2017 SSC CGL 21 Aug Shift-2

English

Instructions

For the following questions answer them individually

C crazy

guffaw

In the following question, some part of the sentence may have errors. Find out which part of the

	ntence has an error and select the appropriate option. If a sentence is free from error, select 'No $^{\circ}$ or'.
Ec	onomically, we (1)/ understand the world (2)/ round us in terms of scarcity. (3)/No Error (4)
A	1
В	2
С	3
D	4
ļ	Answer: C
Eco	planation: conomically, we (1)/ understand the world (2)/ AROUND us in terms of scarcity(3). Around should replace round. nce, Option C is the answer.
Qu	estion 2
se	the following question, some part of the sentence may have errors. Find out which part of the ntence has an error and select the appropriate option. If a sentence is free from error, select 'No or'.
Th	e two children, (1)/ brother and sister, were onto (2)/ their way to school. (3)/No Error (4)
A	1
В	2
С	3
D	4
Į.	Answer: B
	planation: to should be replace by on. Hence, B is the answer.
Qu	estion 3
	the following question, the sentence given with blank to be filled in with an appropriate word. Select e correct alternative out of the four and indicate it by selecting the appropriate option.
	nding the comedy routine extremely funny, the family laughed along with the rest of the bwd.
A	lot
В	hysterically

Answer: B
Explanation: As the word 'along' is used in the sentence, it should be preceded by an adverd i.e. words ending in ly. Thus, Option B hysterically is the answer.
Question 4
In the following question, the sentence given with blank to be filled in with an appropriate word. Select the correct alternative out of the four and indicate it by selecting the appropriate option.
The detective's ability to makes it easy for him to scare suspects into confessing.
A bluff
B stuff
C enough
D cough
Answer: A
Explanation: The detective's ability to BLUFF makes it easy for him to scare suspects into confessing. Here, only ability to bluff makes a meaningful sentence. Thus, option A is correct.
Question 5
In the following question, out of the four alternatives, select the word similar in meaning to the word given.
Belligerent
A Antagonistic
B Co-operative
C Dandy
D Delightful
Answer: A
Explanation: Belligerent means hostile and antagonistic. Thus, A is the answer.
Question 6
In the following question, out of the four alternatives, select the word similar in meaning to the word given.
Indiscreet
A Careless
A CarelessB Accurate

Explanation: Indiscreet means unwise and irresponsible. Thus, option A Careless is the correct answer. **Question 7**

In the following question, out of the four alternatives, select the word opposite in meaning to the word

Incentive

given.

- Impetus
- Stimulus
- Enticement
- **D** Hindrance

Answer: D

Explanation:

Hindrance is the opposite of Incentive. Thus, D is the answer.

Question 8

In the following question, out of the four alternatives, select the word opposite in meaning to the word given.

Benediction

- Criticism
- **B** Invocation
- **C** Beatitude
- Approbation

Answer: A

Explanation:

Benediction means utterance of a blessing, especially at the end of a religious service. Criticism is the opposite and the only negative word among the options. Thus, A is the answer.

Question 9

In the following question, out of the four alternatives, select the alternative which best expresses the meaning of the idiom/phrase.

To go off the air

- A To remove ventilator of a patient on his death bed
- **B** To not eat food for a long period of time
- To stop broadcasting a radio or TV program
- To waste time on silly or trivial things.

Answer: C

Explanation:

To go off the air means to to stop broadcasting a radio or TV program. Thus, C is the answer.

Question 10

In the following question, out of the four alternatives, select the alternative which best expresses the meaning of the idiom/phrase.

To make a fuss about

- A To be extremely delighted
- **B** To work hard for eventual success
- C To be very strict or have very high standards
- **D** An excessive display of attention or activity

Answer: D

Explanation:

To make a fuss about means to show an excessive display of attention or activity.

Ouestion 11

In the following question, out of the four alternatives, select the alternative which will improve the bracketed part of the sentence. In case no improvement is needed, select "no improvement".

I should (has to be) with them tonight.

- A has been
- **B** have been
- **C** been
- **D** no improvement

Answer: B

Explanation:

I should have been with them tonight is the right usage, Thus, B is the answer.

Question 12

In the following question, out of the four alternatives, select the alternative which will improve the bracketed part of the sentence. In case no improvement is needed, select "no improvement".

He must not (to be left) like this.

- A being left
- **B** been left
- **C** be left
- **D** no improvement

Answer: C

Explanation:

He must not be left like this is the right usage as must should be followed by be. Thus, C is the answer.

Question 13 In the following question, out of the four alternatives, select the alternative which is the best substitute of the words/sentence. Free from disturbance A Tranquil

B Agitated

C Chaotic

D Violent

Answer: A

Explanation:

Tranquil means to be calm and free from disturbance. Thus, A is the answer.

Question 14

In the following question, out of the four alternatives, select the alternative which is the best substitute of the words/sentence.

An arrangement of flowers fastened in a ring used for laying on a grave

- A Brier
- **B** Prickle
- **C** Wreath
- **D** Splint

Answer: C

Explanation:

Wreath is the arrangement of flowers fastened in a ring used for laying on a grave. Thus, C is the answer.

