MAT 2002

Language Comprehension

Instructions [1 - 6]

Read the following passage carefully to answer these questions based on what is stated or implied there in :

Passage I :

The public sector is at the cross roads ever since the launch of economic reforms programme in India. The pendulum has been swinging between survival and surrender. It is the result of a confluence of several factors : a shift in global economic environment, the emergence of the market economy and myths surrounding the performance of the public sector. So virulent has been the onslaught that it is becoming axiomatic that by the very concept, the public sector is inefficient and resource waster whereas private enterprise is resource efficient.

The reform programme in India commenced with the policy of restricting of the public sector supported by greater public participation. With the passage of time, the process of liberalisation has shifted to privatisation in a disguised form couched asstrategic role, in the wake of the recent hot pursuit of the wholesale privatisation programme a lively ana poignant debate has emerged. It provides a golden opportunity to introspect and revisit the issue.

At the very outset, it must be made clear that in the worldwide liberalised economic environment and very high stake of the state in most public sector undertakings disinvestment policy seeks to differentiate closed or bankrupt enterprise from the private sector — a fact deliberately over looked by the champions of privatisation. These undertakings need immediate attention. They are an unnecessary drain on the public exchequer. A high priority area for the disinvestment programme ought to be these enterprises but under one or the other argument these remain unattended, may beit involves a tough task.. If these cannot be sold lock, stock and barrel asset stripping is the only option. Obviously the government cannot realise good price from these assets but their disposal will help stop the drain. If the assets are depreciated or became obsolete, then there is no point in holding on to them indefinhely and take to softer option of selling the vibrant and highly profit-making organisations to reduce the budgetary deficit. Non performers exist both in public and private sectors. Why condemn the public sector as a whole? Better option will be closure or privatisation of loss-making and non-viable units supporting PSU's which could be turned around and become healthy and viable and providing autonomyto the boards of PSU's which are performing well and have potential to be globally competitive be welcome. With public participation in the PSU's there will be a good dose of accountability in the system. What needs to be reviewed are some basic issues : the priorities allocated to the enterprises selected for disinvestment, a comprehensive road map delineating the route, the modes and modalities timing andits consequences. These basic issues require greater discussion and participative decisionmaking. In any event, the disinvestment programme in respect of the closed and non revivable units is a mustif the drain of further resourcesis to be prevented.

Let it be understood that PSU's are a big repository of value andit will take quite some time for privatisation programmeto materialise despite the desire to expedite the process. Until then if a vacuum emerges attended by uncertainty it will do a great harm to the investments which were made with such great dedication although desired now.
The government has withdrawn a budgetary support over the last decade. If some support is extendedit is largely directed to closed or losing enterprise which have no fortune.

1. **The basic issue(s) requiring greater discussion and participative decision making regarding the disinvestment programme is/are**

A The priorities allocated to the enterprises selected for disinvestment

B Acomprehensive road-map delineating the route

C The modes and modalities, timings and its consequence

D All of these

Answer: D

2. **"The public sector is inefficient and resources waster whereas private enterprise is resource-efficient". This opinion is due to**

A A shift in global economic environment

B The emergence of market economy

C The myths surrounding the performance of the public sector

D All of these

Answer: D

3. **The reform programme in India, started with the policy of restructuring of PSUs, has got shifted to**

A Liberalisation

B Privatisation

C Globalisation

D None of these

Answer: B

4. **What were made with great dedication earlier, but now derided ?**

A Disinvestment

B Investments in PSUs

C Wholesale privatisation programme

D Strategic plans

Answer: B

5. **According to the author, non-performers exist in.**

A Government

B Public sector

C Private sector

D Public and private sectors

Answer: D

6. **An appropriatetitle to the passage will be**

A "Disinvestment of PSUs"

B "Economic Reforms Programmesin India”

C "liberalised Economic Environment"

D "Non-performing Assets”

Answer: A

Instructions [7 - 10]

Read the following passage carefully to answer these questions based on what is stated or implied therein :

Passage II :

Of the many aspects of public administration, the ethical aspect is perhaps the most important but the least codified. While administrative rules and procedures have been codified in various public documents and manuals there is no manual for the ethics of public servants.

While organisational behaviour analyses the factors which influence the behaviour of individuals in an organisation, ethics refers to those norms and standards which behaviour of the people in an organisation must conform to. While behaviour analysis deals with factual aspects, ethics relates to the normative aspects of administration. The normative aspects are of the greatest significance. Just as for an individual if character is lost, everything is lost, so also for an administration if the ethics is lost, everything is lost. Neither efficiency nor loyalty could be substitute for high ethical standards. In India, though there is no etnical code for public administrators, there are what are called, the Government Servants Conduct Rules. These rules lay down what constitutes misconduct for the public servants. It is apparently implied that such misconduct, which is not permitted, is also unethical conduct.

7. **As per the passage, organisational behaviour is**

A Same as ethics in organisations

B Different from ethics in organisations

C Human behaviour in organisations including ethics

D None of these

Answer: B

8. **Ethics is to an administration, what character is for**

A An administrator

B An official

C An individual

D None of these

Answer: C

9. **Government Servants' Conduct Rules are meant for**

A Guiding the ethical conduct of government servants

B Guiding what constitutes misconductfor public

C Guiding what constitutes misconduct for government servants

D None of these

Answer: C

10. **The underlined word 'manual' in the context of the given passage means**

A Hand operated

B Physical

C Guide book

D None of these

Answer: C

Instructions [11 - 13]

Choose the word that does NOT match with the two given words.

11. **Wonderful, Fabulous**

A Superb

B Superlative

C Great

D Splendid

Answer: C

12. **Inordinate, Huge**

A Excessive

B Considerable

C Insatiable

D Enormous

Answer: C

13. **Laconic, Succinct**

A Terse

B Brief

C Concise

D Abrupt

Answer: D

Instructions [14 - 16]

Choose the appropriate set of words that makes the sentence most meaningful.

14. **The ..... successfully repelled every ..... on the city.**

A Defenders, Comment

B Citizens, Onslaught

C Thieves, Robbery

D Judge, Criticism

Answer: B

15. **He was ..... very clever, but he ..... performed excellently.**

A Certainly, Obviously

B Never, Also

C Not, Always

D Rarely, Seldom

Answer: C

16. **A ..... analysis of these substances will show that they differ .....**

A Random, Minutely

B Detailed, Essentially

C Careful, Completely

D Final, Structurally

Answer: B

Instructions [17 - 19]

In each of those questions, one sentenceis split and written in four portions. Each sentence is complete, but contains an error. Choosethe portion of the sentence with the error.

17. **Refer to above.**

A A very miserly

B farmer who lived

C with his wife

D in the Jamaican islands

Answer: B

18. **Refer to above.**

A Mrs. Singh was

B emphasising

C on the importance

D of coming for class

Answer: C

19. **Refer to above.**

A The children

B in front

C has no

D shoes on

Answer: C

Instructions [20 - 22]

In these questions, a word is given with its meaning. Choosethe alternative that does NOT match with the given meaning.

20. **Obtuse : unintelligent**

A Developmentally disabled person

B An illogical argument

C Acareless calculation

D An unreasonable demand

Answer: B

21. **Querulous : peevish**

A Achild telling tales

B Aperson redressing at a consumer court

C An elite grumbling about a shabby reception

D Aman unhappywith the state's policies

Answer: A

22. **Synchronised : in harmony**

A The human body

B Achoreographer

C A live orchestra

D A flock of birds

Answer: C

Instructions [23 - 25]

Choose a word or phrase similar in meaning to the capitalised word.

23. **IMPOSTURE**

A Claim

B Status

C Destruction

D Deception

Answer: D

24. **PROBOSCIS**

A Search

B Probe

C Snout

D Prove

Answer: C

25. **PARLEY**

A Discuss

B Deliver

C Sweeten

D Race

Answer: A

Instructions [26 - 28]

Choose the most appropriate preposition to complete the sentence.

26. **The country is ushering ..... a new era.**

A into

B in

C of

D over

Answer: B

27. **He is a traitor ..... the country.**

A for

B to

C in

D of

Answer: B

28. **The event passed ..... without any untoward incident.**

A of

B on

C off

D away

Answer: C

Instructions [29 - 31]

Choose from the given alternative words, the one that is opposite in meaning to the word given.

29. **Predilection**

A Antipathy

B Ignorance

C Dissonance

D Disharmony

Answer: A

30. **Docile**

A Unmanageable

B Dutiful

C Submissive

D Painful

Answer: A

31. **Equivocal**

A Mistaken

B Quaint

C Clear

D Universal

Answer: C

Instructions [32 - 34]

In each of these questions, a related pair of words is followed by four pairs of words. Select the one which best expresses a relationship similar to that expressed in the original pair.

32. **OVATION : APPLAUSE ::**

A Memory: oblivion

B Route : defeat

C Grief : loss

D Triumph : failure

Answer: C

33. **TUESDAY : THURSDAY ::**

A Day : night

B Near : adjacent

C Winter : spring

D February : April

Answer: D

34. **WIND : GALE ::**

A Disaster : calamity

B Storm : sea

C Love : passion

D Disgust: infatuation

Answer: C

Instructions [35 - 37]

In each of these questions, a sentence has four words or phrases that are underlined. Choose that word or phrase which would not be appropriate in standard written English.

35. **He gave me a pass (A) / so (B) / that I can (C) / visit (D) the exhibition.**

A A

B B

C C

D D

Answer: C

36. **The new (A)/innovations (B)/ in the (C)/ department were (D) successful.**

A A

B B

C C

D D

Answer: A

37. **You (A) / must carry (B) / your luggages (C) / yourself. (D)**

A A

B B

C C

D D

Answer: C

Instructions [38 - 40]

In each of these questions, a disarranged sentence is given. The parts of each sentence are marked as. P, Q, R and S. Choose the arrangement from the alternatives (a), (b), (c) and (d) which will make the correct sentence.

