## OSSSC PEO \& JA 2023 Solved Paper with Detail Solutions (SET - C)

## PART - I

ENGLISH: 40 Marks

Instructions: Each question under this part carries ONE mark. Please read the instructions carefully and answer the questions by selecting the most appropriate answer out of the multiple answers given below each as A, B, C \& D.

There shall be negative marking @ 0.5 mark per question for wrong/multiple answers.
Instruction for questions 1 to 4: Find out the wrongly spelt word.

1. (A) National
(B) Anthem
(C) Business
(D) Trycolour
2. (A) Usual
(B) Actual
(C) Arival
(D) Approval
3. (A) Patrol
(B) Incom
(C) Village
(D) Enough
4. (A) Independenc
(B) Foreigner
(C) Partition
(D) Trader

| Answers | Explanation |
| :--- | :--- |
| 1. (D) | Trycolour is the wrongly spelt word. The word Trycolour is not a real word. The correct spelling of the <br> word is Tricolour, which means a flag with three colors. |
| 2. (C) | Arival is the wrongly spelt word. The word Arival is not a real word. The correct spelling of the word is <br> Arrival, which means the act of coming to a place. |
| 3. (B) | Incom is the wrongly spelt word. The word Incom is not a real word. The correct spelling of the word is <br> Income, which means the money that a person or organization receives regularly, especially as a salary <br> or wages. |
| 4. (A) | Independenc is the wrongly spelt word. The word Independenc is not a real word. The correct spelling <br> of the word is Independence, which means the state of not being subject to the control of another <br> country or power. |

## Instruction for questions 5 to 8: Find out the correctly spelt word.

5. (A) Application
(B) Applecation
(C) Aplication
(D) Applicasion
6. (A) Addmision
(B) Admission
(C) Admision
(D) Admmision
7. (A) Wellcome $\quad$ (B) Welcom $\quad$ (C) Welcome $\quad$ (D) Wellcom
8. (A) Urggent
(B) Urrggent
(C) Urrgent
(D) Urgent

| Answers | Explanation |
| :--- | :--- |
| 5. (A) | The correctly spelled word is Application. The other options are misspelled. |
| 6. (B) | The correctly spelled word is Admission. The other options are misspelled. |
| 7. (C) | The correctly spelled word is Welcome. The other options are misspelled. |
| 8. (D) | The correctly spelled word is Urgent. The other options are misspelled. |

## Instruction for questions 9 to 12: Choose the most correct/appropriate option.

9. I $\qquad$ have won the match; but sadly I lost.
(A) will
(B) dare to
(C) need to
(D) could
10. There $\qquad$ be a famous sweet shop here 20 years back.
(A) was to
(B) would
(C) used to
(D) should
11. We $\qquad$ always respect our elders.
(A) could
(B) should
(C) can
(D) may
12. All students $\qquad$ obey the school regulations to maintain discipline.
(A) must
(B) are able to (C) could
(D) will

| Answers | Explanation |
| :--- | :--- |
| 9. (D) | The most correct/appropriate option is could. <br> I could have won the match; but sadly I lost. |
| 10. (C) | The most correct/appropriate option is used to. <br> There used to be a famous sweet shop here 20 years back. |
| 11. (B) | The most correct/appropriate option is should. <br> We should always respect our elders. |
| 12. (A) | The most correct/appropriate option is must. <br> All students must obey the school regulations to maintain discipline. |

## Instruction for questions 13 to 20:

Fill in the blanks of the paragraph written below with most suitable/appropriate word from the options given against each question as indicated in the blanks.
"Milk is a $\qquad$ food, full of vitamins and proteins. Children should drink it _ $\qquad$ otherwise they might (Q. 15) from under-nourishment. Elders must also (Q. 16) it; but those who cannot $\qquad$ it should eat fruits and vegetables as an (Q. 18). We should (Q. 19) milk of good quality from milk booths (Q.20) by government."

| 13. (A) complete | (B) completely (C) Completing (D) completion |  |  |
| :--- | :--- | :--- | :--- |
| 14. (A) regularity | (B) regulately | (C) regulatingly | (D) regularly |
| 15. (A) sufferingly | (B) suffer | (C) suffering | (D) suffered |
| 16. (A) taken | (B) taking | (C) take | (D) took |
| 17. (A) affordance | (B) affording | (C) afford | (D) afforded |
| 18. (A) alternation | (B) alteration | (C) alter | (D) alternative |
| 19. (A) purchase | (B) purchasingly | (C) purchased | (D) purchasing |
| 20. (A) openingly | (B) opened | (C) open | (D) opening |


| Answers | Explanation |
| :---: | :---: |
| 13. (A) | "Milk is a complete food, full of vitamins and proteins. Children should drink it regularly__otherwise they might suffer from under-nourishment. Elders must also take it; but those who cannot afford it should eat fruits and vegetables as an alternative. We should purchase milk of good quality from milk booths opened by government." |
| 14. (D) |  |
| 15. (B) |  |
| 16. (C) |  |
| 17. (C) |  |
| 18. (D) |  |
| 19. (A) |  |
| 20. (B) |  |

Instruction for questions 21 to 24:
Arrange the words (parts of a sentence) properly to form a correct sentence.
21. few places / take rest /on the / there were / to / way
(A) Places there to take rest were few on the way.
(B) There were few places the way to take rest on.
(C) There were few places to take rest on the way.
(D) The way to take rest on few places were there.
22. wheel /is/man's / the / invention / greatest / perhaps
(A) The wheel is perhaps man's greatest invention.
(B) The wheel is man's greatest perhaps invention.
(C) Perhaps the greatest invention is man's wheel.
(D) Perhaps wheel is man's greatest the invention.
23. very difficult / it was / to travel / earlier / long distances
(A) It was very difficult earlier travel to long distances.
(B) It was difficult to very travel long distances earlier.
(C) Earlier long distances was very difficult to travel it.
(D) Earlier it was very difficult to travel long distances.
24. backs/ their belongings / travellers carried / on their
(A) Belongings carried their travellers on their backs.
(B) Travellers carried their belongings on their backs.
(C) Their travellers carried on belongings on their backs.
(D) Their backs carried their belongings on travellers.

| Answers | Explanation |
| :--- | :--- |
| 21. (C) | The correct sentence is (C), There were few places to take rest on the way. |
| 22. (A) | The correct sentence is (A), The wheel is perhaps man's greatest invention. |
| 23. (D) | The correct sentence is (D), Earlier it was very difficult to travel long distances. |
| 24. (B) | The correct sentence is (B), Travellers carried their belongings on their backs. |

## Instruction for questions 25 to 27:

Fill in the blanks of the paragraph written below with the most suitable/appropriate passive voice from the options given against each question as indicated in the blanks.
"How to make a cup of tea
In order to make a cup of tea, boiled water (Q.25). Then a spoonful of sugar (Q. 26) to it. Some milk (Q. 27) . A cup of tea is ready."
25. (A) pour into a cup
(B) is poured into a cup
(C) has been poured into a cup
(D) had been pour into a cup
26. (A) will be added
(B) add
$(\mathrm{C})$ is added
(D) added
27. (A) is put in it and stirred
(B) is putted in it and stir
(C) had been put in it and stirred
(D) put in it and stir

| Answers | Explanation |
| :--- | :--- |
| $25 .(\mathrm{B})$ | "How to make a cup of tea |
|  | 26. (C) |
|  |  |