Question 15

In the following question, four words are given out of which one word is correctly spelt. Select the correctly spelt word.

- **A** possesses
- **B** posseses
- **C** posesses
- **D** poseses

Answer: A

Explanation:

Possesses is the right usage. thus, A is the answer.

Ouestion 16

In the following question, four words are given out of which one word is correctly spelt. Select the correctly spelt word.

A	murmuring
В	murmurring
С	murrmuring
D	murrmurring
-	Answer: A
	planation: rmuring is the right usage. Thus, A is the answer
Qu	estion 17
	e question below consists of a set of labelled sentences. Out of the four options given, select the most gical order of the sentences to form a coherent paragraph.
Th	ere was no need to
Y-1	set a watch, for we had nothing to fear from anybody or anything in that vast untenanted plain
A	ZYX
В	ZXY
С	YZX
D	XYZ
1	Answer: D
Th	planation: ere was no need to (X) set a watch, for we had nothing (Y) to fear from anybody or (Z)anything in that vast tenanted plain. Thus, D is the answer.
_	estion 18
	e question below consists of a set of labelled sentences. Out of the four options given, select the most gical order of the sentences to form a coherent paragraph.
Th	is idea, however startling it may at
Y-	first appear, is quite in accordance, as before stated, with the analogy of changes now going on in certain regions of the globe
A	ZYX
В	XYZ
С	ZXY
D	YZX
/	Answer: B

Explanation:

This idea, however startling it may at (X)first appear, is quite in accordance, as (Y)before stated, with the analogy of changes (Z)now going on in certain regions of the globe. Thus, B is the answer.

In the following question, a sentence has been given in Active/Passive voice. Out of the four alternatives suggested, select the one which best expresses the same sentence in Passive/Active voice.

He mailed his application for a new job.

- **A** The application for a new job is mailed by him.
- **B** The application for a new job was mailed by him.
- **C** He is the mailer of the application for a new job.
- **D** He was the mailer of the application for a new job.

Answer: B

Explanation:

The sentence is in past tense. Was should be used in passive voice. Thus, the right usage is 'The application for a new job was mailed by him'.

Question 20

In the following question, a sentence has been given in Direct/Indirect speech. Out of the four alternatives suggested, select the one which best expresses the same sentence in Indirect/Direct speech.

"Ooh! what a dirty child!" said my aunt.

- **A** My aunt exclaimed disgustedly what a dirty child.
- **B** My aunt exclaimed disgustedly that the child is very dirty.
- **C** My aunt exclaimed disgustedly that the child was very dirty.
- **D** My aunt exclaimed disgustedly what a dirty child it is.

Answer: C

Explanation:

My aunt exclaimed disgustedly that the child was very dirty. 'Was' should be used as the sentence is in past tense. Thus, option C is the answer.

Instructions

A passage is given with 5 questions following it. Read the passage carefully and choose the best answer to each question out of the four alternatives.

Genetic variation is the cornerstone of evolution, without which there can be no natural selection, and so a low genetic diversity decreases the ability of a species to survive and reproduce, explains lead author Yoshan Moodley, Professor at the Department of Zoology, University of Venda in South Africa.

Two centuries ago, the black rhinoceros - which roamed much of sub Saharan Africa - had 64 different genetic lineages; but today only 20 of these lineages remain, says the paper. The species is now restricted to five countries, South Africa, Namibia, Kenya, Zimbabwe and Tanzania. Genetically unique populations that once existed in Nigeria, Cameroon, Chad, Eritrea, Ethiopia, Somalia, Mozambique, Malawi and Angola have disappeared. The origins of the 'genetic erosion' coincided with colonial rule in Africa and the popularity of big game hunting. From the second half of the 20th century, however, poaching for horns has dramatically depleted their population and genetic diversity, especially in Kenya and Tanzania.

Ouestion 21

What is important for evolution?

A	Genetic variation
В	Large population
C	Mixing of species
D	Survival of the fittest
/	Answer: A
	planation: netic variation is the cornerstone of evolution. Thus, A is the answer.
Qu	estion 22
Su	b Sharan Africa has lost how many black rhino genetic lineages in 200 years?
A	64
В	20
С	44
D	30
1	Answer: C
Tw line	planation: To centuries ago, the black rhinoceros - which roamed much of sub Saharan Africa - had 64 different genetic leages. Thus, C is the answer. Destion 23
Ge	enetically unique black rhinoceros has been lost in all of the following countries, except?
A	Tanzania
В	Nigeria
С	Chad
D	Malawi
	Answer: A
The is p	planation: e species is now restricted to five countries, South Africa, Namibia, Kenya, Zimbabwe and Tanzania. Only, Tanzania present in the options. Thus, A is the answer. lestion 24
Fr	om the second half of the 20th century what has caused a dramatic fall in black rhinoceros population?
A	poaching
В	colonial rule
С	big game hunting
_	
D	fall in genetic diversity

Answer: A

Explanation:

From the second half of the 20th century, however, POACHING FOR HORNS has dramatically depleted their population and genetic diversity, especially in Kenya and Tanzania. Thus, A is the answer.