38. **P: checked regularly**
Q: you should have
R: blood pressure
S: your

A RSPQ

B RQSP

C QSRP

D RSQP

Answer: C

39. **P: she**
Q: his phone number
R: didn't know
S: she claimed

A SPRQ

B QRPS

C RSPQ

D RPQS

Answer: A

40. **P: Indian**
Q: earn as much
R: working women
S: asmen

A QSRP

B PRSQ

C SRPQ

D PRQS

Answer: D

Mathematical Skills

41. **In a group of 15 women, 7 have nose studs, 8 have ear rings and 3 have neither. How many of these have both nose studs and ear rings?**

A 0

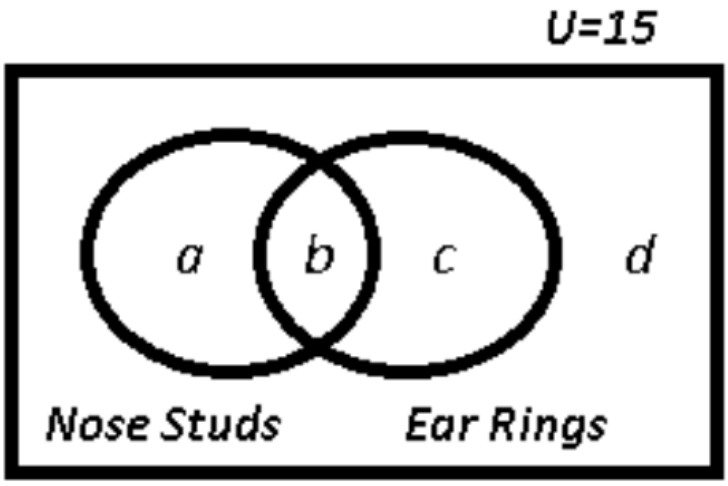
B 2

C 3

D 7

Answer: C

Explanation:



Let number of women that have both be b

Then, according to ques, $a + b = 7$ and $b + c = 8$ and $d = 3$

Also, $a + b + c + d = 15$

=> $a + b + c = 12$ ----------(2)

Substituting value of $(a + b)$ in equation 2, => $c = 12 - 7 = 5$

and thus $b = 3$

∴ Number of women having both nose studs and ear rings = **3**

=> Ans - (C)

42. **Shatabadi Express has a capacity of 500 seats of which 10% are in the Executive Class and the rest being Chair Cars. During one journey, the train was booked to 85% of its capacity. If Executive Class was booked to 96% of its capacity, then how many Chair Car seats were empty during that journey?**

A 75

B 73

C 71

D None of these

Answer: B

Explanation:
Of the 500 seats, number of seats in executive class = 50 and chair cars = 450

Now, on the given journey, total seats booked = $\frac{85}{100} \times 500 = 425$

Seats booked in executive class = $\frac{96}{100} \times 50 = 48$

=> Seats occupied in chair car = $425 - 48 = 377$

∴Number of empty chair car seats = $450 - 377 = 73$

=> Ans - (B)

43. **A person pays Rs. 975 in monthly instalments, each monthly instalment being less than the former by Rs. 5. The amount of the first instalment is Rs. 100. In what time, will the entire amount be paid?**

A 12 months

B 26 months

C 15 months

D 18 months

Answer: C

Explanation:
The order of installments in Rs. is 100, 95, 90, 85 and so on.

The above series forms an A.P. with first term = $a = 100$ and common difference = $d = -5$ and total sum = Rs. 975. Let in n months, total amount is paid.

Sum of an A.P. = $\frac{n}{2}[2a + (n-1)d]$

=> $\frac{n}{2}[2 \times 100 + (n-1)(-5)] = 975$

=> $\frac{n}{2} \times [200 - 5n + 5] = 975$

=> $205n - 5n^2 = 1950$

=> $n^2 - 41n + 390 = 0$

=> $(n-15)(n-26) = 0$

=> $n = 15, 26$

Now, if $n = 26$, number of installments will become negative (after 20 installments), hence it is not possible.

∴ Total installments = **15** months

=> Ans - (C)

44. **p% of a number P is q% more than r% of the number R. If the difference between P and R is r% of R and if the sum of P and is 210, then which of the following statements is always true ?**

A P = 110; R = 100

B P = 220; R = 200

C P = 3300; R = 3000

D All of the above

Answer: A

45. **A vessel is fully filled with a special liquid. Four litres of liquid is drawn out of this vessel and is replaced with water. If the ratio of the special liquid to the water becomes 1 : 2, then what is the capacity of the vessel?**

A 6 litres

B 10 litres

C 12 litres

D 14 litres

Answer: A

Explanation:
Let capacity of vessel be x litres

Now, special liquid in the vessel = $(x-4)$ litres and water = 4 litres

=> Ratio = $\frac{x-4}{4} = \frac{1}{2}$

=> $x - 4 = 2$

=> $x = 6$

∴ Capacity of vessel = **6 litres**

46. **The weight of a solid cone having diameter 14 cm and vertical height 51 cm is ....., if the material of solid cone weighs 10 grams per cubic cm.**

A 16.18 kg

B 17.25 kg

C 26.16 kg

D 71.40 kg

Answer: C

Explanation:
Radius of cone = 7 cm and height of cone = 51 cm

=> Volume of cone = $\frac{1}{3}\pi r^2 h$

= $\frac{1}{3} \times \frac{22}{7} \times 49 \times 51 = 2618\ cm^3$

$\therefore$ Weight of cone = $2618 \times 10 = 26180$ gm = **26.18 kg**

=> Ans - (C)

47. **A box contains 10 balls out of which 3 are red and the rest are blue. In how many ways can a random sample of 6 balls be drawn from the bag so that at the most 2 red balls are included in the sample and no sample has all the 6 balls of the same colour?**

A 105

B 168

C 189

D 120

Answer: B

Explanation:
Six balls can be selected in the following ways : (1 red ball and 5 blue balls) or (2 red balls and 4 blue balls)

Since, all the six balls cannot be blue.

=> Total number of ways = $(C_1^3 \times C_5^7) + (C_2^3 \times C_4^7)$

= $(3 \times 21) + (3 \times 35)$

= $63 + 105 = 168$

=> Ans - (B)

48. **'A' wants to secure an annual income of Rs. 1500 by investing in 15% debentures of face value Rs. 100 each and available for Rs. 104 each. If the brokerage is 1%, then the sum of money he should invest is**

A Rs. 19642

B Rs. 10784

C Rs. 10504

D Rs. 15000

Answer: C

Explanation:
Let x be the face value of debentures.

Then, 15% of x = 1500

=> $x = 10,000$

=> Available value = $\frac{104}{100} \times 10,000 = 10,400$

Brokerage = 1% of 10400 = 104

$\therefore$ Total money invested = $10400 + 104 = Rs.\ 10504$

=> Ans - (C)

49. **A cycle agent buys 30 bicycles, of which 8 are first grade and the rest are second grade, for Rs. 3150. Find at what price he must sell the first grade bicycles so that if he sells the second grade bicycles at three quarters of the price, he may make a profit of 40% on his outlay?**

A Rs. 200

B Rs. 240

C Rs. 180

D Rs. 210

Answer: C

Explanation:

Let selling price of 1st grade cycle be Rs. $4x$ and of 2nd grade cycle be Rs. $3x$

Total selling price = $\frac{140}{100} \times 3150 = Rs.\ 4410$

According to ques,

=> $(8 \times 4x) + (22 \times 3x) = 4410$

=> $32x + 66x = 98x = 4410$

=> $x = \frac{4410}{98} = 45$

$\therefore$ Selling Price of 1st grade cycles = $4 \times 45 = Rs.\ 180$

=> Ans - (C)

50. **If** $\log_x a,\ a^{\frac{x}{2}} and\ \log_b x$ **are in GP then** x **is**

A $\log_a(\log_b a)$

B $\log_a(\log_e\ a) + \log_a(\log_e\ b)$

C -$\log_a(\log_a\ b)$

D -$\log_a(\log_e\ b) + \log_a(\log_e\ a)$

Answer: A

Explanation:

For three terms A, B, C to be in GP, it must follow : $B^2 = AC$

Now, $\log_x a, a^{\frac{x}{2}}$ and $\log_b x$ are in GP

=> $(a^{\frac{x}{2}})^2 = (\frac{\log a}{\log x}) \times (\frac{\log x}{\log b})$

=> $a^x = \frac{\log a}{\log b}$

=> $a^x = \log_b a$

=> $x = \log_a(\log_b a)$

=> Ans - (A)

51. **The angles of elevation of an artificial satellite measured from two earth stations are $30°$ and $40°$ respectively, if the distance between the earth stations is 4000 km, then the height of the satellite is**

A 2000 km

B 6000 km

C 3464 km

D 2828 km

Answer: C

52. **By selling 33 metres of cloth, a shopkeeper gains the price of 11 metres of cloth. His gain percent is**

A 7%

B 50%

C 20%

D 22%

Answer: B

Explanation:

Let CP of 1 m of cloth = Rs. x and SP = Rs. y

=> Profit on selling 1 m cloth = Rs. $(y - x)$

According to ques,

=> $33(y - x) = 11y$

=> $3y - 3x = y$

=> $2y = 3x$

=> $\frac{x}{y} = \frac{2}{3}$

Let $x = 2$ and $y = 3$

$\therefore$ Profit % = $\frac{(y-x)}{x} \times 100$

= $\frac{(3-2)}{2} \times 100 = 50\%$

=> Ans - (B)

53. **A cricket team of 11 players is to be formed from 20 players including 6 bowlers and 3 wicket keepers. The number of ways in which a team can be formed having exactly 4 bowlers and 2 wicket keepers is**

A 20790

B 6930

C 10790

D 360

Answer: A

Explanation:
There are 6 bowlers, 3 wicket keepers and 11 batsman in all. The number of ways in which a team of 4 bowlers, 2 wicket keepers and 5 batsman can be chosen

= $C_4^6 \times C_2^3 \times C_5^{11}$

= $\binom{6\times5}{1\times2} \times \binom{3\times2}{1\times2} \times \binom{11\times10\times9\times8\times7}{1\times2\times3\times4\times5}$

= $15 \times 3 \times 462 = 20790$

=> Ans - (A)

54. **Sanjay borrowed a certain sum from Anil at a certain rate of simple interest for 2 years. He lent this sum to Ram at the same rate of interest compounded annually for the same period. At the end of two years, he received Rs. 4200 as compound interest but paid Rs. 4000 only as simple interest. Find the rate of interest.**

A 15%

B 20%

C 35%

D 10%

Answer: D

Explanation:
Let rate of interest be $r\%$. Let the amount that Sanjay borrowed be Rs. $100x$ and time period = 2 years

Simple Interest = $\frac{P\times r\times t}{100}$

=> $\frac{100x\times r\times 2}{100} = 4000$

=> $rx = 2,000$ ----------(i)

Also, difference between S.I. and C.I. for 2 years = $\frac{Pr^2}{100^2}$

=> $\frac{100x \times r^2}{100^2} = 200$

=> $r^2x = 20,000$ ----------(ii)

Dividing equation (ii) by (i), => $r = 10$

∴ Rate of interest = **10%**

=> Ans - (D)

55. **A man in a train notices that he can count 21 telephone posts in one minute. If they are known to be 50 metres apart, then at what speed is the train travelling?**

A 57 km/h

B 60 km/h

C 63 km/h

D 55 km/h

Answer: B

Explanation:
Distance between 1st and 21st post = $(21 - 1) \times 50 = 1000$ m = 1 km

Thus, the train travels 1 km in 1 minute.