## Instruction for questions 28-30:

Choose the best/appropriate meaning of the underlined words.
28. As directed by my boss, I have prepared the meeting agenda.
(A) list of food items be served in the meeting
(B) issues to be discussed in the meeting
(C) persons to be present in the meeting
(D) agencies to be present in the meeting
29. Korapat district of Odisha, which is a very hilly district, boasts of many perennial streams that help in local agriculture.
(A) streams supplying water for irrigation
(B) streams flowing only during rainy season
(C) streams flowing from hills and forest
(D) streams flowing round the year
30. Amongst seasonal fruits, I like mango the best for its sweetness.
(A) not available in all seasons
(B) available in the local area
(C) available in all seasons
(D) tastes sweet

| Answers | Explanation |
| :--- | :--- |
| 28. (B) | The best/appropriate meaning of the underlined words is (B), issues to be discussed in the meeting. <br> The word agenda refers to a list of topics or points to be discussed at a meeting. |
| 29. (D) | The answer is (D), streams flowing round the year. <br> The word perennial means lasting or existing for a very long time. In this context, it refers to streams <br> that flow all year round, even during the dry season. |
| 30. (A) | The answer is (A), not available in all seasons. <br> The word seasonal means available or occurring at a particular time of year. In this context, it means <br> that mangoes are only available during certain seasons. |

31. They $\qquad$ the train if they do not hurry.
(A) will miss
(B) will have missed
(C) are missing (D) miss
32. I try to visit my relatives in my home town $\qquad$ other month.
(A) any
(B) every
(C) each
(D) some
33. The dentist cleaned my $\qquad$ with some liquid.
(A) teeth
(B) teeths
(C) tooth
(D) tooths
34. The crowd $\qquad$ restless as the day got hotter.
(A) were getting
(B) will get
(C) was getting
(D) is getting
35. Your writing is bad but mine is $\qquad$ $\ldots$.
(A) worst
(B) better
(C) badder
(D) worse

| Answers | Explanation |
| :--- | :--- |
| 31. (A) | The correct answer is (A), will miss. <br> They will miss the train if they do not hurry. |
| 32. (B) | The correct answer is (B), every. <br> I try to visit my relatives in my home town every other month. <br> 33. (A) <br> 34. (C) <br> The correct answer is (A), teeth. <br> The dentist cleaned my teeth with some liquid. The word teeth is the plural form of tooth. <br> 35. (D) <br> The correct answer is (C), was getting. <br> The crowd $\boldsymbol{\text { was }}$ getting restless as the day got hotter. <br> Worse and worst are different word forms of the word bad. Worse is the comparative form of bad, <br> while worst is the superlative form of bad. The word worse compares two items or actions in terms of <br> how bad they are, while the word worst expresses the highest degree of badness. <br> Therefore, the correct answer is (D), worse. <br> Your writing is bad but mine is worse. |

## Instruction for questions 36-40:

## Read the paragraph given below and answer the questions.

At least 21 people, including six children, were killed when an overcrowded tourist boat sank in
Poorapuzha river in Tanur in Kerala's Malappuram district on Sunday evening. Rescue workers said the houseboat carrying around 35 tourists, against its sanctioned capacity of 20 , over-turned during a joyride around 7 pm . The operator had permission to run the service only till 6 pm . According to survivors, the boat swayed and suddenly overturned trapping the tourists underneath the vessel. It is said there were not enough life jackets onboard. Fishermen said the river is deep at the accident spot and rescuing the people who were caught underneath the boat was a tough task. Tanur municipal chairman P P Shamsudheen said the private party operating the boat carried more people than allowed. "That was the reason for the accident," he said. Many of those who died were women and children who had come for a ride amid the ongoing school vacations.
36. Rescuing the people was difficult because
(A) being a Sunday, government officials were not available
(B) the boat was carrying excess people
(C) the river was deep at the accident place
(D) the people were mainly tourists
37. What other rule violation was committed by the boat?
(A) operating on a government holiday
(B) operating the service after $6 \mathbf{~ p m}$
(C) carrying tourists in the boat without swimming test
(D) carrying children in the boat
38. Who should be responsible for not having enough life jackets?

PEO \& JA, RI, ARI, AMIN, SFS, FOREST GUARD, LIVESTOCK INSPECTOR, B.Ed, SSC, BANK, RAILWAY, TEACHING EXAMS \& ALL OTHER STATE EXAMS

12 Months Validity
(A) the rescue team
(B) the local fishermen
(C) the boat operator
(D) the tourists themselves who were supposed to have their own life jackets
39. Approximately how many extra persons were in the boat beyond its sanctioned capacity?
(A) 20
(B) 35
(C) 21
(D) 15
40. The boat overturned because
(A) there were not enough life jackets
(B) the river was deep
(C) there were many children and women
(D) there were more people than the allowed limit

| Answers | Explanation |
| :--- | :--- |
| 36. (C) | The correct answer is (C), the river was deep at the accident place. <br> The paragraph states that the river was deep at the accident place, which made it difficult to rescue the <br> people who were caught underneath the boat. |
| 37. (B) | The correct answer is (B), operating the service after 6 pm. <br> The paragraph states that the operator had permission to run the service only till 6 pm. However, the <br> boat was operating after 6 pm, which is a violation of the rules. |
| 38. (C) | The correct answer is (C), the boat operator. <br> The paragraph states that there were not enough life jackets onboard. This is the responsibility of the <br> boat operator, who is supposed to ensure that there are enough life jackets for all passengers. |
| 39. (D) | The sanctioned capacity of the boat was 20, but there were 35 tourists on board. So, approximately 15 <br> extra persons were in the boat beyond its sanctioned capacity. <br> So the answer is (D). |
| 40. (D) | The boat overturned because there were more people than the allowed limit. The paragraph states that <br> the boat was carrying around 35 tourists, against its sanctioned capacity of 20. This means that the boat <br> was overloaded, which made it more likely to overturn. <br> Even the municipal chairman said that the reason for the accident was due to the boat carrying more <br> people than allowed. So the answer is (D). |

## PART－II

## ODIA： 35 Marks





（a）ฮ८6ด 869 थ｜ฮิฉ！


（d）थ｜ธิ 6868 ช｜ฉึษ？

S41．Ans．（a）
Sol．ઘ860 869 ๆાવิฐ！


（a）氏ถाशด｜
（b） ad
（c） 1 （18 9
（d）毋1ด6

S42．Ans．（c）
Sol．alçe





S43．Ans．（d）




S44．Ans．（d）
Sol．व｜民｜g


S45. Ans. (a)
Sol. ๆ|ธ11ष


S46. Ans. (b)
Sol. ๑โ్ర氏์ல


S47. Ans. (b)
Sol. g684\% 6miตหケ|6ด


S48. Ans. (c)
Sol. ถิ6ด|1



S49. Ans. (a)
Sol. बા|્ઞ|વิธ


S50. Ans. (b)
Sol. פฺฺ6ઘ|สิఠ|


S51. Ans. (c)
Sol. ஐด6กฉด


S52. Ans. (d)