Ouestion 25

Genetic diversity is proportional to _____.

- A species population
- **B** the ability of a species to survive and reproduce
- **C** inbreeding
- **D** extinction

Answer: B

Explanation:

"And so a low genetic diversity decreases the ability of a species to survive and reproduce". Thus B is the answer.

Reasoning

Instructions

For the following questions answer them individually

Question 26

Select the related word from the given alternatives.

Pencil: Lead:: Pen:?

- **A** Ball
- **B** Write
- **C** Blue
- **D** Ink

Answer: D

Explanation:

The element used in a pencil to write is lead, similarly, an ink is used in a pen.

=> Ans - (D)

Question 27

Select the related letters from the given alternatives.

DGI: JMO:: RUW:?

- A XAC
- **B** WYZ

- c ACE
- **D** ZAC

Answer: A

Explanation:

It follows the sequence 'n+6'

$$D+6 = J$$
; $G+6 = M$; $I+6 = O$;

Following the same sequence,

$$R+6 = X$$
; $U+6 = A$; $W+6 = C$;

Hence Option A is correct

Question 28

Select the related number from the given alternatives.

236:472::123:?

- **A** 246
- **B** 426
- C 642
- **D** 247

Answer: A

Explanation:

It follows the sequence 'n*2'

$$236*2 = 472$$
;

Therefore, 123*2 = 246;

Question 29

Select the odd word from the given alternatives.

- **A** Car
- Jeep
- **C** Van
- **D** Cycle

Answer: D

Explanation:

All except a cycle are four wheeler vehicles, hence it is the odd one out.

Question 30

Select the odd letters from the given alternatives.

B QPOC GEDD LKJ

Explanation:

Answer: C

Every Word follows the sequence 'n-1'

1)
$$W-1 = V$$
; $V-1 = U$;

$$2)Q-1 = P ; P-1 = 0;$$

$$3)G-2 = E; E-1 = D;$$

$$4)L-1 = K; K-1 = J;$$

Option '3' does not follow the sequence. Hence Option '3' is correct.

Question 31

Select the odd number from the given alternatives.

- **A** 13
- **B** 17
- **C** 21
- **D** 23

Answer: C

Explanation:

Every number is a Prime number except '21'. Hence option C is correct

Question 32

A series is given, with one word missing. Choose the correct alternative from the given ones that will complete the series.

Laugh, Alter, Melts, Realm, Muesli,?

- A Missile
- **B** Shall
- **C** Alien
- **D** Rifle

Answer: A

Explanation:

Expression: Laugh, Alter, Melts, Realm, Muesli,?

The position of the letter 'I' in each term is shifted one place to the right.

Eg: Laugh (1st place), Alter (2nd place), Melts (3rd place), Realm (4th place), Muesli (5th place)

Thus, in the next term, 'I' will be at 6th position, and among the options, next word = Missi le

A series is given, with one term missing. Choose the correct alternative from the given ones that will complete the series.

E, H, L, O, S, ?

- A U
- **B** W
- C V
- **D** X

Answer: C

Explanation:

It follows the sequence - n+3, n+4

E+3=H; H+4=L; L+3=O; O+4=S; S+3=V;

Hence option C is correct

Question 34

A series is given, with one number missing. Choose the correct alternative from the given ones that will complete the series.

99, 90.7, 82.4, ?, 65.8, 57.5

- **A** 73.3
- **B** 74.8
- **C** 75.2
- **D** 74.1

Answer: D

Explanation:

The pattern followed is that '8.3' is subtracted from all the numbers.

99 - 8.3 = 90.7

90.7 - 8.3 = 82.4

82.4 - 8.3 = 74.1

74.1 - 8.3 = 65.8

65.8 - 8.3 = 57.5

=> Ans - (D)

Question 35

Akarsh's birthday is on Saturday 29th July. On what day of the week will be Ojas's Birthday in the same year if Ojas was born on 12th August?

- **A** Wednesday
- **B** Friday
- C Saturday
- **D** Sunday

Answer: C

Explanation:

Akarsh birthday is on 29th july (saturday) and Ojas is on 12th August. The number of days Between these 2 dates is 14 days.

Divide 14 with 7 and find the remainder,

14 % 7 = 0 (Remainder)

0-Saturday 1-Sunday 2-Monday....

12th August in the same year would be on Saturday

Hence option C is correct

Ouestion 36

The weights of 4 boxes are 30, 70, 60 and 20 kilograms. Which of the following cannot be the total weight, in kilograms, of any combination of these boxes and in a combination a box can be used only once?

- A 180
- **B** 190
- C 120
- **D** 150

Answer: B

Explanation:

1)30+70+60+20 = 180

3)30+70+20 = 120

4)70+60+20 = 150

Hence every other number can be formed using 30,70,60,20 except 190. Option 'B' is correct

Question 37

From the given words, select the word which cannot be formed using the letters of the given word.