=> Speed of train, i.e. distance travelled in 60 minutes = $1 \times 60 = 60$ km/hr

=> Ans - (B)

56. **A race course is 400 metres long. A and B run a race and A wins by 5 metres. B and C run over the same course and B wins by 4 metres. C and D run over it and D wins by 16 metres. If Aand D run over it, then who would win and by how much?**

A A, by 8.4 metres

B D, by 8.4 metres

C D, by 7.2 metres

D A, by 7.2 metres

Answer: C

57. **A track is in the form of a ring whose inner circumference is 352 m and the outer circumference is 396 m. The width of the track is**

A 44 m

B 14 m

C 22 m

D 7 m

Answer: D

Explanation:

Width of the track is the difference between the radius of outer circle and inner circle = $R - r$

Inner circumference = $2\pi r = 352$

=> $2 \times \frac{22}{7} \times r = 352$

=> $r = 56$ m

Similarly, $2\pi R = 396$

=> $R = 63$ m

$\therefore$ Width of the track = $63 - 56 = 7$ m

=> Ans - (D)

58. **At a dinner party, every two guests used a dish of rice between them. Every three guests used a dish of daal and every four used a dish of meat between them. There were altogether 65 dishes. How many guests were present?**

A 75

B 59

C 60

D 65

Answer: C

Explanation:

Let the total number of guests be x

Number of rice bowls = $\frac{x}{2}$

Number of bowls of daal = $\frac{x}{3}$

Number of bowls of meat = $\frac{x}{4}$

=> $\frac{x}{2} + \frac{x}{3} + \frac{x}{4} = 65$

=> $\frac{6x+4x+3x}{12} = 65$

=> $\frac{13x}{12} = 65$

=> $x = 5 \times 12 = 60$

$\therefore$ **60** guests were present.

=> Ans - (C)

59. **In an examination paper there are two groups, each containing 4 questions. A candidate is required to attempt 5 questions but not more than 3 questions from any group. In how many ways can 5 questions be selected?**

A 24

B 48

C 96

D None of these

Answer: B

Explanation:
5 questions can be selected in the following ways : (2 question from first group and 3 question from second group) or (3 question from first group and 2 question from second group)

=> Number of ways = $(C_2^4 \times C_3^4) + (C_3^4 \times C_2^4)$

= $24 + 24 = 48$

=> Ans - (B)

60. **In the first 10 overs of a cricket game, the run rate was only 3.2. What should be the run rate in the remaining 40 overs to reach the target of 282 runs?**

A 6.25

B 6.50

C 6.75

D 7.00

Answer: A

Explanation:
Runs scored in first 10 overs = $3.2 \times 10 = 32$

Runs required = $282 - 32 = 250$

> Run rate required to score 250 runs in 40 overs = $\frac{250}{40} = 6.25$

=> Ans - (A)

61. **The average (arithmetic mean) of x and y is 40. If z = 10, then what is the average of x, y and z ?**

A $16\frac{2}{3}$

B 30

C 25

D $17(\frac{1}{2})$

Answer: B

Explanation:
Arithmetic mean of x and y = 40

=> $x + y = 80$ ---------(i) and $z = 10$

Average of x, y and z = $\frac{(x+y+z)}{3}$

= $\frac{80+10}{3} = 30$

=> Ans - (B)

62. **If a solid sphere of radius 10 cm is moulded into 8 spherical solid balls of equal radius then the surface area of each ball is**

A $60\ \pi\ cm^2$

B $50\pi cm^2$

C $75\pi cm^2$

D $100\pi cm^2$

Answer: D

Explanation:
Let radius of each ball be r cm and radius of solid sphere = $R = 10$ cm

=> Volume of sphere = $\frac{4}{3}\pi R^3$

According to ques,

=> $\frac{4}{3}\pi R^3 = 8 \times \frac{4}{3}\pi r^3$

=> $(10)^3 = 8r^3$

=> $r^3 = (\frac{10}{2})^3$

=> $r = 5$ cm

$\therefore$ Surface area of each ball = $4\pi r^2$

=> $4 \times \pi \times 25 = 100\pi\ cm^2$

63. **If 7% of the sale price of an article is equivalent to 8% of its cost price and 9% of its sale price exceeds 10%of its cost price by Re. 1, then what is the costprice of the article?**

A Rs. 400

B Rs. 350

C Rs. 300

D Rs. 280

Answer: B

Explanation:

Let cost price of article = Rs. $100x$

Let marked price be Rs. $100y$

It is given that 7% of MP = 8% of CP

=> $7y = 8x$ ----------(i)

Also, $9y - 10x = 1$ ----------(ii)

Solving equations (i) and (ii), we get : $y = 4$ and $x = 3.5$

$\therefore$ Cost price of article = $100 \times 3.5 = Rs.\ 350$

=> Ans - (B)

64. **Two passengers boarding a flight were found to have between them 34.5 kg of luggage. As per the excess luggage policy of the flight operator, the two passengers were made to pay Rs. 3.75 and Rs. 6.00 for the excess weight of their luggage. Later they found out that if the same luggage wereto belong to just one person, then the excess luggage fee would have been Rs. 13.50. How muchfree luggageis allowed for each passenger?**

A 8 kg

B 9 kg

C 6.5 kg

D 7.5 kg

Answer: D

65. **A person wishes to make a 100 sq m rectangular garden. Since he has only 30 m barbed wire for fencing, he fences only three sides letting the house wall act as the fourth side The width of the garden is**

A 10 m

B 5 m

C 50 m

D 100 m

Answer: B

Explanation:

Area of garden = 100 sq m

Let length = l and width = b

l x b = 100

Option A : b = 10 => l = 10 . It is a square and not a rectangle.

Option C : b = 50 , l= 2 . Since, he fences only three sides, either 2l +b should be 30 or l+2b should be 30. Neither of these values satisy the condition.

Option D: b alone cannot be 100

hence option B

66. **A daily wage worker was paid Rs. 1,700 during a period of 30 days. During this period he was absent for 4 days and was fined Rs. 15 per day for absence. He was paid the full salary only for 18 days as he came late on the other days. Those who came late were given only half the salary for that day. What was the total salary paid per month to a worker who came on time every day and was never absent?**

A Rs. 2400

B Rs. 3000

C Rs. 2700

D Rs. 2250

Answer: A

Explanation:
Let salary for full day = Rs. $2x$, half day salary = Rs. x and absent penalty = Rs. 15

The worker was absent for 4 days, fully paid for 18 days, => He was late for 8 days

According to ques,

=> $(18 \times 2x) + (8 \times x) - (4 \times 15) = 1700$

=> $36x + 8x - 60 = 1700$

=> $x = \frac{1760}{44} = 40$

$\therefore$ Salary paid to the worker who came on time every day and was never absent = $30 \times 2 \times 40 = Rs. 2400$

=> Ans - (A)

67. **The number of rectangles that you can find on a chessboard is**

A 1764

B 1600

C 1825

D 1296

Answer: D

Explanation:

Total number of squares in a $n \times n$ chessboard = $\sum_1^n (n)^2$

and total number of rectangles = $C_2^{(n+1)} \times C_2^{(n+1)}$

=> Number of rectangles = $C_2^9 \times C_2^9$

= $36 \times 36 = 1296$

=> Ans - (D)

68. **A car driver travels from the plains to the hill station, which are 200 km apart, at an average speed of 40 km/h. In the return trip, he covers the same distance at an average speed of 20 km/h. The average speed of the car over the entire distance of 400 km is**

A 16.56 km/h

B 17.89 km/h

C 26.67 km/h

D 35 km/h

Answer: C

Explanation:

Time taken when he travels at 40 km/hr = $\frac{200}{40} = 5$ hours

and time taken travelling at 20 km/hr = $\frac{200}{20} = 10$ hours

=> Total time = 15 hours

$\therefore$ Average speed = $\frac{400}{15} = 26.67$ km/hr

=> Ans - (C)

69. **The area of a square increases by ..... if its side increases by 30%**

A 71%

B 60%

C 69%

D 30%

Answer: C

Explanation:

Equivalent increase in area = $30 + 30 + (\frac{30 \times 30}{100})$

= $60 + 9 = 69\%$

=> Ans - (C)

70. **The monthly incomes of two persons are in the ratio of 4 : 5 and their monthly expenditures are in the ratio of 7 : 9. If each saves Rs. 50 a month, then what are their monthly incomes?**

A Rs. 100, Rs. 125

B Rs. 200, Rs. 250

C Rs. 300, Rs. 375

D Rs. 400, Rs. 500

Answer: D

Explanation:

Let their monthly incomes be Rs. $4x$ and $5x$ respectively, and their monthly expenditures be Rs. $7y$ and $9y$

According to ques,

=> $4x - 7y = 50$ ----------(i)

and $5x - 9y = 50$ ----------(ii)

Solving above equations, we get : $y = 50$ and $x = 100$

$\therefore$ Their monthly incomes = Rs. 400 and Rs. 500

=> Ans - (D)

71. **A's age is $\frac{1}{6}$th of B's age. B's age will be twice of C's age after 10 years. If C's eighth birthday was celebrated two years ago, then the present age of A must be**

A 5 years

B 10 years

C 15 years

D 20 years

Answer: A

Explanation:

Let B's age = $6x$ years and A's age = x years and C' present age = 10 years

According to ques,

=> $6x + 10 = 2 \times (10 + 10)$

=> $6x = 30$

=> $x = 5$

∴ A's present age = **5 years**

=> Ans - (A)

72. **A manufacturer offers a 20% rebate on the marked price of a product. The retailer offers another 30% rebate on the reduced price. The two reductions are equal to a single reduction of**

A 50%

B 44%

C 46%

D 40%

Answer: B

Explanation:

Effective discount = $20 + 30 - \left(\frac{20 \times 30}{100}\right)$

= $50 - 6 = 44\%$

=> Ans - (B)

73. **A leak was found in a ship when it was 77 km from the shore. It was found that the leak admits 2.25 tonnes of water in 5.5 minutes. 92 tonnes will suffice to sink the ship. But the pumps can throw out the water @ 12 tonnes an hour. Find the average rate of sailing at which the ship may reach the shore as it begins to sink.**

A 9.75 km/h

B 13 km/h

C 14.5 km/h

D 10.5 km/h

Answer: D

Explanation:

Rate of leak = $2.25 \times \frac{60}{5.5} = \frac{270}{11}$ tonnes/hr and rate of pump = 12 tonnes/hr

To suffice 92 tonnes, time taken by ship = $92 \div \left(\frac{270}{11} - 12\right)$