53．囚｜றู வメ｜ロด｜

（b）વธ์ด｜ธ ตถิธ｜


S53．Ans．（a）



（a）ขธิ ดิซ్ణાવ
（b）V® ถิદิथा
（c）ข®ิ షूष্ণ
（d）ศธ์ Ө｜ळึロ｜
S54．Ans．（b）


（a）ถิริช 6๕ฉา
（b）आ｜8Q 6民ด｜
（c）ஷุथા घถิฐศ
（d）घपर्थ 6®ロ।

S55．Ans．（c）


Sol．ถุથા ઘถิฤๆ
56．ถิఠा ตाடิด।


（c）पุஞl মถิธ।
（d）थடฯฯั Оลิธ।
S56．Ans．（d）
Sol．ขถฯฐ Оดึด



（b）6agl श 6891








S58. Ans. (b)
Sol. ตूa ধচ్ఞळ


(b) य1Q ฉथा6Q ลฉลิ ฉธા



S59. Ans. (c)







S60. Ans. (d)
Sol. વヘ|6Q \&|త్ ఆ|ळึథ|

61. On holidays, I prefer to stay at home than going out.


(c) \& ళె


S61. Ans. (a)

62. His bicycle is better than mine.





S62. Ans. (b)

63. Don't let your family suffer for your negligence.





S63. Ans. (c)

64. He has been staying in Malkangiri since his childhood.




S64. Ans. (c)

65. He called a taxi for me.





S65. Ans. (d)
Sol. 69 6Яा घ|ถั 66166 万|

## 


 ル®झถQ V











S66. Ans. (d)


(a) 60006 ดึ $\frac{\text { T }}{}$
(b) 5300 6 6 / $\mathfrak{6}$
(c) 2500 6ึाส
(d) 35006 \% 16

S67. Ans. (c)
Sol. 2500 6ดा


(b) था6๙ थाรяाह1 ค ตอิ


S68. Ans. (a)


(a) 凡াল্লু-ळा|्झ1Q

(c) आघぬா
(d) ล16ตึด

S69. Ans. (c)
Sol. आ®ฆ|ட

70. I have not yet in my life eaten any fruit sweeter than mango.




${ }^{5}$ ODISHA
Test Mate
OPSCIOSSCIOSSSC \& Others

600+ Total Tests

S70. Ans. (d)

71. He does not like me as much as I like him.




S71. Ans. (b)

72. Mighty Himalayas and vast Indian Ocean bound India in north and south respectively.




S72. Ans. (d)

73. Seek happiness in whatever you do, small or big.




S73. Ans. (a)

74. I will talk about my sister's marriage with my father after she returns from office.




S74. Ans. (c)

75. People have started leaving this place since a few years.


(c) 6 กाभЯा

S75. Ans. (a)


## PART - III <br> MATHEMATICS - $\mathbf{3 5}$ Marks

76. Find the area and perimeter of a rectangle having length 12 cm and breadth 10 cm
(A) $120 \mathrm{~cm} 2,44 \mathrm{~cm}$
(B) $120 \mathrm{~cm} 2,48 \mathrm{~cm}$
(C) $128 \mathrm{~cm} 2,48 \mathrm{~cm}$
(D) $124 \mathrm{~cm} 2,40 \mathrm{~cm}$

The correct answer is option (A)

## Solution:

The area and perimeter of a rectangle can be found using the following formulas:
Area $=$ Length * Breadth
Perimeter $=2$ * (Length + Breadth)
Given:
Length $=12 \mathrm{~cm}$
Breadth $=10 \mathrm{~cm}$
Area $=12 \mathrm{~cm}^{*} 10 \mathrm{~cm}=120 \mathrm{~cm}^{\wedge} 2$
Perimeter $=2 *(12 \mathrm{~cm}+10 \mathrm{~cm})=2 * 22 \mathrm{~cm}=44 \mathrm{~cm}$
So, the area of the rectangle is 120 centimeters square and the perimeter is 44 centimeters.
77. The perimeter of a equilateral triangle is 27 cm , what is the length of its sides
(A) $13 \mathrm{~cm}, 7 \mathrm{~cm}, 7 \mathrm{~cm}$
(B) $10 \mathrm{~cm}, 9 \mathrm{~cm}, 8 \mathrm{~cm}$
(C) $\mathbf{9} \mathbf{~ c m}, 9 \mathrm{~cm}, 9 \mathrm{~cm}$
(D) $10 \mathrm{~cm}, 10 \mathrm{~cm}, 7 \mathrm{~cm}$

The correct answer is option (C)

## Solution:

An equilateral triangle has all sides of equal length. The perimeter of an equilateral triangle is calculated by adding the lengths of all sides. Since all sides are equal in length, you can find the length of one side by dividing the total perimeter by 3 .
Given:
Perimeter $=27 \mathrm{~cm}$
So, the length of each side of the equilateral triangle is $27 \mathrm{~cm} / 3=9 \mathrm{~cm}$.
Therefore, each side of the equilateral triangle is 9 cm .
78. a mixture contains milk and water in the ratio 5:4, if 5 litres of water is added to the mixture, the ratio becomes 5:6. how much milk is there in the mixture
(A) 10 Ltr
(B) 15 Ltr
(C) 15 Ltr
(D) 12.5 Ltr

The correct answer is option (D)

## Solution:

Let's consider that the initial volume of milk is 5 x litres and the initial volume of water is 4 x litres.
When 5 litres of water are added to the mixture, the volume of water becomes $4 \mathrm{x}+5$ litres, while the volume of milk remains the same ( 5 x litres). The new ratio is given as 5:6.
So, we have:
$5 \mathrm{x} /(4 \mathrm{x}+5)=5 / 6$

Cross-multiplying gives us:
$30 \mathrm{x}=20 \mathrm{x}+25$
Solving for x gives:
$10 \mathrm{x}=25$
$\mathrm{x}=2.5$ litres
So, the amount of milk in the mixture is $5 \mathrm{x}=5 * 2.5=12.5$ litres.
79. The sum of two numbers is 25 and their difference is 13 . find their product
(A) 114
(B) 325
(C) 38
(D) 12

The correct answer is option (A)

## Solution:

Let's denote the two numbers as x and y . Given the equations:

1) $x+y=25$ (Sum of the numbers is 25 )
2) $x-y=13$ (Difference of the numbers is 13)

We can solve these two equations to find the values of $x$ and $y$.
Adding equations 1) and 2), we get:
$2 x=38$, so $x=38 / 2=19$

Substitute $\mathrm{x}=19$ into equation 1), we get:
$19+y=25$, so $y=25-19=6$

Now that we have the two numbers as 19 and 6, their product is:
$19 * 6=114$
80. find the simple interest on rs 4000 at annual rate of interest $5 \%$ for 6 months
(A) Rs. 80
(B) Rs 800
(C) Rs 100
(D) Rs 200

The correct answer is option (C)
Solution:
Simple interest is calculated using the formula:
Interest = Principal * Rate * Time
Where:
Principal = Rs 4000
Rate $=5 \%$ per annum $=5 / 100=0.05$ (since percentage is divided by 100)
Time $=6$ months $=0.5$ years (since 6 months is half a year)
Plugging these values into the formula gives:
Interest $=$ Rs 4000 * 0.05 * $0.5=$ Rs 100
So, the simple interest on Rs 4000 at an annual rate of interest of $5 \%$ for 6 months is Rs 100 .

