) considerable (d) consider
(a)

66. As usual, a lot of people were in the king's darbar.

- (a) their (b) possess
(c) past (d) present
(d)

67. In this question, four words are given out of which one is incorrectly spelt. Find the incorrectly spelt word.

- (a) Ommineous (b) Omineous
(c) Ominous (d) Omenous

(c) 'Ominous' is the correctly spelt word. The word suggests that something bad is going to happen in the future.

Directions (Q.Nos. 68-71) In the following questions, a sentence has been given in parts, out of which a part contains an error. The part with the error is your answer. In case there is no error, then your answer is 'No error'.

68. He ought not/have done such/a filthy thing.

- (a) He ought not (b) have done such
(c) a filthy thing (d) No error

(a) Part (a) has error. The correct expression should be 'He ought not to'.

69. The reason for/his failure is because/he did not work hard.

- (a) The reason for (b) his failure is because
(c) he did not work hard (d) No error

(b) Part (b) has error. Using the word 'because' with the word 'reason' is not required. It should be 'The reason for his failure is that he did not work hard'.

70. I have reached/the office before/the rain started.

- (a) I have reached (b) the office before
(c) the rain started (d) No error

(a) Part (a) has error. The sentence is in Past Perfect tense. It should be 'I had reached the office before the rain started'.

71. A large/consignment of books/ are expected.

- (a) A large (b) consignment of books
(c) are expected (d) No error

(c) Part (c) has error. The subject is singular, therefore the verb must be singular. It should be 'A large consignment of books is expected'.

Directions (Q.Nos. 72-75) Read the following passage carefully and answer the questions given below in the context of the passage.

Every profession or trade, every art and every science has its technical vocabulary, the function of which is partly to designate things or processes which have no names in ordinary English and partly to secure greater exactness in nomenclature. Such special dialects or jargons necessary in technical discussion of any kind. Being universally understood by the devotees of the particular science or art, they have the precision of a mathematical formula. Besides, they save time, for it is much more economical to name a process than to describe it. Thousands of these technical terms are very properly included in every large dictionary, yet, as a whole, they are rather on the outskirts of the English language than actually within its borders. Different occupations, however, differ widely in the character of their special vocabularies. In trades and handicrafts and other vocations like farming and fishing that have occupied great numbers of men from remote times, the technical vocabulary is very old. An average man now uses these in his own vocabulary. The special dialects of law, medicine divinity and philosophy have become familiar to cultivated persons.

72. Special words used in technical discussion

- (a) may become part of common speech
(b) never last long
(c) should resemble mathematical formula
(d) should be confined to scientific fields
(a)

73. The writer of this article is

- (a) a scientist (b) a politician
(c) a linguist (d) a businessman
(c)

74. This passage is primarily concerned with

- (a) various occupations and professions
(b) technical terminology
(c) scientific undertakings
(d) a new language
(b)

75. It is true that

- (a) various occupations and professions often interchange words.
(b) there is always a non-technical word that may be substituted for the technical word.
(c) the average man often uses in his own vocabulary what was once technical language not meant for him.
(d) everyone is interested in scientific findings.
(c)