= $92 \times \frac{11}{138} = \frac{22}{3}$ hr

=> Average rate of sailing = distance/time

= $77 \div \frac{22}{3}$

= $77 \times \frac{3}{22} = 10.5$ km/hr

=> Ans - (D)

74. **Suppose six coins are flipped. Then the probability of getting at least one tail is**

A $\frac{71}{72}$

B $\frac{53}{54}$

C $\frac{63}{64}$

D $\frac{1}{12}$

Answer: C

Explanation:

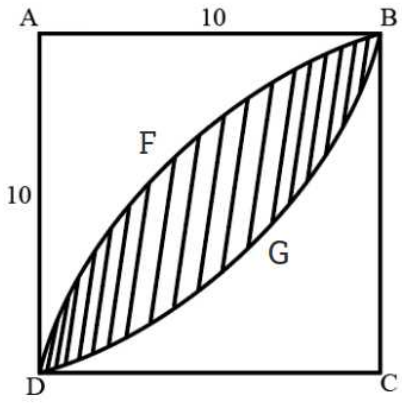
Total number of events that would occur by flipping six coins = $2^6 = 64$

Probability that no tail occurs = $\frac{1}{64}$

=> Probability of occurring at least one tail = $1 - \frac{1}{64} = \frac{63}{64}$

=> Ans - (C)

75. **In the figure, ABCD is a square with side 10. BFD is an arc of a circle with centre C. BGD is an arc of a circle with centre A. What is the area of the shaded region**



A $100 - 50\pi$

B $100 - 25\pi$

C $50\pi - 100$

D $25\pi - 100$

Answer: C

Explanation:

Side of square = Radius of arc = 10 cm

Now, area of shaded region = $2 \times [$ area (sector ABD) $-$ area ($\triangle$ ABD) $]$

= $2 \times \left[\left(\frac{\theta}{360^\circ} \times \pi r^2\right) - \left(\frac{1}{2}\right) \times b \times h\right]$

= $2 \times [(\frac{90^\circ}{360^\circ} \times \pi \times 100) - (\frac{1}{2} \times 10 \times 10)]$

= $2 \times (25\pi - 50)$

= $(50\pi - 100)\ cm^2$

=> Ans - (C)

76. **Three boys and three girls are to be seated around table in a circle. Among them the boy X does not want any girl neighbour and the girl Y does not want any boy neighbour. How many such arrangements are possible?**

A 5

B 6

C 4

D 2

Answer: C

Explanation:
Position of X and Y is fixed, as all three boys are together with X in center and three girls together with Y in center.

Number of arrangement for boys = $(3 - 1)! = 2! = 2$

and similarly for girls = $2! = 2$

$\therefore$ Total number of ways = $2 \times 2 = 4$

=> Ans - (C)

77. **We have an angle of $2\left(\frac{1^\circ}{2}\right)$. How big will it look through a glass that magnifies things three times?**

A $2\left(\frac{1^\circ}{2}\right) \times 4$

B $2\left(\frac{1^\circ}{2}\right) \times 3$

C $2\left(\frac{1^\circ}{2}\right) \times 2$

D none of these

Answer: D

Explanation:

The degree will not change even when it is look through a magnifying glass, it will remain same = $2\left(\frac{1^\circ}{2}\right)$

=> Ans - (D)

78. **A circular running path is 726 metres in circumference. Two men start from the same point and walk in opposite directions @ 3.75 km/h and 4.5 km/h respectively. When will they meet for the first time?**

A 5.5 minutes

B 6.0 minutes

C 5.28 minutes

D 4.9 minutes

Answer: C

Explanation:

Relative speed = $3.75 + 4.5 = 8.25$ km/hr = $8.25 \times \frac{5}{18} = \frac{13.75}{6}$ m/s

Time taken for them to meet first time = distance/speed

= $726 \div \frac{13.75}{6}$

= $726 \times \frac{6}{13.75} = 316.8$ sec

= $\frac{316.8}{60} = 5.28$ minutes

=> Ans - (C)

79. **How many ml of water must be added to 48 ml of alcohol to make a solution that contains 25% alcohol ?**

A 48

B 64

C 144

D 192

Answer: C

Explanation:

To make a 25% solution, containing 48 ml alcohol, water added

= $48 \times \frac{100}{25} = 144$ ml

=> Ans - (C)

80. **When a bus started from the first stop, the number of male passengers to the number of female passengers was 3: 1. At the first stop, 16 passengers got down and 6 more female passengers got in. The ratio of the male to female passengers now became 2 : 1. What was the total number of passengers in the bus when it started from the first stop?**

A 64

B 48

C 54

D 72

Answer: A

Explanation:

When the bus started, let total male passengers be $3x$ and female passengers be x

=> Total number of passengers = $4x$

At first stop, number of male passengers = $(4x - 16) \times \frac{3}{4} = 3x - 12$

and female passengers = $(4x - 16) \times \frac{1}{4} + 6 = x + 2$

According to ques,

=> $\frac{3x-12}{x+2} = \frac{2}{1}$

=> $3x - 12 = 2x + 4$

=> $x = 16$

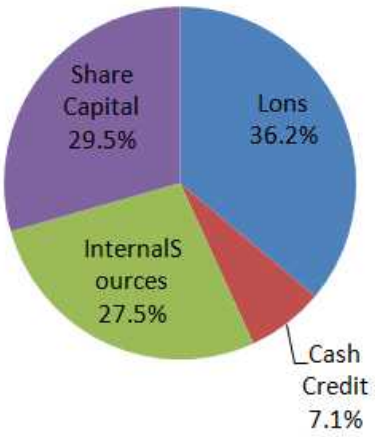
$\therefore$ Total passengers initially = $4 \times 16 = 64$

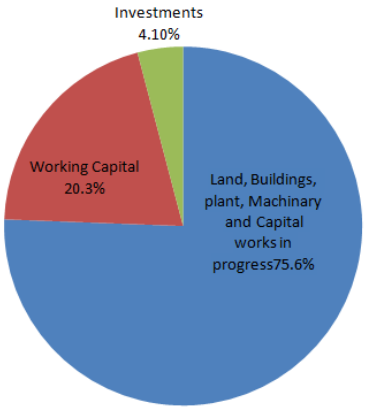
=> Ans - (A)

Data Analysis & Sufficiency

Instructions [81 - 85]

The diagram below depicts the sources and uses of funds in a Public Sector Enterprise. The total outlay is Rs. 4000 crore.





81. **If working capital has to be managed out of the loan funds, then what percentage (approximately) of loan funds should be set apart for this purpose?**

A 25%

B 40%

C 55%

D 70%

Answer: C

Explanation:
If working capital has to be managed out of the loan funds, percentage of loan funds that should be set aside (or used by working capital)

$= \frac{20.3}{36.2} \times 100$

$\approx \frac{20}{36} \times 100 = 55\%$

=> Ans - (C)

82. **The total amount which has been used for buying land, machinery, setting plants and capital works is approximately Rs.**

A 2000 crore

B 3000 crore

C 3500 crore

D 3800 crore

Answer: B

Explanation:
The total amount which has been used for buying land, machinery, setting plants and capital works is approximately

$\approx \frac{75}{100} \times 4000 = Rs.3000$ crores

=> Ans - (B)

83. **The total cash credits acquired by the company are approximately Rs**

A 200 crore

B 240 crore

C 270 crore

D 285 crore

Answer: D

Explanation:
Total cash credits acquired by the company
= $\frac{7.1}{100} \times 4000 = Rs.284$ crores

=> Ans - (D)

84. **The company is in need of more working capital. How much capital it can acquire by redeeming its investments?**

A Rs. 144 crore

B Rs. 152 crore

C Rs. 164 crore

D Rs. 184 crore

Answer: C

Explanation:
Capital acquired by company by redeeming its investments
= $\frac{4.1}{100} \times 4000 = Rs.164$ crores

=> Ans - (C)

85. **If the company were to manage its total working capital from internal resources alone, then how much fund from this resource will still be left for other use?**

A Rs. 288 crore

B Rs. 312 crore

C Rs. 344 crore

D Rs. 432 crore

Answer: A

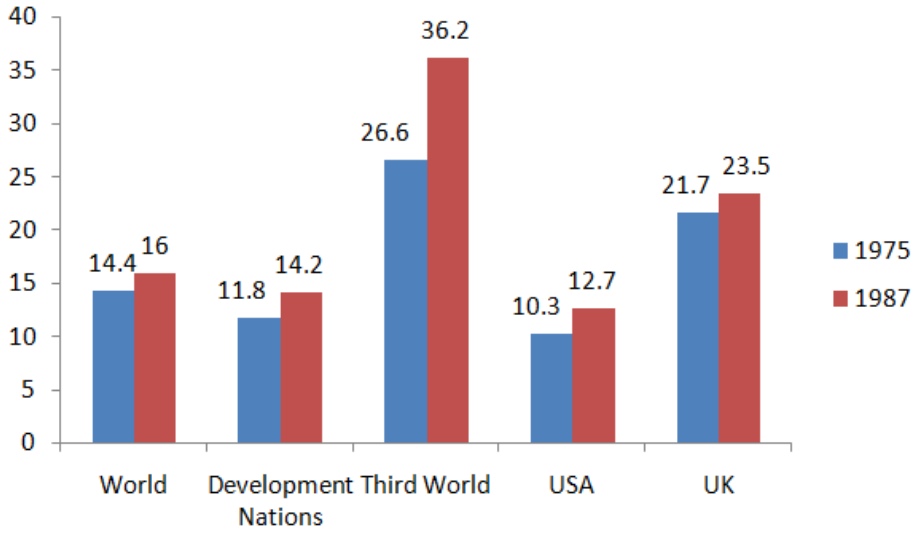
Explanation:
If the company were to manage its total working capital from internal resources alone, then % of funds left = $27.5 - 20.3 = 7.2\%$

=> Funds left for other use = $\frac{7.2}{100} \times 4000 = Rs.288$ crores

=> Ans - (A)

Instructions [86 - 89]

The following bar graph depicts the annual rates of Inflation in percentages for 1975 and 1987.