## 81. find the mean of first 5 multiples of 8

(A) 40
(B) 16
(C) 32
(D) 24

The correct answer is option (D)

## Solution:

The first 5 multiples of 8 are $8,16,24,32$, and 40 .
To find the mean (or average) of these numbers, we add them together and then divide by the number of numbers.
Mean $=(8+16+24+32+40) / 5=120 / 5=24$
So, the mean of the first 5 multiples of 8 is 24 .
82. Ram's salary increased from Rs 24000 to 30000 . find the increase in percentage
(A) $60 \%$
(B) $6000 \%$
(C) $25 \%$
(D) $20 \%$

The correct answer is option (C)
Solution:
The increase in Ram's salary is Rs 30000 - Rs $24000=$ Rs 6000.
The percentage increase is found by dividing the amount of the increase by the original amount, and then multiplying by 100 to get a percentage.
Percentage Increase $=($ Increase $/$ Original amount $) * 100$
So, the percentage increase in Ram's salary is:
(Rs $6000 /$ Rs 24000) * $100=25 \%$
So, Ram's salary increased by $25 \%$.
83. In the series $357,363,369, \ldots .$. . what will be the 10 th term
(A) 413
(B) 417
(C) 411
(D) 405

The correct answer is option (C)

## Solution:

The series provided is an arithmetic sequence, where each term increases by a common difference. Here, the common difference is $6(363-357=6,369-363=6$, etc.).
In an arithmetic sequence, the nth term can be found using the formula:
a_n $=\mathrm{a} \_1+(\mathrm{n}-1)^{*} \mathrm{~d}$
where:
a_n is the nth term
a_1 is the first term
$d$ is the common difference
n is the position of the term in the sequence
Given:
a_1 $=357$
d = 6
$\mathrm{n}=10$
We plug these into the formula:
a_10 $=357+(10-1) * 6$
a_10 $=357+54=411$

84. Which one of the following number is divisible by 3 ,
(A) 7249
(B) 9332
(C) 8168
(D) 4599

The correct answer is option (D)
Solution:
A number is divisible by 3 if the sum of its digits is divisible by 3 .
Let's calculate the sum of digits for each number:

For 7249: $7+2+4+9=22$
For 9332: $9+3+3+2=17$
For 8168: $8+1+6+8=23$
For 4599: $4+5+9+9=27$
Out of these, only 27 is divisible by 3 . Therefore, 4599 is the only number among the given options that is divisible by 3 .

## 85. find the perimeter of a square having area 144 cm square

(A) 12 cm
(B) 36 cm
(C) 24 cm
(D) 48 cm

The correct answer is option (D)
Solution:
The area of a square is calculated by squaring the length of one of its sides.
If the area is 144 square cm , then each side length (let's call it 'a') is the square root of 144 , which is 12 cm .
Area $=\mathrm{a}^{\wedge} 2$
=> $144=a^{\wedge} 2$
$\Rightarrow \mathrm{a}=\operatorname{sqrt}(144)=12 \mathrm{~cm}$
The perimeter of a square is calculated by multiplying the length of one side by 4.
So, the perimeter of this square is $12 \mathrm{~cm} * 4=48 \mathrm{~cm}$.
86. If $\mathbf{1 5}$ power $4 \times 15$ power $y=15$ power 6 , find the value of $y$
(A) 24
(B) 2
(C) 5
(D) 1.5

The correct answer is option (B)

## Solution:

When you multiply numbers with the same base (like 15 in this case), you add the exponents.
So, the equation can be written as:
$15^{\wedge} 4 * 15^{\wedge} y=15^{\wedge}(4+y)$
Given that this is equal to $15^{\wedge} 6$, you have:
$4+y=6$
Solving for y , you get:
$y=6-4=2$
So, $\mathrm{y}=2$.
87. In how many years rs 3100 will become rs 6200 at $4 \%$ simple interest per annum
(A) 20
(B) 30
(C) 15
(D) 25

The correct answer is option (D)

## Solution:

In the case of simple interest, the formula is:

Interest $=$ Principal $*$ Rate $*$ Time

Here, the interest is the difference between the final amount and the initial amount, or Rs 6200 - Rs $3100=$ Rs 3100. The principal is the initial amount of Rs 3100 . The rate of interest is $4 \%$, or 0.04 when expressed as a decimal.

Substituting these into the formula gives:
$3100=3100 * 0.04 *$ Time

Solving for Time gives:
Time $=3100 /(3100 * 0.04)=25$ years

So, it will take 25 years for Rs 3100 to become Rs 6200 at $4 \%$ simple interest per annum.
88. Find 8\% of 625
(A) $8 / 625$
(B) $800 / 625$
(C) $625 / 8$
(D) 50

The correct answer is option (D)
Solution:
To find $8 \%$ of 625 , you multiply 625 by $8 / 100$ (since a percentage is a number out of 100 ).
So, $8 \%$ of 625 is:
$625 *(8 / 100)=50$
So, $8 \%$ of 625 is 50 .
89. After spending $\mathbf{3 0} \%$ of the money he took for shopping, hari is left with rs 2100 . how much money he had taken for shopping
(A) Rs. 6300
(B) Rs. 3000
(C) Rs. 14,700
(D) Rs. 2170

The correct answer is option (B)

## Solution:

In this case, the Rs 2100 left represents the $70 \%$ of the total money Hari took for shopping. This is because if he spent $30 \%$ of his money, he has $100 \%-30 \%=70 \%$ of his money left.

We can set up an equation to solve for the total amount of money (which we'll call X) Hari took for shopping:
$70 / 100$ * $\mathrm{X}=2100$
Solving for X gives:
$\mathrm{X}=2100 /(70 / 100)=\operatorname{Rs} 3000$
So, Hari initially had Rs 3000 for shopping.
90. Out of 200 persons, 140 like tea, 120 like coffee and 80 like both tea and coffee. how many like neither tea nor coffee
(A) 60
(B) 10
(C) 20
(D) 40

The correct answer is option (C)

## Solution:

The number of people who like tea or coffee (or both) is equal to the number who like tea plus the number who like coffee, minus the number who like both (since those who like both have been counted twice).
So the number of people who like tea or coffee is:
140 (tea lovers) +120 (coffee lovers) - 80 (those who like both) $=180$
Since there are 200 people total, the number who like neither tea nor coffee is:
200 (total people) - 180 (tea or coffee lovers) $=20$
So, 20 people do not like either tea or coffee.
91. which one has larger perimeter, a square with 1 cm long or a circle with 1 cm radius
(A) Square
(B) Circle
(C) Both have same Perimeter
(D) Cannot Say

The correct answer is option (B)

## Solution:

Let's calculate the perimeter (or circumference for the circle) of both shapes.
The perimeter of a square is calculated by multiplying the length of one side by 4 :
Perimeter of square $=1 \mathrm{~cm} * 4=4 \mathrm{~cm}$
The circumference of a circle is calculated using the formula $2 \pi r$, where $r$ is the radius:
Circumference of circle $=2 * \pi * 1 \mathrm{~cm}=$ approximately 6.28 cm
So, a circle with a radius of 1 cm has a larger perimeter (circumference) than a square with sides 1 cm long.
92. Cost price of 11 pencil is equal to selling price of 10 pencils. find the loss or profit percentage if 10 pencils are sold
(A) 10\% Profit
(B) $1 \%$ Loss
(C) $1 \%$ Profit
(D) $10 \%$ Loss

The correct answer is option (A)

## Solution:

Here, the cost price of 11 pencils is equal to the selling price of 10 pencils. This means that each pencil is sold at a profit.
Let's say the cost price of each pencil is Rs 1 . Then, the cost price of 11 pencils would be Rs 11 .
If the selling price of 10 pencils is Rs 11 , then the selling price of each pencil is Rs $11 / 10=$ Rs 1.1.