Part D General Awareness

- 76.** Which of the following is known as the Manchester of South India?
(a) Kochi (b) Vishakapatnam
(c) Coimbatore (d) Bengaluru
- (c) Coimbatore is a large centre for the textile industry, textile machinery and electric motors and there are food, chemical, cement, and film enterprises. It is the second most industrialised region of Tamil Nadu State and it is also a market for tea, cotton, cardamom, cinchona and teak. It is often known as Manchester of South India.
- 77.** Who was the flag bearer of India at Rio Olympics 2016?
(a) PV Sindhu (b) Jwala Gutta
(c) Yogeshwar Dutt (d) Abhinav Bindra
- (d) Abhinav Bindra was the flag bearer of India contingent at the 31st Olympics at Rio 2016. Bindra was selected ahead of the likes of Yogeshwar Dutt, Vijender Singh and Leander Paes. Athlete Purma Banerjee was the first Indian Olympian to become the flag bearer for the Indian contingent at the 1920 Olympic in Antwerp.
- 78.** Which of the following is the first cricketer to score 1000 runs in an innings?
(a) Sachin Tendulkar (b) Vinod Kamble
(c) Pranav Dhanawade (d) Virat Kohli
- (c) Pranav Dhanawade become first cricketer to score 1000 runs in an inning. Cricket got its first 1000-run man on January 5, 2016, when Mumbai's 15 year old school cricketer became the only batsman in the history of the game to achieve the landmark in a single knock.
- 79.** Which of the following is the largest irrigation plant in India?
(a) Buckingham Canal (b) Indira Gandhi Canal
(c) Upper Ganges Canal (d) Tajewala Canal
- (b) Indira Gandhi canal project is the largest irrigation plant in India. It starts from the Harike Barrage at Firozpur, a few kilometres below the confluence of the Satluj and Beas river in the Indian State of Punjab.
- 80.** The soil of Kerala is rich in which of the following soils?
(a) Alluvial soil (b) Laterite soil
(c) Sandy soil (d) Loamy soil
- (b) Laterite soil of Kerala are localised in occurrence and are found in southern and western part. These soils occur in catenary sequence along with laterites. The soils have brown colour, which has been attributed to the presence of hematite or anhydrous ferric oxides. It cover about 65% of the total area of Kerala.
- 81.** Which of the process is known as nitrification?
(a) Reaction of nitrogen monoxide with oxygen to form nitric acid
(b) Reaction of nitrogen dioxide with water to form nitric acid
(c) Conversion of ammonia to nitrites
(d) Conversion of nitrite to nitric oxide
- (c) Nitrification is the biological oxidation of ammonia or ammonium to nitrate. The oxidation of ammonia into nitrite is performed by two groups of organisms — Ammonia Oxidising Bacteria (AOB) and Ammonia Oxidising Archaea (AOA).
- 82.** Asbestos is found maximum in which of the following countries?
(a) Australia (b) Canada (c) Africa (d) Russia
- (d) Russia is the world largest producer of Asbestos. Russia produce around 1.1 million metric tonnes, annually. It supply 55% of the world Asbestos demand in the world. Russia produces more that whole world combined production of Asbestos.
- 83.** Which country announces the imposition of a three-month State emergency after failed coup?
(a) Turkey (b) Syria (c) Sudan (d) Iran
- (a) Turkey's President Recep Tayyip Erdogan declared three month State of emergency following a botched coup attempt. According to President, this measure will counter threats to Turkish democracy.
- 84.** Beighton Cup is related to which of the following sports?
(a) Football (b) Hockey (c) Badminton (d) Cricket
- (b) Beighton Cup is one of the oldest field hockey tournament running till date. Instituted in 1895, it is organised by Bengal Hockey Association. The Beighton Cup was presented by TD Beighton, legal remembrances of the government of Bengal.
- 85.** Sun temple is situated in which of the following States?
(a) Odisha (b) Gujarat (c) Karnataka (d) Tamil Nadu
- (a) Sun temple is situated at Konark in Odisha India. It is believed that the temple was built by King Narasimhadeva I of eastern Ganga dynasty in 1255 CE. The temple is a UNESCO world heritage site and has also featured on various list of seven wonders of India.
- 86.** The growth of bacteria is measured by
(a) hemacytometer (b) spectrophotometer
(c) calorimeter (d) auxanometer
- (b) The measurement of a exponential bacterial growth is done with the use of the spectrophotometer. A spectro photo meter is used to determine turbidity by measuring the amount of light that passed through suspension of cells.
- 87.** The sideways erosion, which widens the river valley, called
(a) lateral corrosion (b) vertical corrosion
(c) side corrosion (d) mean corrosion
- (a) The middle course of river has more energy and volume then in the upper course. The gradient is more gentle and lateral erosion has widened the channel. The river valley also become deeper.

10 Staff Selection Commission, Combined Graduate Level (TIER-1) Exam

88. The Constitution

- (a) is silent on the President's re-election to the office
- (b) allows re-election of a person to the President's post
- (c) restricts a person to remain President for only two terms
- (d) has been amended to allow a person only one term as President

(b) The Article-57 of Indian Constitution allows re-election of a person to the President's post. This provision was not there in original constitution. It is added by an amendment.