86. **From 1975 to 1987, inflation rate increased in the third world countries approximately by**

A 10%

B 20%

C 30%

D 35%

Answer: D

Explanation:
From 1975 to 1987, inflation rate increased in the third world countries approximately by

= $\frac{(36.2-26.6)}{26.6} \times 100$

$\approx \frac{9}{27} \times 100 \approx 35\%$

=> Ans - (D)

87. **In the year 1975, the lowest rate of inflation was in the**

A Developed Nations

B UK

C USA

D Third World

Answer: C

Explanation:
In the year 1975, the lowest rate of inflation was in the **USA** = 10.3%

=> Ans - (C)

88. **In the year 1987, the inflation rate in the third world countries vis-a-vis the whole world jumped approximately by**

A 50%

B 100%

C 125%

D 200%

Answer: C

Explanation:
Increase in the inflation rate in the third world countries vis-a-vis the whole world in 1987

= $\frac{(36.2-16)}{16} \times 100$

$\approx \frac{20}{16} \times 100 = 125\%$

=> Ans - (C)

89. **Comparing the figures for the USA vis-a-vis the developed nations, it can be concluded that**

A USA had better control on inflation

B Developed nations had better contro! on inflation

C The control on inflation rate continues to be the same for the USA and for the developed nations

D No conclusion can be drawn

Answer: C

Explanation:
Increase in inflation in Developed Nations = $14.2 - 11.8 = 2.4$

Increase in inflation in USA = $12.7 - 10.3 = 2.4$

=> The control oon inflation rate continues to be the same for the USA and the Developed Nations.

=> Ans - (C)

Instructions [90 - 93]

Refer the table given below to answer these questions.

PRODUCTION AND CONSUMPTION OF CEMENT

Country	Production (in million tonnes)		Per Capita Consumption(in kg)	
	1978	1979	1978	1979
Japan	84.89	87.8	689	631
Italy	38.32	39.72	656	582
USSR	129.28	123.01	483	388
West Germany	33.5	35.47	520	482
France	29.06	28.89	506	447
India	19.56	18.26	32	25

90. **In 1979, the maximum reduction in per capita consumption of cement took place in**

A USSR

B Italy

C Japan

D India

Answer: A

Explanation:
Maximum reduction in per capita consumption of cement took place in :

(A) : USSR = 483 - 388 = 95 kg **[MAX]**

(B) : Italy = 656 - 582 = 74 kg

(C) : Japan = 689 - 631 = 58 kg

(D) : India = 32 - 25 = 7 kg

=> Ans - (A)

91. **In 1979, USSR produced more cement than, the combined total of four other countries excluding**

A India

B Japan

C Italy

D France

Answer: B

Explanation:
Production in USSR in 1979 = 123.01 million tonnes

Clearly, the production of Japan alone is 87.8 million tonnes. If it combines any other three countries, it will increase more than 123.01 million tonnes. Hence Japan must be excluded.

=> Ans - (B)

92. **The adverse effect of decline in the consumption of cement in 1979 in comparison to 1978, is likely to be more in**

A USSR

B Italy

C France

D India

Answer: D

Explanation:
Reduction in per capita consumption in :

(A) : USSR = $\frac{(483-388)}{483} \times 100 \approx 20\%$

(B) : Italy = $\frac{(656-582)}{656} \times 100 \approx 10\%$

(C) : France = $\frac{(506-447)}{506} \times 100 \approx 10\%$

(D) : India = $\frac{(32-25)}{32} \times 100 \approx 21\%$ **[MAX]**

=> Ans - (D)

93. **In 1978, ... had 15 times more per capita cement consumption than that in India.**

A France

B West Germany

C USSR

D Japan

Answer: C

Explanation:
Per capita consumption (in kg) in 1978 in India = 32

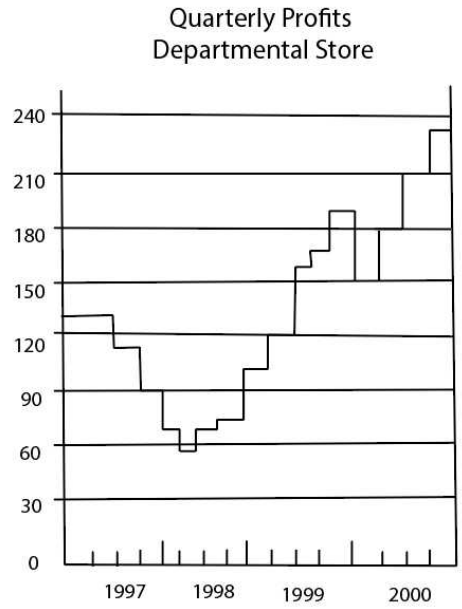
Now, fifteen times of it is = $32 \times 15 = 480$

Clearly, USSR (483) had fifteen times more per capita cement consumption in 1978 than that in India.

=> Ans - (C)

Instructions [94 - 98]

Refer the graph below to answer these questions :



94. **Approximately, what was the actual profit made by the Department Store in the second quarter of 1999?**

A Rs. 160 lakh

B Rs. 170 lakh

C Rs. 180 lakh

D Rs. 210 lakh

Answer: A

Explanation:
From the graph, we can see that the actual profit made by the Department Store in the second quarter of 1999 is approximately Rs 160 lakh

95. **In which of the following quarters, did the Departmental Store make the least amount of profits ?**

A Third quarter of 2000

B Second quarter of 1999

C First quarter of 1999

D Third quarter of 1998

Answer: D

Explanation:
The profits made by Departmental Store in different quarters are:

Third-quarter of 2000 - 230 lakhs

Second-quarter of 1999 - 160 lakhs

First-quarter of 1999 - 150 lakhs

Third-quarter of 1998 - 70 lakhs

Hence option D

96. **During the period 1998-2000, how many quarters exceeded the profit of Rs. 150 lakh?**

A 6

B 5

C 4

D 3

Answer: A

Explanation:
The quarters which exceeded 150 lakhs were

2,3,4 quarters of 1999 and 2,3,4 quarters of 2000

Hence 6 quarters in all

97. **In the year 2000, total profit made by the Departmental Store was approximately**

A Rs. 540 lakh

B Rs. 630 lakh

C Rs. 720 lakh

D Rs. 770 lakh

Answer: D

Explanation:
1st quarter of 2000 - 150

2nd quarter of 2000 -180

3rd quarter of 2000 -210

4th quarter of 2000 -230

Total = 770 lakhs

98. **The total annual profit made by the Departmental Store increased by approximately what percent from 1997 to 2000?**

A 40%

B 50%

C 90%

D 120%

Answer: C

Instructions [99 - 102]

Study the table given below to answer these questions.
NHPC has undertaken massive afforestation, which is an effective tool in arresting sail erosion and enrichment of environment. The details are as under

Sl. No.	Name of the project	Forest Area involved (in ha)	Area afforested (in ha)	No. of trees affected	No. of trees planed
1	Chanera-I(HP)	982.5	2000	40,000	39,81,186
2	Dulhasti(J&K)	1.1	18	700	7,85,673
3	Rangit(Sikkim)	34.6	38	5,000	3,32,000
4	Tanakpur(Uttaranchal)	293.35	350	17,368	6,66,165
5	Uri(J&K)	54.71	62.7	4,000	3,21,000
6	Dhauliganga-I(Uttaranchal)	138.6	140.73	1,517	2,87,887
7	Chamera-II(H.P.)	78.78	172.58	1,380	2,30,000
			Total	69,965	66,03,911

99. **The maximum number of trees has been affected by the project**

A Chamera-II (HP)

B Tanakpur

C Uri (J&K)

D Chamera-I (HP)

Answer: D

Explanation:
Maximum number of trees affected are 40,000 and is caused by Chamera-I (HP)

=> Ans - (D)

00. **Out of the given projects, the minimum forest area involved has been in respect of**

A Dulhasti (J & K)

B Uri (J & K)

C Rangit (Sikkim)

D Chamera-II (HP)

Answer: A

Explanation:

Dulhasti (J&K) has the minimum forest area involved which is equal to 1.1 hectares.

=> Ans - (A)

01. **Assuring that the trees have been planted on more or less even distribution, the density of the trees planted has been maximum in the case of**

A Chamera-1 (HP)

B Dulhasti (J & K)

C Rangit (Sikkim)

D None of the above

Answer: B

Explanation:
Density of trees planted is maximum in the state Dulhasti (J&K)

$= \frac{785673}{18} \approx 43650$

=> Ans - (B)

02. **Out of the given projects, maximum forest area involved is in the State of**

A Himachal Pradesh

B Jammu & Kashmir

C Sikkim

D Uttranchal

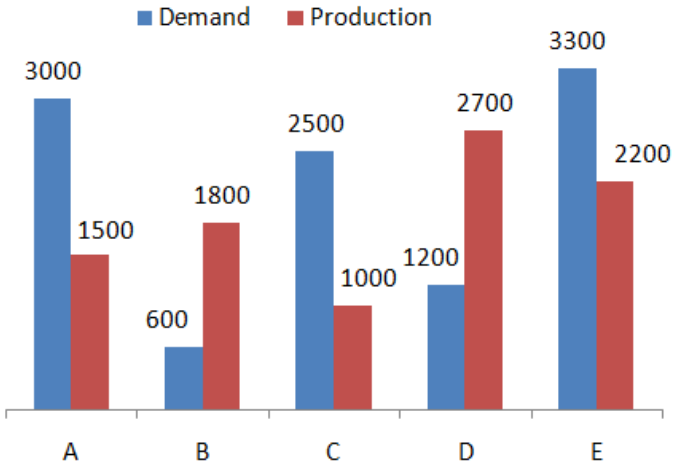
Answer: A

Explanation:
Clearly, maximum forest area involved is included in Chanera-I and Chamera-II in the state of Himachal Pradesh = 982.5 + 78.78 = 1061.28 ha

=> Ans - (A)

Instructions [103 - 107]

Study the following graph carefully to answer these questions given below it.



03. **What is the ratio of the companies having more demand than production to those having more production than demand?**

A $2:3$

B $4:1$

C $2:2$

D $3:2$

Answer: D

Explanation:

No. of companies having more demand than production = 3 (A,C,E)

No. of companies having more production than demand = 2 (B,D)

=> Required ratio = **3:2**

=> Ans - (D)

04. **What is the difference between the average demand and the average production of the five companies taken together ?**

A 1400

B 400

C 280

D 138

Answer: C

Explanation:

Average demand of all companies = $\frac{(3000+600+2500+1200+3300)}{5} = \frac{10600}{5} = 2120$

Average production of all companies = $\frac{(1500+1800+1000+2700+2200)}{5} = \frac{9200}{5} = 1840$

=> Required difference = $2120 - 1840 = 280$

=> Ans - (C)

05. **The production of company D is how many times to that of the production of the company A?**

A 1.8

B 1.5

C 2.5

D 1.11

Answer: A

Explanation:
Production of company D = 2700 and production of company A = 1500
=> Required ratio = $\frac{2700}{1500} = 1.8$
=> Ans - (A)

06. **The demand for company B is approximately what percent of the demand for company C?**

A 4

B 24

C 20

D 60

Answer: B

Explanation:
Demand for Company B = 600 and demand for company C = 2500
=> Required % = $\frac{600}{2500} \times 100 = 24\%$
=> Ans - (B)

07. **If company A desires to meet the demand by purchasing TV sets from a single company, then which one of the following companies can meet the need adequately ?**

A B

B C

C D

D None of the these

Answer: C

Explanation:

TV sets required by company A to meet their demands = 3000 - 1500 = 1500

Company C and E cannot fulfill their own demands, hence they cannot provide to A.