The profit per pencil is Rs 1.1 - Rs 1 = Rs 0.1 .
The profit percentage is calculated by dividing the profit by the cost price, and then multiplying by 100 :
Profit Percentage $=($ Profit $/$ Cost price $) * 100$
Profit Percentage $=(0.1 / 1) * 100=10 \%$
Therefore, the profit percentage when 10 pencils are sold is $10 \%$.
93. the length of three sides of a triangle are in the ratio $1 / 2: 1 / 3: 1 / 4$ and its perimeter is 78 cm . find the length of its sides
(A) $36 \mathrm{~cm}, 22 \mathrm{~cm}, 20 \mathrm{~cm}$
(B) $36 \mathrm{~cm}, 26 \mathrm{~cm}, 16 \mathrm{~cm}$
(C) $\mathbf{3 6} \mathrm{cm}, 24 \mathrm{~cm}, 18 \mathrm{~cm}$
(D) $32 \mathrm{~cm}, 28 \mathrm{~cm}, 18 \mathrm{~cm}$

The correct answer is option (C)

## Solution:

The ratio of the lengths of the three sides of the triangle is given as $1 / 2: 1 / 3: 1 / 4$. To make the calculation easier, we can convert these fractions into like fractions or the same denominator. The least common denominator for 2 , 3 , and 4 is 12 .

So the ratios can be expressed as:
6/12: 4/12:3/12
Which simplifies to:
6:4:3
The sum of the numbers in the ratio is $6+4+3=13$.
The perimeter of the triangle is 78 cm , so each part of the ratio represents $78 / 13=6 \mathrm{~cm}$.

So, the lengths of the sides of the triangle are:
$6 * 6=36 \mathrm{~cm}$
$4^{*} 6=24 \mathrm{~cm}$
$3 * 6=18 \mathrm{~cm}$
So, the sides of the triangle are $36 \mathrm{~cm}, 24 \mathrm{~cm}$, and 18 cm .
94. $1 / 7$ is equal to
(A) $1 / 7 \%$
(B) $141 / 7 \%$
(C) $142 / 7 \%$
(D) $70 \%$

The correct answer is option (C)

## Solution:

The fraction $1 / 7$, when converted to percentage, equals approximately $14.29 \%$.
This is calculated by taking the fraction $(1 / 7)$, multiplying by 100 , and adding the percentage sign:
(1/7) * $100=$ approximately $14.29 \%$
So, $1 / 7$ equals approximately $14.29 \%$, which is closest to $142 / 7 \%$.

Just for further clarification:
$141 / 7 \%=14.14 \%$
$142 / 7 \%=14.29 \%$
$70 \%=70 / 100=7 / 10$, which is not equal to $1 / 7$.
95. the sum of three angles of a triangle is explain in detail
(A) 270
(B) 90
(C) 360
(D) 180

The correct answer is option (D)
Solution:
In geometry, a fundamental principle about the angles of a triangle is that their sum is always 180 degrees. This is known as the triangle angle sum property and applies to all types of triangles: scalene, isosceles, and equilateral. Let's denote the three angles of a triangle as $\angle \mathrm{A}, \angle \mathrm{B}$, and $\angle \mathrm{C}$. According to the triangle angle sum property:
$\angle \mathrm{A}+\angle \mathrm{B}+\angle \mathrm{C}=180^{\circ}$

This property is a result of the fact that a triangle is half of a rectangle. If you draw a line from one corner of a rectangle to the opposite corner, you will create two triangles. Since the angles in a rectangle sum up to 360 degrees, each triangle must contain half of this, or 180 degrees.
96. a mixture of 150 liters of milk and water contains $20 \%$ water. How much more water should be added so that water becomes $25 \%$ of the new mixture
(A) 10 Ltr
(B) 30 Ltr
(C) 20 Ltr
(D) 15 ltr

The correct answer is option (A)
Solution:
Initially, the mixture contains $20 \%$ of water which is $0.2 * 150=30$ liters.
Therefore, the amount of milk in the mixture is 150-30=120 liters. This amount of milk won't change when more water is added.
We want to find how much water should be added to make water $25 \%$, or 0.25 , of the new mixture. If we let W represent the amount of water to be added, then the total volume of the new mixture will be 120 (milk) + 30 (initial water) + W (added water).
We can set up an equation based on the fact that the water $(30+W)$ should be $25 \%$ of the total volume of the new mixture:
$30+W=0.25^{*}(150+W)$

Solving this equation for W gives us:
$\mathrm{W}=0.25 \mathrm{~W}+37.5-30$
$0.75 \mathrm{~W}=7.5$
W = 10 liters
So, we need to add 10 liters of water to the mixture for the water to make up $25 \%$ of the new mixture.
97. the perimeter of a square courtyard is 100 meter. find the cost of cementing it at the rate of rs 5 per m2
(A) Rs 3125
(B) Rs. 50,000
(C) Rs. 200
(D) Rs. 500

The correct answer is option (A)

## Solution:

The perimeter of a square is 4 times the length of one of its sides. Therefore, the side length of the square courtyard is $100 \mathrm{~m} / 4=25 \mathrm{~m}$. The area of a square is found by squaring the length of one of its sides, so the area of the courtyard is $25 \mathrm{~m} * 25 \mathrm{~m}=625 \mathrm{~m}^{2}$.
If the cost of cementing is Rs 5 per $\mathrm{m}^{2}$, then the total cost of cementing the courtyard is $625 \mathrm{~m}^{2} * \mathrm{Rs} 5 / \mathrm{m}^{2}=\mathrm{Rs} 3125$.
98. if the diameter of a circle is $R$, what is its area
(A) $(\pi / 2) * R^{\wedge} 2$
(B) $(\pi / 4) * R^{\wedge} 2$
(C) $\pi^{*} R^{\wedge} 2$

(D) $2 \pi \mathrm{R}$

## The correct answer is option (B)

## Solution:

The area of a circle can be calculated using the formula:
Area $=\pi^{*}$ (radius) ${ }^{\wedge} 2$

In this case, the diameter of the circle is given as R . The radius is half the diameter, so the radius can be expressed as $\mathrm{R} / 2$.

Substituting the radius into the formula, we get:
Area $=\pi^{*}(\mathrm{R} / 2)^{\wedge} 2$
$=\pi^{*}\left(\mathrm{R}^{\wedge} 2 / 4\right)$
$=(\pi / 4) * R^{\wedge} 2$

Therefore, the area of the circle is $(\pi / 4) * R^{\wedge} 2$.
99. in 2:3 ratio, divide 240 into two parts
(A) 96, 144
(B) 192, 48
(C) 48,192
(D) 144,96

The correct answer is option (A)

## Solution:

To divide 240 into two parts in a 2:3 ratio, we need to determine the values of the two parts using the given ratio.