89. Smooth muscles are likely to be found in

- (a) muscles of legs
- (b) muscles of arms
- (c) stomach
- (d) heart

(c) Smooth muscles are an involuntary non-striated muscle. Most smooth muscle is of the single unit variety, that is either the whole muscle contracts or the whole muscle relaxes. Single unit smooth muscle, is most common in lines blood vessels, the urinary tract and the digestive tract or stomach.

90. Synagogue is the place of worship of

- (a) Zoroastrianism
- (b) Taoism
- (c) Judaism
- (d) Shintoism

(c) Synagogue is a Jewish house of prayer. Synagogues have a large hall for prayer and are consecrated spaces used for the purpose of prayer, Torah reading, study and assembly. However a synagogue is not necessary for worship.

91. The civilian airport of highest altitude is in

- (a) Tibet
- (b) Nepal
- (c) India
- (d) China

(a) World highest civilian airport is in Tibet, standing at 4411 m above sea level. It is already half the height of a plane's average cruising altitude. It is in a restive and remote Tibetan region of South-Western Sichuan province.

92. The branch of biology, which deals with extinct organisms, is called

- (a) Palynology
- (b) Phylogeny
- (c) Palaeobotany
- (d) Palaentology

(d) Palaentology is the scientific study of life that existed prior to the start of the Holocene. It includes the study of fossils to determine organisms' evolution and interactions with each other and their environments.

93. The least distance of distinct vision is

- (a) 35 cm
- (b) 25 cm
- (c) 45 cm
- (d) 15 cm

(b) Least distance of distinct vision for a normal human being is 25 cm, however, it varies with age. For infants, the least distance of distinct vision is about 5 to 8 cm. As the person grows old, his culinary muscles responsible for adjusting the eye lens get weakened.

94. When will demand become a grant?

- (a) When a demand is proposed.
- (b) After the discussion on demand is over.
- (c) After the demand is granted.
- (d) When the budget session is closed.

(c) Demand for grants is the form in which estimates of expenditure from the consolidated fund, included in the annual financial statement and required to be voted in the Lok Sabha. A demand become a grant after the demand is granted.

95. Summer rains in Australia broadly decreases from

- (a) East to West
- (b) West to East
- (c) North to South
- (d) South to North

(c) More than 80% of the continent has an annual rainfall of less than 600 mm. The tropical areas of northern Australia have a wet summer because of the monsoon and its intensity decreases towards South.

96. The blue revolution is related with

- (a) fish production
- (b) foodgrain production
- (c) oilseed production
- (d) milk production

(a) The term 'blue revolution' refers to the remarkable emergence of aquaculture. Aquaculture refers to all forms of active culturing of aquatic animals and plants, occurring in marine, brackish or fresh water.

97. Which is post-harvest folk dance in Assam?

- (a) Ankia Nat
- (b) Bihu
- (c) Raut Nacha
- (d) Namgen

(b) Bihu is the post-harvest folk dance in Assam. The Bihu is a group dance in which males and females dance together but maintain different gender roles. The dance is performed in accompaniment with traditional Bihu music.

98. The substrate of photorespiration is

- (a) Fructose
- (b) Pyruvic acid
- (c) Glycolate
- (d) Glucose

(c) The oxygen sensitivity of glycolate- stimulated CO₂ production was found to be compatible with the proposal that glycolate is a substrate of photo respiration.

99. The UNIX operating system is suitable for

- (a) multi user
- (b) real-time processing
- (c) distributed processing
- (d) single user

(a) UNIX is a family of multitasking, multiuser computer operating system that derive from the original AT&T Unix. developed in the 1970s at the Bell Labs research centre.

100. Sink hole is a phenomenon of

- (a) plain
- (b) desert
- (c) tundra
- (d) karst

(d) A sink hole is a depression or hole in the ground caused by some form of collapse of the surface layer. Some are caused by karst processes. Sink holes vary in size from 1 m to 600 m both in diameter and depth.