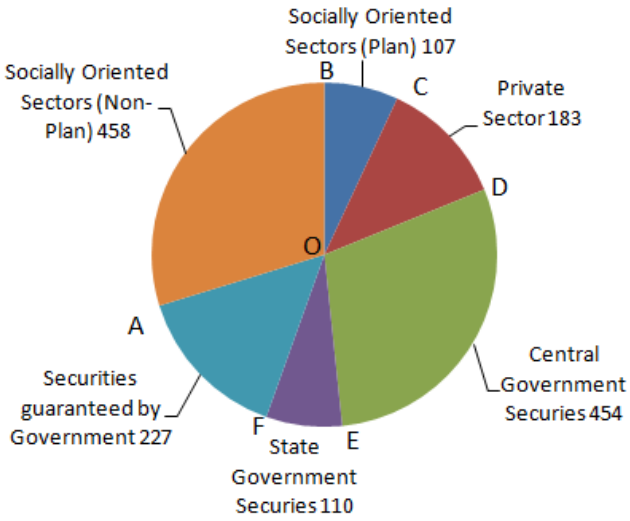
Company B has excess of = 1800 - 600 = 1200 sets, but company A need 1500.

Company D has excess of = 2700 - 1200 = 1500, hence it can meet company A demads.

=> Ans - (C)

Instructions [108 - 112]

The gross investments of Life Insurance Corporation of India (in crore of rupees)in different sectors are shown in the Pie Chart given below :



08. **The percentage of gross investments in State Government Securities is nearly**

A 7.1%

B 7.8%

C 8.6%

D 9.2%

Answer: A

Explanation:

Total investments = 458 + 107 + 183 + 454 + 110 + 227 = Rs. 1539 crores

=> Percentage of gross investments in State Government Securities = $\frac{110}{1539} \times 100 \approx 7.1\%$

=> Ans - (A)

09. **The magnitude of the acute $\angle BOC$ is nearly**

A 25°

B 40°

C 50°

D 60°

Answer: A

Explanation:
Total investments = 458 + 107 + 183 + 454 + 110 + 227 = Rs. 1539 crores

=> $\angle$ BOC = $\frac{107}{1539} \times 360^\circ \approx 25^\circ$

=> Ans - (A)

10. **The investment in socially-oriented sectors (Plan and Non-Plan) is .... than the investment in Government Securities (Central and State) by .....**

A more, 4 crore

B more, 1 crore

C more, 111 crore

D less, 106 crore

Answer: B

Explanation:
The investment in socially-oriented sectors (Plan and Non-Plan) = 107 + 458 = Rs. 565 crores

The investment in Government Securities (Central and State) = 454 + 110 = Rs. 564 crores

=> Required difference = 565 - 564 = **Rs. 1 crore**

=> Ans - (B)

11. **The investment in private sector is nearly ..... percent higher than the investment in State Government Securities.**

A 66

B 54

C 46

D 40

Answer: A

Explanation:
Investment in private sector = Rs. 183 crores and investment in State Govt securities= Rs. 110 crores

=> Required % = $\frac{(183-110)}{110} \times 100$

= $\frac{730}{11} \approx 66\%$

=> Ans - (A)

12. **The ratio of the area of the sector CDEF to the area of the sector CBAF is nearly**

A 1

B 0.75

C 0.50

D 0.25

Answer: A

Explanation:

Let angle made at centre by sector CDEF be θ and total investments be Rs. x

=> $\theta = \frac{183+454+110}{x} \times 360^\circ = 747 \times \frac{360^\circ}{x}$

Similarly angle made by sector CBAF = $\theta_1 = \frac{107+458+227}{x} \times 360^\circ = 792 \times \frac{360^\circ}{x}$

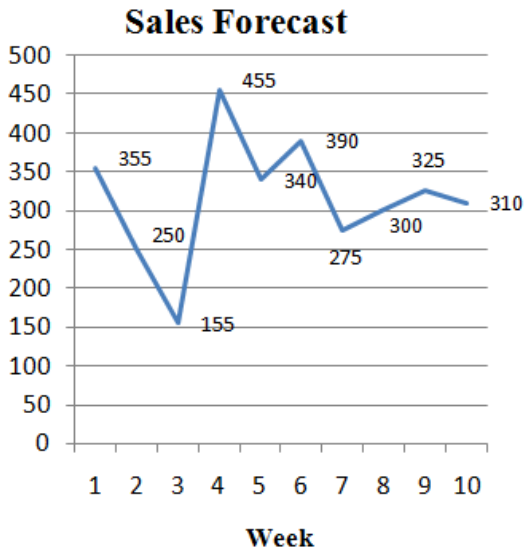
$\therefore$ Ratio of the area of the sector CDEF to the area of the sector CBAF = $\frac{\theta}{\theta_1}$

$= \frac{747}{792} \approx 1$

=> Ans - (A)

Instructions [113 - 115]

Study the following graph, showing the sales forecast for the next ten weeks, to answer these questions.



13. **If the forecasted demand is met by having uniform production during the weeks at an average level, then the number of weeks during which demand will not be met is**

A 2

B 3

C 4

D None of these

Answer: D

Explanation:

Average demand = $\frac{(355+250+155+455+340+390+275+300+325+310)}{10} = 315.5$

Any week for which demand is more than 315.5, the production will not able to meet the demand. There **5** such weeks.

=> Ans - (D)

14. **If the production is uniform, then what should be the minimum capacity of the storage space to store the units in excess of demand?**

A 25

B 50

C 100

D 200

Answer: D

15. **If the maximum production capacity is 300 units, then the unmet demand will be**

A 225

B 275

C 175

D All the demand will be met

Answer: A

Instructions [116 - 120]

Each question is followed by two statements ‘A’ and 'B'. Mark your answer as

16. **How far is it from town A to town B? Town C is 15 km west of town A.**
A. It is 10 km from town B to town C.
B. There is a canal between town A and town B.

A If the Question can be answered with the help of statement 'A’ alone.

B If the Question can be answered with the help of statement 'B’ alone.

C If the Question can be answered with the help of both the statements together but not with the help of either statement alone.

D If the Question cannot be answered even with the help of both the statements taken together or separately.

Answer: D

17. **How many people in town K read neither Times of India nor the Indian Express?**
A. Of the 2500 people in town K, 1000 read no newspaper.
B. Of the people in town K, 700 read the Times of India only and 600 read the Indian Express only.

A If the Question can be answered with the help of statement 'A' alone.

B If the Question can be answeredwith the help of statement 'B' alone.

C If the Question can be answered with the help of both the statements together but not with the help of either statement alone.

D If the Question cannot be answered even with the help of both the statements taken together or separately.

Answer: D

Explanation:
Clearly, each statement alone is not sufficient as we do not know the total number of newspapers studied by people in town K.

Both statements together are also not sufficient, as the whole set of newspapers is not defined.

=> Ans - (D)

18. **What is the total numberof trips to a certain construction site made by the two trucks delivering 100 metric tons of gravel?**
A. The smaller truck carried 5 metric tons of gravel on eachtrip to the site and the larger truck carried 8 metric tons of gravel on eachtrip to the site.
B. Each truck delivers the same total amountof gravel to the site.

A If the Question can be answered with the help of statement 'A' alone.

B If the Question can be answeredwith the help of statement 'B' alone.

C If the Question can be answered with the help of both the statements together but not with the help of either statement alone.

D If the Question cannot be answered even with the help of both the statements taken together or separately.

Answer: C

19. **John had an average score of 85 in three tests. What was the John's lowest score?**
A. John's highest score was 95.
B. The average of John's two highest scores was 92.

A If the Question can be answered with the help of statement 'A' alone.

B If the Question can be answered with the help of statement 'B' alone.

C If the Question can be answered with the help of both the statements together but not with the help of either statement alone.

D If the Question cannot be answered even with the help of both the statements taken together or separately.

Answer: B

Explanation:
Total score of John in the three tests = $85 \times 3 = 255$

(A) : John's highest score = 95
=> Sum of rest two scores = $255 - 95 = 160$

Thus, we cannot find the lowest score.

(B) : Sum of two highest scores = $92 \times 2 = 184$
=> Lowest score = $255 - 184 = 71$

$\therefore$ Statement B alone is sufficient.

=> Ans - (B)

20. **What is the area of the play ground P?**
A. Playground is rectangular in shape and is 120 metres wide.
B. Playground is square in shape and has a side with length of 120 metres.

A If the Question can be answered with the help of statement 'A' alone.

B If the Question can be answered with the help of statement 'B' alone.

C If the Question can be answered with the help of both the statements together but not with the help of either statement alone.

D If the Question cannot be answered even with the help of both the statements taken together or separately.

Answer: B

Explanation:
In statement A, to find the area for a rectangular field, we need both length and breadth, thus this statement alone is not sufficienct.

In statement B, for a square field, Area = $(120)^2 = 14400\ m^2$

Thus, statement B alone is sufficient.

=> Ans - (B)

Intelligence & Critical Reasoning

Instructions [121 - 125]

Mehta is planning his sales calls for the next day. He is judged and paid by his company both on the basis of the number of calls he makes and the amount of sales he generates.

Alembic Co. will take only one hour and will probably result in an order of 5 boxes. Bell Corp. will take three hours and will result in an order of 20 boxes or nothing. Champion Shops Inc. will take one hour and yield an order of 10 boxes. Des Raj Bros. will take from one to three hours and probably result in an order of 10 to 30 boxes.

21. **Under the conditions mentioned above, what is the greatest number of boxes that Mehta can reasonably help to sell in a seven hour working day?**

A 65

B 60

C 45

D 35

Answer: B

22. **Under the given conditions, what is the minimum number of boxes that Mehta can reasonably expectto sell in eight working hours?**

A none

B 15

C 20

D 35

Answer: D

23. **Mehta has sold 20 boxes to Des Raj Bros, and then his car breaks down and gets repaired only at 2 PM. What is the minimum sales figure for the day that he can reasonably hope to achieve by 5 PM?**

A 35

B 40

C 45

D 55

Answer: A

24. **If Mehta has an unbreakable thirty minutes lunch on appointment at 1 : 30 PM, then what is his best schedule for a 9 AM to 5 PM day?**

A Alembic and Champion, then Bell and Des Raj Bros.

B Bell Corp and Alembic, then Champion andif time permits, then Des Raj Bros.