JOSTLING

- A INLET
- **B** GLINT
- **C** INGOT
- **D** JINGO

Answer: A

Explanation:

Every word can be formed except 'INLET'. There is no 'E' in JOSTLING.

Hence option 'A' is correct.

Question 38

If PROJECT is coded as KILQVXG, then how will EGO be coded as?

A VPU
B MJN
C VTL
D SGD
Answer: C
Explanation: The decoded alphabets are in revese order sequence to the codded alphabets.
ABCD EFGHIJ KLM
ZYXWVUTSRQPON
It follows the sequence A-Z , B-Y , C-X
EGO is decoded as VTL.
Hence option C is correct.
Question 39
In a certain code language, '+' represents 'x', '-' represents '+', 'x' represents ' \div ' and ' \div ' represents '-'. What is the answer to the following question?
75 - 5 + 25 ÷ 125 = ?
A 5
B 10
C 3
C 3
c 3b 75
C 3 D 75 Answer: D Explanation:
C 3 D 75 Answer: D Explanation: Equation can be written as,
C 3 D 75 Answer: D Explanation: Equation can be written as, $75+5\times25-125$
C 3 D 75 Answer: D Explanation: Equation can be written as, $75+5\times25-125$ From BODMAS Rule,
C 3 D 75 Answer: D Explanation: Equation can be written as, $75+5\times25-125$ From BODMAS Rule, $75+125-125=75.$

- **A** 36
- **B** 42
- **C** 40
- **D** 49

Answer: B

Explanation:

It follows the sequence - (n1+n2) imes 2

$$(15+7) \times 2 = 44;$$

$$(5+4) \times 2 = 18;$$

$$(6+17) \times 2 = 46;$$

For 17@4

$$(17+4) \times 2 = 42;$$

Hence Option 'B' is correct.

Question 41

Select the missing number from the given responses?

116	94	135	
21	?	87	
95	47	48	

- **A** 48
- **B** 47
- **C** 144
- **D** 94

Answer: B

Explanation:

In each column, the number in the first cell is obtained by adding the other two.

Eq:
$$21 + 95 = 116$$

and
$$87 + 48 = 135$$

Similarly,
$$47 + x = 94$$

$$=> x = 94 - 47 = 47$$

Question 42

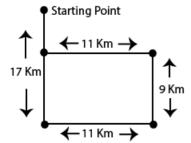
A car travels 17 km South, then turns East and travels 11 km, then turns North and travels 9 km, then turns to its left and travels 11 km. Where is the car now with reference to its starting position?

- A 8 km North
- **B** 8 km South
- C 26 km South
- D 26 km North

Answer: B

Explanation:

From the reference point it is at a distance of 8kms (17-9Kms) towards south.



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

Statement 1 : No shirts are t-shirts.
Statement 2 : All t-shirts are cotton.
Conclusion I : Some shirts are cotton.

Conclusion II: No t-shirts are shirts.

A Only conclusion I follows

B Only conclusion II follows

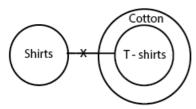
C Both I and II follow

Neither I nor II follows

Answer: B

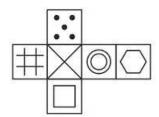
Explanation:

From the diagram, Only conclusion II follows.



Question 44

Which of the following cube in the answer figure cannot be made based on the unfolded cube in the question figure?







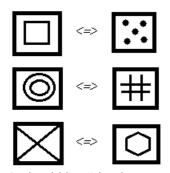


D None of these

Answer: A

Explanation:

When we fold the given figure, the side with a 'square' sign will become the base of the cube and the side with '5 dots' sign will become top, and thus they will face each other. Similarly, the sides which will face each other will be:

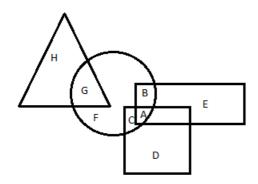


It should be # in place concentric on top surface.

=> Ans - (A)

Question 45

In the following figure, square represents Artists, triangle represents Military officers, circle represents collectors and rectangle represents Fathers. Which set of letters represents collectors who are either military officers or fathers?



A F,C

B D,E

C A,B,G

D H,E,D

Answer: C

Explanation:

We need Collectors who are Military + Collectors who are Fathers

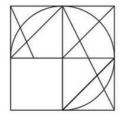
So Pick the letters Which are in both circle and Triangle + Circle and Rectangle.

A,B,G Satisfies the condition.

Hence Option C is correct.

Question 46

Which answer figure will complete the pattern in the question figure







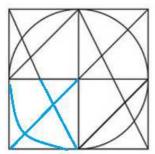




Answer: C

Explanation:

When we complete the above figure, we get :

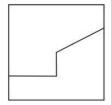


Now, the third figure resembles the above missing part in blue colour.

=> Ans - (C)

Question 47

From the given answer select in one in which the question figure is hidden $\/$ embedded







В



C



D



Answer: C

Explanation:

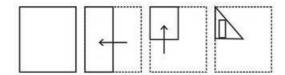
The question figure is embedded in the following figure :



=> Ans - (C)

Question 48

A piece of paper is folded and punched as shown below in the question figures. From the given answer figures, indicate how it will appear when opened.