Step 1: Add the ratio values together to determine the total parts:
$2+3=5$

Step 2: Divide the total value (240) by the total parts (5) to find the value of each part:
$240 / 5=48$

Step 3: Multiply the value of each part by the corresponding ratio value to obtain the two parts:
First part $=2 * 48=96$
Second part $=3 * 48=144$

Thus, dividing 240 into two parts in a 2:3 ratio results in parts of 96 and 144.
100. Which one of the following formula is not correct
(A) $\mathbf{a}^{\wedge} \mathbf{m}^{*} \mathbf{a}^{\wedge} \mathbf{n}=\mathbf{a}^{\wedge}(\mathrm{mn})$
(B) $\left(a^{\wedge} m\right)^{\wedge} n=a^{\wedge}\left(m^{*} n\right)$
(C) $a^{\wedge} m^{*} a^{\wedge} n=a^{\wedge}(m+n)$
(D) $a^{\wedge} n^{*} b^{\wedge} n=(a b)^{\wedge} n$

The correct answer is option (A)
Solution:

1. Multiplication Rule:

When you multiply two numbers with the same base, but different exponents, you can add the exponents.
For example:
$a^{\wedge} m * a^{\wedge} n=a^{\wedge}(m+n)$
This property can be illustrated as follows:
$2^{\wedge} 3 * 2^{\wedge} 4=2^{\wedge}(3+4)=2^{\wedge} 7=128$

## 2. Division Rule:

When you divide two numbers with the same base, but different exponents, you can subtract the exponents.
For example:
$a^{\wedge} m / a^{\wedge} n=a^{\wedge}(m-n)$
This property can be illustrated as follows:
$7^{\wedge} 5 / 7^{\wedge} 2=7^{\wedge}(5-2)=7^{\wedge} 3=343$

## 3. Power of a Power Rule:

When you raise an exponentiated number to another power, you can multiply the exponents.
For example:
$\left(a^{\wedge} \mathrm{m}\right)^{\wedge} \mathrm{n}=\mathrm{a}^{\wedge}(\mathrm{m} * \mathrm{n})$
This property can be illustrated as follows:
$\left(3^{\wedge} 2\right)^{\wedge} 4=3^{\wedge}(2 * 4)=3^{\wedge} 8=6561$
4. Power of a Product Rule:

When you raise a product of numbers to an exponent, you can distribute the exponent to each factor individually.
For example:
(ab)^n $=a^{\wedge} n^{*} b^{\wedge} n$
This property can be illustrated as follows:
$(2 * 3)^{\wedge} 4=2^{\wedge} 4 * 3^{\wedge} 4=16 * 81=1296$
101. if the radius of a circle is halved, its area will decreased by $\qquad$ \%
(A) 75\%
(B) $100 \%$
(C) $25 \%$
(D) $50 \%$

The correct answer is option (A)

## Solution:

When the radius of a circle is halved, the area of the circle decreases by a factor of four (4).

The area of a circle is given by the formula: $A=\pi r^{\wedge} 2$, where $r$ is the radius.

If the radius is halved, the new radius becomes $\mathrm{r} / 2$. The new area, $\mathrm{A}^{\prime}$, can be calculated as follows:
$\mathrm{A}^{\prime}=\pi(\mathrm{r} / 2)^{\wedge} 2=\pi\left(\mathrm{r}^{\wedge} 2 / 4\right)=(\pi / 4) \mathrm{r}^{\wedge} 2$

To determine the percentage decrease in area, we compare the difference between the original area (A) and the new area (A').

Difference $=A-A^{\prime}=\pi r^{\wedge} 2-(\pi / 4) r^{\wedge} 2=(3 \pi / 4) r^{\wedge} 2$

Percentage decrease $=($ Difference $/ A) * 100$

$$
\begin{aligned}
& \left.=((3 \pi / 4))^{\wedge} 2 /\left(\pi r^{\wedge} 2\right)\right) * 100 \\
& =(3 / 4) * 100 \\
& =75 \%
\end{aligned}
$$

Therefore, when the radius of a circle is halved, the area of the circle decreases by $75 \%$.
102. a person crosses a 600 metre long street in $\mathbf{5}$ minutes. what is his speed per hour
(A) $8.8 \mathrm{~km} / \mathrm{hr}$
(B) $7.2 \mathrm{~km} / \mathrm{hr}$
(C) $7.8 \mathrm{~km} / \mathrm{hr}$
(D) $8.4 \mathrm{~km} / \mathrm{hr}$

The correct answer is option (B)

## Solution:

To find the speed of a person in meters per hour, we need to convert the time from minutes to hours and calculate the distance covered.
Given:
Distance $=600$ meters
Time $=5$ minutes

To convert 5 minutes to hours, we divide it by 60 since there are 60 minutes in an hour:
Time (in hours) $=5$ minutes $/ 60=1 / 12$ hour
Now, to calculate the speed (rate) in meters per hour, we divide the distance by the time:
Speed = Distance / Time
Speed $=600$ meters $/(1 / 12)$ hour
Speed $=600$ meters * 12
Speed $=7200$ meters per hour $=7.2 \mathrm{Km} / \mathrm{hr}$

Therefore, the person's speed is 7.2 km per hour.
103. if one third of one fourth of a number is 15 , what is the number
(A) $45 / 4$
(B) $15 / 12$
(C) 180
(D) 20

The correct answer is option (C)

## Solution:

Let's denote the number as ' $x$ '.
According to the given information, one-third of one-fourth of the number is equal to 15 :
$(1 / 3) *(1 / 4) * x=15$

To solve for ' $x$ ', we can simplify the equation:
$(1 / 12) * x=15$
To isolate ' $x$ ', we multiply both sides of the equation by 12 :
$\mathrm{x}=15 * 12$
$\mathrm{x}=180$

Therefore, the number is 180 .
104. simplify (125) power (-2/3)
(A) 25
(B) $1 / 25$
(C) $-250 / 3$
(D) $-375 / 2$

The correct answer is option (B)
Solution:
To simplify $(125)^{\wedge}(-2 / 3)$, we can use the property of negative exponents:
$a^{\wedge}(-n)=1 / a^{\wedge} n$
Applying this property, we have:
$(125)^{\wedge}(-2 / 3)=1 /(125)^{\wedge}(2 / 3)$
Now, let's simplify the denominator, (125)^(2/3):
$(125)^{\wedge}(2 / 3)=\left(5^{\wedge} 3\right)^{\wedge}(2 / 3)$ ( 125 can be written as $5^{\wedge} 3$ )
Using the exponentiation rule $\left(\mathrm{a}^{\wedge} \mathrm{m}\right)^{\wedge} \mathrm{n}=\mathrm{a}^{\wedge}\left(\mathrm{m}^{*} \mathrm{n}\right)$, we can simplify further:
$\left(5^{\wedge} 3\right)^{\wedge}(2 / 3)=5^{\wedge}\left(3^{*}(2 / 3)\right)$
The exponent $3^{*}(2 / 3)$ results in 2 :
$5^{\wedge}\left(3^{*}(2 / 3)\right)=5^{\wedge} 2$
So, the expression $(125)^{\wedge}(-2 / 3)$ is equivalent to $1 /(125)^{\wedge}(2 / 3)$, which simplifies to $1 / 5^{\wedge} 2$.
Finally, $1 / 5^{\wedge} 2$ is equal to $1 / 25$.
Therefore, $(125)^{\wedge}(-2 / 3)$ simplifies to $1 / 25$.
105. if $\mathbf{2}$ power $-\mathrm{a}=\mathbf{1 / 6 4}$, what is the value of $a$ ?
(A) -6
(B) 32
(C) 128
(D) 6

The correct answer is option (D)

## Solution:

To find the value of ' $a$ ' in the equation $2^{\wedge}(-a)=1 / 64$, we can rewrite $1 / 64$ as a power of 2 .
$1 / 64$ is equivalent to $2^{\wedge}(-6)$. This means that -a must equal -6 in order for the equation to hold.
Therefore, $\mathrm{a}=6$.
So, the value of ' a ' is 6 .