C Bell and Champion, then Des Raj Bros andif time permits, then Alembic.

D Champion, Bell Corp., Alembic and Des Raj Bros.

Answer: C

Explanation:
Alembic -> 5 per hour

Bell Corp -> 20/3 per hour

Champion Shops Inc -> 10 per hour

Des Raj Bros -> 1-3 hours = 10-30 boxes

Hence he will go with champion and bell corp and then des bros and if time permits, then alembic

25. **If Mehta is sick and has to carry all his calls over to the next day, when he must visit another company Escorts from 10.30 AM to 1.30 PM, then what should be his best schedule for the day from 9 AM to 5 PM?**

A Champion, Escorts, Des Raj and if time permits, Alembic

B Champion, Escorts, Alembic andif time permits, Des Raja Bros

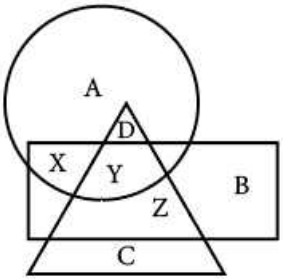
C Bell, Escorts, Des Raj Bros, andif time permits, Champion

D Alembic, Escorts, Des Raj Bros andif time permits, Champion

Answer: A

Instructions [126 - 130]

In the diagram given below, the circle represents Professors in a Medical College, the triangle stands for Surgical Specialists while the rectangle represents the Medical Specialists:



26. **Professors who are also surgical specialists are represented by**

A B

B C

C D

D X

Answer: C

27. **Surgical specialists who are also medical specialists but not professors are represented by**

A X

B Y

C Z

D B

Answer: C

Explanation:
Professors in a Medical College = A,D,X,Y

Surgical Specialists = C,D,Y,Z

Medical Specialists = B,X,Y,Z

Surgical specialists who are also medical specialists = Y, Z

Surgical specialists who are also medical specialists but not professors = Z

28. **College professors who are also medical specialists are represented by**

A Y

B X

C Z

D A

Answer: B

Explanation:
Professors in a Medical College = A,D,X,Y

Surgical Specialists = C,D,Y,Z

Medical Specialists = B,X,Y,Z

Professors who are Medical specialists = X and Y.

So either of the options A and B are correct.

29. **'B' represents**

A Professors who are not medical specialists

B Professors who are not surgical specialists

C Professors who are neither medical specialists nor surgical specialists

D Medical specialists who are neither professors nor surgical specialists

Answer: D

Explanation:
B lies inside the rectangle but outside the triangle and circle. So B represents only medical specialists. Hence B represents medical specialists who are neither professors nor surgical specialists.

30. **'C' represents**

A Professors

B Medical Specialists

C Surgical Specialists

D Medical and Surgical Specialists

Answer: C

Explanation:
C lies inside the triangle but outside the rectangle and circle. So C represents only surgical specialists who are not professors and medical specialists.

Hence, the correct answer is Option C

Instructions [131 - 135]

Answer these questions based on the following paragraph:

Five golfers C, D, E, F and G play a series of matches in which the following are always true of the results. Either C is the last and is the first or C is the first and G is the last. D finishes ahead of E. Every golfer plays in and finishes every match. There are no ties in any match, i.e. no two players ever finish in the same position in a match.

31. **If exactly 1 golfer finishes between C and D, then which of the following must be true?**

A C finishes first

B G finishes first

C F finishes third

D E finishes fourth

Answer: D

32. **Which of the following CANNOT be true?**

A E finishes second

B F finishes second

C F finishes ahead of F

D F finishes ahead of D

Answer: A

33. **If D finishes third, then which of the following must be true?**

A G finishes first

B E Finishes ahead of F

C F finishes ahead of E

D F finishes behind D

Answer: C

34. **If C Finishesfirst, then in how many different orders is it possible for the other golfers to finish?**

A 1

B 2

C 3

D 4

Answer: B

35. **Which of the following additional conditions makeit certain that F finishes second?**

A C Finishes ahead of D

B D finishes ahead of F

C F finishes ahead of D

D D finishes behind G

Answer: C

Instructions [136 - 140]

Two statements are given followed by two conclusions I and II. Take the statement to be true and then decide which of the conclusions logically follows. Mark your answer as

36. **Statement : Of the ten fishermen caught in a storm, nine managed to return to the shore. Praveen has not yet returned after four days.**
Conclusions :
I. Praveen got killed in the storm.
II. Praveen has survived the storm.

A If only conclusion I follows

B If only conclusion II follows

C If either conclusion I or II follows

D If neither conclusion I nor II follows

Answer: C

37. **Statement : Now you don't need an import licence to own a VCR.**
Conclusions :
I. VCRs are now manufactured indigenously.
II. VCRs are now freely permitted to be imported.

A If only conclusion I follows

B If only conclusion II follows

C If either conclusion I or II follows

D If neither conclusion I nor II follows

Answer: B

38. **Statement : Just about everyone in Germany has been ona diet at one time or the other and millions of them have learned that the weight they lose is all too easily regained. Still despite their frustration, few question the wisdom of dieting.**
Conclusions :
I. Germans should stop dieting.
II. Germans do not learn from experience.

A If only conclusion I follows

B If only conclusion II follows

C If either conclusion I or II follows

D If neither conclusion I nor II follows

Answer: D

39. **Statement: A study of Planning Commission reveals boom in revenues. However, this has been of little avail owing to soaring expenditure. In the event, there has been a high dose of deficit financing, leading a marked rise in prices. Large financial outlays year after year had little impact on the level of living.**
Conclusions :
I. A boom in revenues leads to rise in prices.
II. Large financial outlays should be avoided.

A If only conclusion I follows

B If only conclusion II follows

C If either conclusion I or II follows

D If neither conclusion I nor II follows

Answer: D

40. **Statement : The average number of students per teacher is 50 in the urban areas where a sit is 60 in rural areas. The national average is 55.**
Conclusions :
I. The student-teacher ratio in the rural areas is higher than in the urban areas.
II. More students study with the same teacher in the rural areas as compared to those in the urban areas.

A If only conclusion I follows

B If only conclusion II follows

C If either conclusion I or II follows

D If neither conclusion I nor II follows

Answer: B

Instructions [141 - 145]

Read the following information carefully to answer these questions given below it.

There are six teachers A, B, C, D, E and F ina school. Each of the teachers teaches two subjects, one compulsory subject and the other optional subject. D's optional subject is History while three others have it as compulsory subject. E and F have Physics as one of their subjects. F's compulsory subject is

Mathematics which is an optional subject of both C and E. History and English are A's subjects but in terms of compulsory and optional subjects, they are reverse of those of D's. Chemistry is an optional subject of any one of them. There is only one female teacher in the school who has English as her compulsory subject.

41. **What is C's compulsory subject?**

A History

B Physics

C Chemistry

D English

Answer: A

Explanation:

	Compulsory	Optional	Gender
A	History	English	Male
B	History	Chemistry	Male
C	History	Mathematics	Male
D	English	History	Female
E	Physics	Mathematics	Male
F	Mathematics	Physics	Male

C's compulsory subject is History

42. **Who is a female member in the group?**

A A

B B

C C

D D

Answer: D

43. **Who among the following has some compulsory and optional subjects as those of F's?**

A D

B B

C A

D C

Answer: D

Explanation:

	Compulsory	Optional	Gender
A	History	English	Male
B	History	Chemistry	Male
C	History	Mathematics	Male
D	English	History	Female
E	Physics	Mathematics	Male
F	Mathematics	Physics	Male

C has Mathematics has its optional

D,B and A don't have any common subjects with F

44. **Disregarding which is compulsory and which is the optional subject, who has the same two subjects combination as F?**

A A

B B

C E

D D

Answer: C

Explanation:

	Compulsory	Optional	Gender
A	History	English	Male
B	History	Chemistry	Male
C	History	Mathematics	Male
D	English	History	Female
E	Physics	Mathematics	Male
F	Mathematics	Physics	Male

F and E same pairs of subjects

45. **Which of the following groups of teachers has History as the compulsory subject?**

A A, C and D

B B, Cand D

C C and D

D A, B and C

Answer: D

Explanation:

	Compulsory	Optional	Gender
A	History	English	Male
B	History	Chemistry	Male
C	History	Mathematics	Male
D	English	History	Female
E	Physics	Mathematics	Male
F	Mathematics	Physics	Male

Group of teachers who has History as the compulsory subject - A,B and C

Instructions [146 - 148]

Seven poles A, B, C, D, E, F and G are put in such a way that the distance between the next two decreases by

1 metre. The distance between the first two poles, A and B,is 10 metres, Now answer the following questions?

46. **What is the distance between the first pole A and the last pole G?**

A 40 m

B 49 m

C 45 m

D None of these

Answer: C

Explanation:
According to the problem, the distance between poles are

A to B = 10 m

B to C = 9 m

C to D = 8 m

D to E = 7 m

E to F = 6 m

F to G = 5 m

∴ The distance between the first pole A and the last pole G = 10 + 9 + 8 + 7 + 6 + 5 = 45 m

47. **If a monkey hops from pole G to pole C, then how much distance did it cover?**

A 26 m

B 19 m

C 22 m

D None of these

Answer: A

Explanation:
According to the problem, the distance between poles are

A to B = 10 m

B to C = 9 m

C to D = 8 m

D to E = 7 m

E to F = 6 m

F to G = 5 m

Distance covered by the monkey from pole G to pole C = 8 + 7 + 6 + 5 = 26 m

48. **If the authorities decide to remove one pole and place the remaining on equal distances among the poles, then each set of two poles would be ..... metres apart.**

A $88\frac{1}{2}$

B $7\frac{1}{2}$

C 9

D None of these

Answer: C

Explanation:
Distance between A and B = 10m

Distance between B and C = 9m

Distance between C and D = 8m

Distance between D and E = 7m

Distance between E and F = 6m

Distance between F and G = 5m

Total distance = 45m

Since one pole is removed, we now need to place only 6 poles => 5 equal spaces = 45/5 = 9m

Instructions [149 - 151]

In these questions, there are four groups of letters, words or numbers listed as (a), (b), (c) and (d). On of the groups does not belong to the same category as others. Find the odd one out.

A BAT

B RAT

C EAT

D FAT

Answer: C

A 5183

B 33442

C 34424

D 25631

Answer: C

A USTO

B OOTU

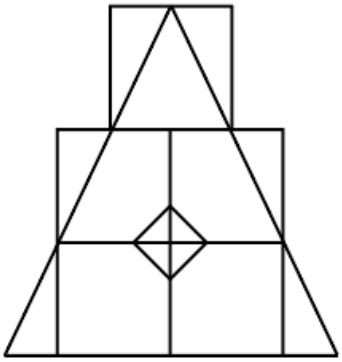
C TTOU

D SSTO

Answer: A

Instructions [149 - 150]

Study the following figure carefully to answer these questions.