C

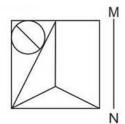




Answer: B

Question 49

If a mirror is placed on the line MN, then which of the answer figures is the right image of the given figure?



















Answer: B

Explanation:

A vertical mirror is placed, so the object at the left will appear at the right and vice-versa. So, the triangle originally pointing at bottom right will now point bottom left in the mirror image.

Also, the circle in the top left corner will appear at top right, thus second option is the mirror image of the question figure.

=> Ans - (B)

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 as shown in the given two matrices. The columns and rows of Matrix-I are numbered from 0 to 4 and that of Matrix-II are numbered from 5 to 9. A letter from these matrices can be represented first by its row and next by its column, for example 'K' can be represented by 41, 34 etc and 'Z' can be represented by 75, 86 etc. Similarly, you have to identify the set for the word 'PAWN'.

		Mati	rix - I		
	0	1	2	3	4
0	L	E	D	E	Α
1	Н	J	С	M	J
2	В	L	- 1	Α	- 1
3	L	E	В	Н	K
4	F	К	G	D	ī

		Matr	ix - II		
	5	6	7	8	9
5	R	Z	Q	R	N
6	Υ	U	Υ	Т	0
7	Z	R	W	Т	S
8	X	Z	0	S	Z
9	U	0	Υ	0	Р

A 44.10.87.55

B 99,23,77,59

C 03,40,86,65

D 31,31,59,66

Answer: B

Explanation:

P is coded as 99; A is coded as 04,23; W is coded as 77; N is coded as 59;

Code for P - 99 is in only Option B.

General Awareness

Instructions

For the following questions answer them individually

Question 51

Who is the present RBI Governor?

- A Urjith patel
- **B** Shaktikanta Das
- C Raghuram Rajan
- **D** Viral Acharaya

Answer: B

Question 52

Goods for which demand move in the opposite direction of the income of the consumer are called?

A Inferior goods

В	Normal goods
С	Complementary goods
D	Substitute goods
A	nswer: A
Qu	estion 53
	opulation control and family planning" is listed in the list given in the Seventh Schedule in constitution of India.
A	Union
В	State
С	Global
D	Concurrent
Δ	nswer: D
Qu	estion 54
 inf	is issued when the court finds that a particular office holder is not doing legal duty and thereby is ringing on the right of an individual.
A	Habeas Corpus
В	Mandamus
С	Prohibition
D	Quo Warranto
Δ	Answer: B
-	estion 55
	cording to the categories of land mentioned in the Chola inscriptions was known as the land nated to Jaina institutions?
A	Vellanvagai
В	Brahmadeya
С	Shalabhoga
D	Pallichchhandam
A	answer: D
Qu	estion 56
Pri	nce Khurram was the name of the future Emperor
A	Shah Jahan
В	Jahangir

С	Babur
D	Akbar
A	Answer: A
Qu	estion 57
_	are defined as the mass movement of rock, debris or earth down a slope.
	Forth works
A	Earthquake
В	Cyclone
С	Flood
D	Landslide
P	Answer: D
_	estion 58
	e material carried by the glacier such as rocks big and small, sand and silt gets deposited, which are led glacial
A	moraines
В	deltas
С	plateaus
D	grooves
P	Answer: A
Qu	estion 59
	sed on the common features like presence of notochord and dorsal hollow neural system, animals like
tis	hes, amphibians, reptiles, birds along with mammals are included in which Phylum?
A	Mammalia
В	Chordata
С	Primata
D	Insecta
A	Answer: B
Qu	estion 60
Th	e members of phaeophyceae are commonly called algae.
A	Green
В	Brown
С	Red

D	Yellow
A	Answer: B
Qu	estion 61
As	terias (Star fish), Echinus (Sea urchin), Antedon (Sea Lily) are all examples of which Phylum?
A	Echinodermata
В	Annelida
С	Platyhelminthes
D	Arthropoda
A	Answer: A
Qu	estion 62
Du	ring uniform motion of an object along a straight line, the remains constant with time.
A	Time
В	Velocity
С	Acceleration
D	Distance
A	Answer: B
Qu	estion 63
Th	e impression of an image persists on the retina for about of a second.
A	1/10th
В	1/8th
С	1/16th
D	1/5th
A	Answer: C
Qu	estion 64
In	Microsoft Word, allows us to move selected paragraphs to the left.
A	Decrease Indent
В	Increase Indent
С	Double Indent
D	Single Indent