106. If an item with a sale price of rs 1000 is sold at a discount of $20 \%$, then how much money will the customer save.?
(A) Rs. 500
(B) Rs. 200
(C) Rs. 980
(D) Rs. 800

The correct answer is option (B)

## Solution:

To calculate the amount of money the customer will save, we need to find $20 \%$ of the sale price.
Discount $=20 \%$ of Sale Price
Discount $=(20 / 100) *$ Sale Price
Discount $=(20 / 100) * 1000$
Discount $=200$
Therefore, the customer will save Rs 200 when purchasing the item at a $20 \%$ discount.
107. find the mean of $5,11,16,10$ and 18
(A) 18
(B) 12
(C) 16
(D) 5

The correct answer is option (B)

## Solution:

To find the mean of a set of numbers, you need to sum up all the numbers and then divide the sum by the total count of numbers.
Given the numbers: $5,11,16,10$, and 18
Sum of the numbers $=5+11+16+10+18=60$
Since there are 5 numbers, the mean is obtained by dividing the sum by 5 :
Mean $=60 / 5=12$
Therefore, the mean of the numbers $5,11,16,10$, and 18 is 12 .
108. find the median of $96,37,14,35,55,110$, and 24
(A) 37
(B) $35 / 7$
(C) 53
(D) 35

The correct answer is option (A)
Solution:
To find the median of a set of numbers, you arrange the numbers in ascending order and then find the middle value. If the set has an odd number of values, the median is the middle number. If the set has an even number of values, the median is the average of the two middle numbers.
Given the numbers: $96,37,14,35,55,110$, and 24
Arranging the numbers in ascending order: $14,24,35,37,55,96,110$
Since there are 7 numbers in the set (an odd number), the median is the middle number, which is the fourth number in the ordered list.
Therefore, the median of the given set of numbers is 37 .
109. find the area of a triangle whose side measure $13 \mathrm{~cm}, 14 \mathrm{~cm}$ and 15 cm
(A) 74 cm 2
(B) 84 cm 2
(C) 54 cm 2
(D) 64 cm 2

The correct answer is option (B)

## Solution:

To find the area of a triangle using the side lengths, we can apply Heron's formula. Heron's formula states that the area of a triangle with side lengths $\mathrm{a}, \mathrm{b}$, and c is given by:
Area $=\operatorname{sqrt}\left(s^{*}(s-a) *(s-b) *(s-c)\right)$
where $s$ is the semi-perimeter of the triangle, calculated as:
$\mathrm{s}=(\mathrm{a}+\mathrm{b}+\mathrm{c}) / 2$
Given the side lengths of the triangle as $13 \mathrm{~cm}, 14 \mathrm{~cm}$, and 15 cm , we can calculate the semi-perimeter:
$\mathrm{s}=(13+14+15) / 2=42 / 2=21 \mathrm{~cm}$
Now we can calculate the area using Heron's formula:
Area $=\operatorname{sqrt}\left(21^{*}(21-13)^{*}(21-14) *(21-15)\right)$
Area $=\operatorname{sqrt}(21 * 8 * 7 * 6)$
Area $=\operatorname{sqrt}(21 * 336)$
Area $=\operatorname{sqrt}(7056)$
Area $\approx 84 \mathrm{~cm}^{2}$
Therefore, the area of the triangle is approximately 84 square centimeters.

## 110. if $\mathbf{3}$ angles of quadrilateral are 50,75 and 80 degree, then find the remaining angle

(A) 180
(B) 65
(C) 155
(D) 90

The correct answer is option (C)

## Solution:

To find the measure of the remaining angle in a quadrilateral, we need to know that the sum of the interior angles of any quadrilateral is always 360 degrees.
Given the measures of three angles in the quadrilateral as 50 degrees, 75 degrees, and 80 degrees, we can calculate the measure of the remaining angle as follows:
Sum of the three given angles $=50+75+80=205$ degrees
To find the measure of the remaining angle, we subtract the sum of the three given angles from the total sum of interior angles of a quadrilateral (360 degrees):

Remaining angle $=360-205=155$ degrees

Therefore, the measure of the remaining angle in the quadrilateral is 155 degrees.

## PART - IV <br> GENERAL KNOWLEDGE : 35 Marks

111. Indian player PV Sindhu is associated with which sports?
A. Table Tennis
B. Badminton
C. Ball badminton
D. Tennis

The correct answer is (B) Badminton.
Explanation: P. V. Sindhu is a world champion badminton player from India. She is the first Indian woman to win an Olympic silver medal in badminton. She has also won several other international tournaments, including the World Championships, the BWF World Tour Finals, and the Asian Games.
112. Which country has recently been inducted into the North Atlantic Treaty Organisation.
A. Sweden
B. Ukraine
C. Norway
D. Finland

The correct answer is (D) Finland.
Explanation: Finland was officially inducted into NATO on 5 July 2022. This was a historic event, as Finland had previously been neutral for over 70 years. The decision to join NATO was made in response to the Russian invasion of Ukraine.
113. Who has occupied Odisha just before Britishers?
A. Mauryas
B. Portuguese
C. Mongols

## D. Mahrattas

The correct answer is (D) Marathas.
Explanation: The Marathas were a powerful Hindu warrior clan that ruled much of western and central India from the 17th to the 19th centuries. They occupied Odisha in the early 18th century, and their rule lasted until the British East India Company took control of the region in 1803.
114. Which of the below given countries is largest in area?
A. Peru
B. Argentina
C. Chile
D. Brazil

The correct answer is ( $B$ ) Brazil.
Explanation: Brazil is the largest country in South America, and the fifth largest country in the world. It has a total area of 8.5 million square kilometers. The next largest country in South America is Argentina, which has a total area of 2.7 million square kilometers.
115. Ancient India's great man Chanakya was associated with which Kingdom?
A. Chalukya
B. Kushan
C. Chola

## D. Mourya

The correct answer is (D) Maurya.
Explanation: Chanakya was a Brahmin scholar and politician who served as the chief advisor to Chandragupta Maurya, the founder of the Maurya Empire. He is considered to be one of the greatest political thinkers in Indian history.
116. 1st May is celebrated in India as what day?
A. Republic day
B. Martyr day
C. Labour day
D. Utkal day

The correct answer is (C) Labour day.
Explanation: 1st May is celebrated as Labour Day all over the world (including India). It is a national holiday, and is a day to celebrate the achievements of the working class.
117. Iraq country is associated with which ancient human civilization?
A. Greek
B. Mesopotamia
C. Egypt
D. Rome

## The correct answer is (C) Mesopotamia.

Explanation: Mesopotamia was a region that is now located in modern-day Iraq, Syria, and Turkey. It was home to some of the earliest human civilizations, including the Sumerians, Akkadians, Babylonians, and Assyrians.
118. What is "Vande Bharata Express"?
A. A south Indian film
B. A north Indian film
C. A ship
D. A Train


The correct answer is (D) A Train.
Explanation: Vande Bharat Express is India's indigenous Semi High Speed train. It can run up to a maximum speed of 160 kmph and has travel classes like Shatabdi Train but with better facilities. It aims to provide a totally new travel experience to passengers.
119. Which country borders the country Ukraine?
A. Russia
B. Finland
C. Germany
D. England

The correct answer is (A) Russia.
Explanation: Russia is the largest country in the world, and it borders Ukraine to the east, north, and northeast. Other countries that border Ukraine include Belarus, Poland, Slovakia, Hungary, Romania, Moldova, and the Black Sea.
120. In which country, more than 10,000 people lost their lives in a severe earthquake in February 2023?
A. China
B. Pakistan
C. Iran
D. Turkey