49. **How many squares are there in the figure?**

A 5

B 6

C 7

D 8

Answer: C

Explanation:
There is 1 square at the top.

There are 4 squares are present below the top square. There is 1 square with the combination of these squares.

There is 1 small square at the centre of the figure.

∴ Number of squares in the figure = 1 + 4 + 1 + 1 = 7

50. **Count the number of triangles in the figure.**

A 10

B 12

C 17

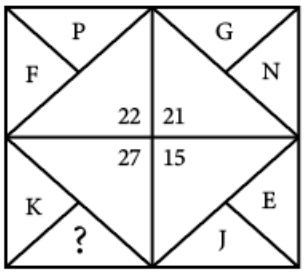
D 24

Answer: C

Instructions [151 - 152]

Find out the missing letter/numberin place of '?'.

51.



A M

B Q

C P

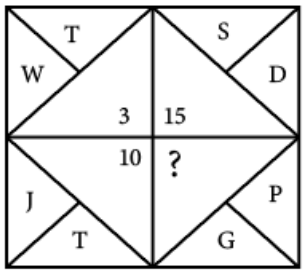
D S

Answer: C

Explanation:
F is the 6th letter and P is the 16th letter. Sum = 22

Similarly, K is the 11th letter and we need the 16th letter which is P to sum it up to the 27th.

52.



A 11

B 5

C 9

D 13

Answer: C

Explanation:
S - D = 19 - 4 = 15

W - T = 23 - 20 = 3

T - J = 20 - 10 = 10

The logic here is difference between the values of letters in a quadrant is equal to the number in the quadrant.

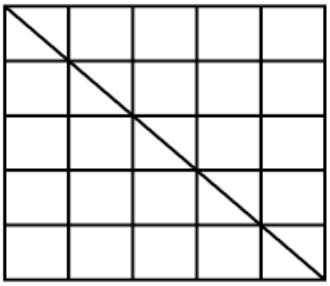
Similarly,

The required value = P - G = 16 - 7 = 9

Hence, the correct answer is Option C

Instructions [153 - 154]

Use the figure given below to answer these questions.



53. **What is the number of triangles in the figure?**

A 30

B 27

C 20

D 15

Answer: A

54. **What is the number of squares in the figure ?**

A 60

B 55

C 50

D 42

Answer: B

Instructions [155 - 157]

if 'EFGHUK'"is the coded letter representing 'VUTSRQP', then choose the right code for the words given in the capital letters from the answer choices(a), (b), (c) and (d) :

55. **GROUP**

A TILFK

B TILEL

C TILGH

D TILHG

Answer: A

56. **ZERO**

A BUHN

B AVIM

C AVIL

D AVTI

Answer: C

57. **HIGH**

A STRS

B SRTS

C RSTR

D RJHR

Answer: B

Indian & Global Development

58. **Name India's largest pharma ceutical companywith a turnover of Rs. 1000 crore.**

A Glaxo Smith Kline

B Cipla

C Ranbaxy

D None of these

Answer: C

59. **Who is currently the Secretary-General of the UN?**

A Colin Powell

B TonyBlair

C Kofi Annan

D None of these

Answer: C

60. **Under what brand name has MTNL started internet telephony to 168 countries?**

A Bol-Anmol

B Talk time

C Baaten Anmol

D Talky

Answer: A

61. **Who is the Cabinet Minister for Finance in the NDA Government?**

A Yashwant Sinha

B Jaswant Singh

C Anantha Kumar

D None of these

Answer: B

62. **Name the renowned Indian space scientist who has been conferred the Officer of the Legion of Honour by the French Government.**

A A.P.J. Abdul Kalam

B K. Subramaniyam

C Dr. Seyed E. Hasnain

D K. Kasturirangan

Answer: D

63. **How many countries have signed the SAARC Preferential Trading Arrangement (SAPTA)?**

A Three

B Four

C Six

D Seven

Answer: D

64. **The last meeting of the foreign ministers of the ASEAN was held in September 2002. ASEAN stands for**

A Academy of South-East Asian Nations

B Association of South-East African Nations

C Association of South-East Asian Nations

D None of the above

Answer: C

65. **How many Union Territories does India have?**

A Six

B Seven

C Four

D Five

Answer: A

66. **Which of the following is true about the key points agreed at the recently held Earth Summit, 2002 in Johannesburg?**
I. To halve proportion of people wilhout access to proper sanitation by 2015.
II. To cut significantly the rate at which rare animals and plants are becoming extinct by 2010.
III. To initiate strategies to preserve resourcesfor future generations by 2005.
IV. To increase the share of world energy produced from renewable 'green' sources such as solar or wind power.

A I and II

B I, II and III

C I, II and IV

D I, III and IV

Answer: B

67. **Name the country which is the second fastest growing spender in the world on Information Technology.**

A France

B Switzerland

C Japan

D India

Answer: D

68. **The Union Disinvestment Minister is**

A Yashwant Sinha

B George Fernandes

C Arun Shourie

D None of the above

Answer: C

69. **How many countries are the members of SAARC ?**

A Four

B Five

C Six

D Seven

Answer: D

70. **In September 2002, the Cauvery River Authority (CRA) has scaled down the quantum of water to be released by**

A Tamil Nadu to Karnataka

B Kornataka to Tamil Nadu

C Karnataka to Andhra Pradesh

D Tamil Nadu to Kerala

Answer: C

71. **According to the census 2001, the density of population in India (per sq km) is**

A 304

B 324

C 344

D 364

Answer: C

72. **The present Chief Minister of Jammu & Kashmir belongs to**

A National Conference

B People’s Democratic Party

C Congress Party

D None of these

Answer: C

73. **The Vice-Presidentis the Chairman of the**

A Parliament

B Lok Sabha

C Rajya Sabha

D All of the above

Answer: C

74. **The 2001 Lal Bahadur Shastri National Award for Excellence in Public Administration and Management Sciences has been conferred on**

A Azim Hasham Premji

B N. R. Narayana Murthy

C Kumarmangalam Birla

D Anil Ambani

Answer: B

75. **How many members of the Rajya Sabha retire every two years?**

A Half

B One-third

C One-fourth

D One-Fifth

Answer: B

76. **The Cabinet Committee on Economic Affairs (CCEA) has declared a bailout package for UTI. It includes**
I. Splitting UTI into two UTI-1 and UTI-II.
II. UTI-ll with an asset base of Rs. 17,784 crore would be brought under professional management.
III. Extension of a tax cover to investors holding upto 5000 US-64 units.
IV. UTI-11 will be privatised.

A I, II, III and IV

B I, II and III

C II and III

D III and IV

Answer: A

77. **According to the UNCTAD's World Investment Report 2002, which country has been ranked as the best performing host economies for the FDI ?**

A China

B Angola

C Hong Kong

D India

Answer: C

78. **Tokyo Marine & Fire Insuranceis offering General Insurance of India using the ad tagline "The life you deserve" in association with**

A IDBI

B HDFC

C SIDBI

D IFFCO

Answer: D

79. **A.F. Ferguson wasin the newsfor its recent audit survey report of a Tata Company and its subsequent withdrawl of the report. Name the Tata Company that was under scrutiny.**

A TISCO

B Tata Tea

C Tata Finance

D Tata Investment Corporation

Answer: C

80. **Which country is the latest entry into the United Nations ?**

A Eritrea

B Western Sahara

C East Timor

D Albania

Answer: C

81. **The 14th Asian Games wereheld in Busan during September-October 2002. Busan is in**

A North Korea

B South Korea

C Japan

D Singapore

Answer: B

82. **Which of the following is NOT a permanent member of the UN Security Council ?**

A Germany

B France

C Great Britain

D China

Answer: A

83. **Who is the Chairperson of the Planning Commission?**

A The Vice-President

B The Prime Minister

C The Finance Minister

D The Home Minister

Answer: B

84. **Which bank has introduced a wireless applience that uses SMSto authorised credit and transactions?**

A UTI Bank

B Citi Bank

C ABN Amro

D ICICI Bank

Answer: B

85. **The Kyoto Protocol of 1997 is related to**

A Asian Trade Development

B International Cyber Crime

C International Drug Trafficking

D Globai Climate Change

Answer: D

86. **The dropping of the demand for a separate State by the LTTE during the talks with the Sri Lankan Government is a favourable development for the resolution of the ethnic conflict. LTTE stands for**

A Liberation Tigers of Tamil Eelam

B Lankan Tigers for Tamil Eelam

C Lankan Troops for Tamil Empire

D None of the above

Answer: A

87. **Which organisation was the forerunner to the World Trade Organisation?**

A The World Bank

B General Agreementon Tariff Trade (GATT)

C The United Nations Development Fund (UNDP)

D The League of Nations

Answer: B

88. **Who among the following is the only Indian businessmanto be listed in Fortune's list, of 40 billionaires under 40 years of age?**

A Anil Ambani

B Kumarmangalam Birla

C Ratan Tata

D Mukesh Ambani

Answer: B

89. **What is Zero Coupon Bond?**

A Bond sold at the fraction of its face value

B Bond sold at the fraction of its cost price

C Bond issued for industrialists only

D None of the above

Answer: A

90. **What is the percentage of growth projected by the International Monetary Fund (IMF) for India during the current financial year ?**

A 7.5 percent

B 6.2 percent

C 9.5 percent

D 5.5 percent

Answer: D

91. **Which auto major launched the multi utility vehicle-Scorpio ?**

A TELCO

B FIAT

C Mahindra

D Toyota

Answer: C

92. **Which state tourism department's motto is "God's own country"?**

A Tamil Nadu

B Himachal Pradesh

C Assam

D Kerala

Answer: D

93. **According to NASSCOM, during the fiscal 2002-03, Indian software industry's exports will achieve a revenue of**

A $6.9 billion

B $8.5 billion

C $10.1 billion

D $12.5 billion

Answer: B

94. **Which mountain range does the Konkan railway pass through ?**

A western Ghats

B Eastern Ghats

C Nilgiri Hills

D Aravalis

Answer: A

95. **The organisation arranging the India International Trade Fair (IITF) is**

A ITDC

B ITPO

C CII

D FICCI

Answer: B

96. **Which of the following is not among the nine Indian companies listed on NYSE ?**

A TCS

B Wipro Ltd.

C Dr. Reddy's Lab

D ICICI Bank

Answer: A

97. **When theprice of a substitute of a commodity X falls, then the demandfor X**

A Rises

B Falls

C Remains unchanged

D First rises and then falls

Answer: B