Qu	estion 65
Ac	etic Acid is another name for which of the following?
A	Vinegar
В	Baking Soda
C	Copper Sulphate
D	Magnesium Oxide
A	Answer: A
Qu	estion 66
Th	e reaction of Copper Sulphate and Iron produces Iron Sulphate and
A	Vinegar
В	Ash
С	Baking Soda
D	Copper
A	Answer: D
	estion 67
A 1	ew organisms can tolerate and thrive in a narrow range of temperatures. Such organisms are called
Δ	Osmotic
	Eurythermal
	Stenothermal
	Hydrothermal
	Answer: C
<u> </u>	estion 68
Qu	scheme was launched by the Central Government in the state of Bihar to provide clean water
of	the Ganges to domestic areas via postal services.
A	Gangajal Delivery Scheme
В	Mission Bhagiratha In Telangana
C	National Apprenticeship Promotion
D	Railway Travel Insurance

Answer: A

Answer: A

Question 69 Who discovered Electron? A Enrico Fermi Robert Noyce C J.J.Thomson **D** James Dyson Answer: C **Question 70** Which country won the 2016 Men's Kabaddi World Cup? **A** India **B** Thailand **C** Pakistan **D** Iran Answer: A **Question 71 Mattancherry Palace is located in?** West Bengal Kerala Rajasthan D Karnataka Answer: B **Question 72** Which award is given by the Government of India to recognize outstanding achievement in National sports?

A Ashok Chakra

C Arjuna Award

D Padma Shri**Answer:** C

B Dada Saheb Phalke Awards

Question 73 Which of the statements given below are not correct? 1. The author of the novel 'A Visit from the Goon Squad' is Edward P Jones. 2. The author of the novel 'The Corrections' is Jonathan Franzen. 3. The author of the novel 'The Known World' is Jennifer Egan. **A** 1 and 2 **B** 2 and 3 **C** 1 and 3 **D** 1. 2 and 3 Answer: C **Question 74** In April 2017, the G20 Digital Ministerial Meeting on Digital Economy was held in which country? **A** Italy Germany France **D** USA Answer: B **Question 75** Which is the only train which runs between Kolkata and Dhaka?

A Dosti Express

B Maitree Express

C Bangla Express

D Padma Express

Answer: B

Mathematics

Instructions

For the following questions answer them individually

Question 76

Select the correct option:

Convert decimal 99 to binary.

A 1100101

B 1101001

11100011 1100011 Answer: D

_			П	_		_	ti	_		-
_	х	n	п	а	n	а	ТΙ	n	n	=

2	99
2	49-1
2	24-1
2	12-0
2	6-0
2	3-0
	1-1

from the diagram $(99)_{10} = (1100011)_2$

so the answer is option D.

Question 77

Anil is twice as good as workman as Bimal and together they finish a piece of work in 9 days. In how many days will Anil alone finish the work?

- **A** 12.5
- **B** 11.5
- C 10.5
- **D** 13.5

Answer: D

Explanation:

efficiency of A = 2*efficiency of B.

In 1 day they can complete 3units of work

In 9 days they can complete 27units of work

To complete 27units of work, A took 27/2 days = 13.5 days.

so the answer is option D.

Question 78

What is the area (in sq cm) of a circle whose circumference is 22 cm?

- **A** 77
- **B** 38.5
- **C** 44
- **D** 88

Answer: B

Explanation:

 $2\pi r = 22$

$$2 imes \overset{22}{7} imes r=22$$

$$r = 3.5cm$$

$$Area = \pi r^2 = {22 \atop 7} imes 3.5 imes 3.5 = 38.5 cm^2$$

so the answer is option B.

Ouestion 79

The cost price of an article is x. It is marked up by 150%. It is sold at Rs 600 after giving 40% discount. What is x (in Rs)?

- **A** 400
- **B** 666
- **C** 300
- **D** 444

Answer: A

Explanation:

It is marked up by 150% and 40% discount is allowed

$$SP = {}^{100-40}_{100} \times {}^{100+150}_{100} \times CP$$

$$\Rightarrow 600 = {}^{60}_{100} \times {}^{250}_{100} \times CP$$

$$\Rightarrow CP = 400$$

so the answer is option A.

Question 80

A bag has Rs.51.25 in the form of 2-rupee, 50-paise and 25-paise coins in the ratio of 3:5:7. What is the total number of 50-paise coins?

- **A** 15
- **B** 35
- **C** 25
- **D** 5

Answer: C

Explanation:

Let
$$2/-$$
 coins $= 3x$

$$50$$
paise coins = $5x$

25 paise coins =
$$7x$$

toal amount
$$= 51.25$$

$$(3x)(2)+(5x)(0.5)+(7x)(0.25) = 51.25$$

$$10.25x = 51.25$$

$$x = 5$$

No. of 50 paise coins =
$$5x = 5(5) = 25$$

so the answer is option C.

In the first 40 overs of a 50 over innings, the run rate was 4.8 runs/over. What is the required run rate in the remaining 10 overs to reach the target of 241 runs?

- **A** 6.7
- **B** 6.5
- **C** 6.3
- **D** 4.9

Answer: D

Explanation:

Runs After 40 overs = 40*4.8 = 192

required runs = 241 - 192 = 49

remaining overs = 50 - 40 = 10

required run rate = 49/10 = 4.9

so the answer is option D.

Question 82

A milkman buys milk at Rs 25 per litre and adds 1/4 of water to it and sells the mixture at Rs 26 per litre. His gain (in %) is?

- **A** 25
- **B** 20
- **C** 30
- **D** 15

Answer: C

Explanation:

Let he buy 4 litres

$$CP = 4*25 = 100$$

he add 1/4th quantity = 1 litre of water

now total quantity = 5 litres

he sold at 26 per litre

$$SP = 5*26 = 130$$

gain = 30

%gain =
$$^{30}_{100} \times 100 = 30\%$$

so the answer is option C.

Question 83

When a number is increased by 120, it becomes 130% of itself. What is the number?

- **B** 520
- **C** 460
- **D** 580

Answer: A

Explanation:

$$X + 120 = 1.3X$$

$$0.3X = 120$$

$$X = 400$$

so the answer is option A.

Question 84

Two cyclists P and Q cycle at 20 km/hr and 25 km/hr towards each other. What was the distance (in kms) between them when they started if they met after 56 minutes?

- **A** 36
- **B** 39
- **C** 42
- **D** 45

Answer: C

Explanation:

Distance b/w them = distance travelled by P + distance travelled by Q= $20 \times \frac{56}{60} + 25 \times \frac{56}{60} = 45 \times \frac{56}{60} = 42$ So the answer is option C.

Question 85

The amount received at 10% per annum Compound interest after 3 yrs is Rs 5324. What was the principal (in Rs)?

- **A** 4100
- **B** 4200
- **C** 4000
- **D** 4300

Answer: C

Explanation:

Total time =
$$P \times (1 + {100 \atop 100})^n$$

$$\Rightarrow 5324 = P \times (1 + {100 \atop 100})^3$$

$$\Rightarrow 5324 = P \times (1 + \stackrel{1}{10})^3$$

$$\Rightarrow 5324 = P \times (\stackrel{11}{10})^3$$

$$\Rightarrow 5324 = P \times \overset{11}{10} \times \overset{11}{10} \times \overset{11}{10} \times \overset{11}{10}$$

$$\Rightarrow P = 4000$$

If 14/3 + (1/2)(x - 7/3) = -2x/3, then the value of x is?

- **A** -3
- **B** 3
- **C** 6
- **D** -6

Answer: A

Explanation:

14/3 + (1/2)(x - 7/3) = -2x/3

$$\Rightarrow 14/3 + x/2 - 7/6 = -2x/3$$

$$\Rightarrow 21/6 = -7x/6$$

$$\Rightarrow x = -3$$

So the answer is option A.

Question 87

If a + b = 10 and ab = 24, then what is the value of $a^3 + b^3$?

- **A** 280
- **B** 152
- **C** 140
- **D** 72

Answer: A

Explanation:

$$a^3 + b^3 = (a+b)^3 - 3(ab)(a+b) = 10^3 - 3(24)(10) = 1000 - 720 = 280$$

so the answer is option A.

Question 88

The sum of a fraction and 3 times its reciprocal is 19/4. What is the fraction?

- **A** 3/4
- **B** 4/3
- **C** 5/4
- **D** 4/5

Answer: A

Explanation:

Let that fraction be x

$$\frac{1}{x} + 3x = \frac{19}{4}$$

$$\Rightarrow (1+3x^2)={}^{19}_4 imes x$$

$$\Rightarrow 12x^2 - 19x + 4 = 0$$

$$\Rightarrow (x - \frac{16}{12})(x - \frac{3}{12}) = 0$$

$$\Rightarrow (x - \frac{4}{3})(x - \frac{1}{4}) = 0$$

$$\Rightarrow x = 4/3 or 1/4$$

$$\Rightarrow$$
 fraction = $\frac{1}{x} = 3/4(or)4$

so the answer is option A.

Question 89

The 3rd and 6th term of an arithmetic progression are 13 and -5 respectively. What is the 11th term?

- **A** -29
- **B** -41
- **C** -47
- **D** -35

Answer: D

Explanation:

$$T_3 = a + 2d = 13$$
----(1)

$$T_6 = a + 5d = -5$$
----(2)

on solving (1) AND (2)

$$d = -6 \& a = 25$$

$$T_{11} = a + 10d = 25 + 10(-6) = -35$$

so the answer is option D.

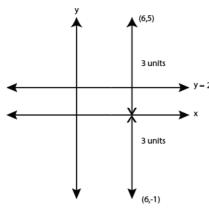
Question 90

What is the reflection of the point (6, -1) in the line y = 2?

- **A** (-2,-1)
- **B** (-6,5)
- **C** (6,5)
- **D** (-2, 1)

Answer: C

Explanation:



From the diagram, the reflection of the point (6, -1) in the line y = 2 is (6, 5) so the answer is option C.

Question 91

Point P (8, 5) is the midpoint of segment AB. Co-ordinates of A are (5, y) and B are (x, -3). What is the value of x?

- **A** -11
- **B** 11
- **C** 7
- **D** -7

Answer: B

Explanation:

 $\begin{array}{l} \text{Mid-point} = \left(\begin{smallmatrix} x_1+x_2 \\ 2 \end{smallmatrix}, \begin{smallmatrix} y_1+y_2 \\ 2 \end{smallmatrix} \right) \ \Rightarrow \ \begin{smallmatrix} 5+x \\ 2 \end{smallmatrix} = 8 \Rightarrow x = 16-5 = 9 \end{array}$

so the answer is option B.

Question 92

What is the equation of a line of slope 1/3 and y-intercept 5?

- **A** x 3y = -15
- **B** x 3y = 15
- **C** x + 3y = -15
- **D** x + 3y = 15

Answer: A

Explanation:

$$y = mx + c$$

$$y = x/3 + 5$$

$$3y = x + 15$$

$$x - 3y = -15$$

so the answer is option A.

Question 93

ΔABC is right angled at B. BD is an altitude. AD = 3 cm and DC = 9 cm. What is the value of AB (in cm)?

- **A** 6
- **B** 5
- **C** 4.5
- **D** 5.5

Answer: A

Explanation:

(diagram)

 ΔABC and ΔADB are similar

AC/AB = AB/AD

12/x = x/3

 $36 = X^2$

X = 6

So the answer is option A.

Question 94

What is the value of Cot 60° - Sec 45°?

- **A** $(\sqrt{2} \sqrt{3})/\sqrt{6}$
- **B** $(\sqrt{3} 3\sqrt{2})/3$
- **C** $(1 2\sqrt{2})/2$
- **D** $(1 \sqrt{3})/2$

Answer: B

Explanation:

Cot 60°- Sec 45° =
$$\sqrt[1]{3} - \sqrt{2} = \sqrt[1-\sqrt{6}]{3} \times \sqrt[3]{3} = \sqrt[3]{3} - \sqrt{3}$$

so the answer is option B.

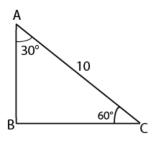
Question 95

 \triangle ABC is right angled at B. If m \angle A = 30°, what is the length of AB (in cm), if AC = 10 cm?

- **A** 5
- **B** 5√3
- **C** 10√3
- **D** 10

Answer: B

Explanation:



from the diagram,

$$\sin C = AB \\ AC$$

$$\sin 60 = {}^{AB}_{10}$$

$${\stackrel{\sqrt{3}}{2}} = {\stackrel{AB}{10}}$$

$$AB = 5\sqrt{3}$$

So the answer is option B.

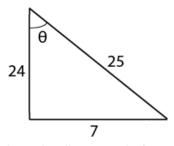
Question 96

If Cot $\theta = 24/7$, then Sin $\theta = ?$

- **A** 24/25
- **B** 8/25
- **C** 7/25
- **D** 9/25

Answer: C

Explanation:

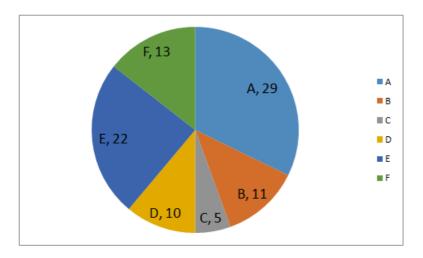


from the diagram, $\sin \theta = \text{opp/hyp} = 7/25$

So the answer is option C.

Instructions

The pie chart shows the share of tiger population six Wild life sanctuaries (A, B, C, E, E, F) of a country. Study the diagram and answer the following questions.



Which wild life sanctuary has more tigers than D but less than F?

A C

B A

C E

D B

Answer: D

Explanation:

D has 10 tigers

F has 13 tigers

so, only B with 11 tigers, has more tigers than D but less than F

So the answer is option D.

Question 98

What will be the total number of tigers left in the six sanctuaries, if 3 tigers are killed by poachers in sanctuary E and 9 tigers are added to sanctuary A?

A 93

B 96

C 99

D 95

Answer: B

Explanation:

Total tigers = 29+11+5+10+22+13 = 90

if 3 tigers are killed by poachers in sanctuary E and 9 tigers are added to sanctuary A, then remaining tigers = 90-3+9=96

So the answer is option B.

What is the ratio of tigers in sanctuaries E and F to that of tigers in sanctuaries D and C?

- **A** 3:7
- **B** 7:3
- **C** 5:2
- **D** 2:5

Answer: B

Explanation:

Tigers in E and F = 22 + 13 = 35

Tigers in D and C = 10+5 = 15

Ratio = 35:15=7:3

So the answer is option B.

Question 100

If the total tiger population in these six sanctuaries had grown by 20% and 25% in the previous two decades, then what was the total tiger population in these six sanctuaries before 20 years?

- **A** 135
- **B** 150
- **C** 60
- **D** 45

Answer: C

Explanation:

Let X be the no.of tigers before 20yrs,

then there is increase of 20% & 25% over last two decades

$$\Rightarrow ({}^{100+20}_{100})({}^{100+25}_{100})(X) = 90$$

$$\Rightarrow \binom{120}{100}\binom{125}{100}(X) = 90$$

$$\Rightarrow X = 60$$

So the answer is option C.