## The correct answer is (D) Turkey.

Explanation: A severe earthquake struck Turkey in February 2023, killing more than 10,000 people. The earthquake was centered in the city of Elazig, and had a magnitude of 7.8.
121. Which of the following Indian states is not a Coastal State?
A. West Bengal
B. Telangana
C. Goa
D. Karnataka

The correct answer is (C) Telangana.
Explanation: Telangana is a landlocked state in India. It is located in the south-central part of the country, and is bordered by the states of Andhra Pradesh, Karnataka, and Maharashtra.
122. Name the revolution of 1942 for India's Independence?
A. Quit India
B. Salt March
C. Sepoy Mutiny
D. Civil Disobedience

## The correct answer is (A) Quit India.

Explanation: The Quit India Movement was a major political movement in India that took place in 1942. The movement was launched by the Indian National Congress, and called for the British to leave India. The movement was successful in achieving its goal, and India gained independence in 1947.
123. Which one of the following is not a sea port?
A. Gopalpur
B. Paradeep
C. Dhamra
D. Puri


The correct answer is (D) Puri.
Explanation: The major seaport in Odisha includes - Paradeep, Dhamra and Gopalpur. Paradip Port is the only Major Port in the State under the control of the Government of India. Dhamra and Gopalpur are non-major ports, however, they are already functioning. Puri is one of the coastal districts of Odisha.
124. Mankind had originated from which place?
A. America
B. Australia
C. Africa
D. Asia

The correct answer is (C) Africa.
Explanation: Mankind is believed to have originated in Africa. The earliest fossils of Homo sapiens have been found in Africa, and it is believed that humans evolved in Africa over millions of years.
125. Odia film ' DAMAN', released last year, narrates the story of which district?
A. Malkangiri
B. Kandhamal
C. Koraput
D. Raygada

The correct answer is (A) Malkangiri.

Explanation: DAMAN is an Odia film that was released in 2022. It narrates the story of the Maoist insurgency in Malkangiri district, Odisha.
126. Which one of the following is a classical dance of North India?
A. Kathak
B. Bharatnatyam
C. Kuchipudi
D. Kathakali

The correct answer is (A) Kathak.
Explanation: Kathak is a classical dance of North India. It is a graceful and expressive dance that is characterized by its intricate footwork and fluid movements. Other classical dances of North India include Bharatnatyam, Kathakali, and Manipuri.
127. Which continent is least affected by first and second world wars?
A. South America
B. Europe
C. Africa
D. Asia

The correct answer is (A) South America.
Explanation: South America was the least affected continent by the First and Second World Wars. This is because South America is located far away from the European and Asian theaters of war.
128. Ancient Odisha's sailors were doing trade with which part of the world?
A. South-West-Asia
B. Europe
C. South-East-Asia
D. China and Japan

The correct answer is (C) South-East-Asia.
Explanation: Most appropriate answer is South-East Asia. According to the account of I-Tsing (Chinese Buddhist monk and traveller), ancient Odisha's sailors caught the southern monsoon winds and sailed across the open sea to Sumatra and surrounding South-East Asian countries and areas such Cambodia, Vietnam, Java and Bali.
129. How many districts are in Odisha?
A. 30
B. 31
C. 28
D. 29

The correct answer is (A) 30.
Explanation: Odisha has 30 districts. The districts of Odisha are:
Puri, Malkangiri, Ganjam, Gajapati, Cuttack, Boudh, Balasore, Debagarh, Sundargarh, Nuapada, Koraput, Jagatsinghpur, Dhenkanal, Kalahandi, Subarnapur, Nabarangpur, Kendrapara, Mayurbhanj, Rayagada, Sambalpur, Jharsuguda, Sambalpur, Nyayagarh, Kandhamal, Kendujhar, Jajpur, Khordha, Angur, Balangir, and Bhadrak.
130. Modern mankind is known in what name?
A. Neanderthal
B. Australopithecus

## C. Homo Sapien



## D. Homo erectus

The correct answer is (C) Homo Sapien.
Explanation: Modern mankind is known as Homo Sapien. They are the most recent species of human that evolved from apes. Homo Sapien is characterized by their large brains, upright posture, and advanced tool use.
131. What does ' NaCl ' mean in Chemistry ?
A. Common salt
B. Vitamin
C. Sugar
D. Acid

## The correct answer is (A) Common Salt.

Explanation: NaCl is the chemical formula for common salt. It is a white, crystalline substance that is made up of sodium and chlorine atoms. Common salt is used in a variety of food and industrial applications.
132. Mithali Raj, an Indian woman player who retired from sports in 2022, was associated with which sports?
A. Cricket
B. Gymnastics
C. Kabadi
D. Tennis

The correct answer ( A ) Cricket.
Explanation: Mithali Raj was an Indian woman cricketer who retired from sports in 2022. She is the highest runscorer in women
133. In which place the FIH Hockey World - Cup 2023 was played ?
A. Mumbai
B. Rourkela
C. Qatar
D. Belgium

The correct answer is ( B ) Rourkela
Explanation: The 2023 Men's FIH Hockey World Cup was held at the Kalinga Stadium in Bhubaneswar and at the 20,000 seat Birsa Munda International Hockey Stadium in Rourkela, India.
134. Which was the first state of India formed on linguistic basis?
A. Andhra Pradesh
B. Odisha
C. Tamil Nadu
D. West Bengal

## The correct answer (A) Andhra Pradesh

Explanation: Andhra Pradesh was the first state of India formed on linguistic basis. It was formed in 1953, and was divided into two states, Andhra Pradesh and Telangana, in 2014.
135. Which of the following Indian cities is located in south India?
A. Itanagar
B. Dharamshala
C. Coimbatore
D. Mohali

The correct answer (C) Coimbatore
Explanation: Coimbatore is a city in the Indian state of Tamil Nadu. It is located in the western part of the state, and is known as the "Manchester of South India" due to its textile industry.
136. Who is presently the president of India?
A. Ganeshi lal
B. Droupadi Murmu
C. Narendra Modi
D. Ramnath Kovind

## The correct answer (B) Droupadi Murmu

Explanation: Droupadi Murmu is the 15th and current president of India. She was sworn in on 25 July 2022. She is the first tribal woman to be elected president of India.
137. $\mathrm{E}=\mathrm{mc} 2$ formula is associated with which scientist ?
A. C V Raman
B. Einstein
C. Newton
D. Galileo

## The correct answer (B) Albert Einstein

Explanation: $\mathrm{E}=\mathrm{mc} 2$ is the most famous equation in physics. It was first proposed by Albert Einstein in 1905, and it shows the relationship between energy and mass. The equation states that energy is equal to mass multiplied by the speed of light squared.
138. Palestine is located on which continent?
A. South America
B. Europe
C. Asia
D. Africa

The correct answer (C) Asia
Explanation: Palestine is a region that is located in the Middle East. It is bordered by Israel to the west, Jordan to the east, and Egypt to the south. The status of Palestine is disputed, and it is not recognized as a state by most countries.
139. In which direction of India, the Himalayan Mountain Range is located?
A. South
B. North
C. East
D. West

## The correct answer (B) North

Explanation: The Himalayan Mountain Range is located in the northern part of India. It is the highest mountain range in the world, and it separates India from China and Nepal.
140. Mahanadi flows in which district of Odisha?
A. Dhenkanal
B. Khorda
C. Kandhamal
D. Boudh

The correct answer (D) Boudh
Explanation: The Mahanadi River is the longest river in Odisha. It flows through the districts of Boudh, Cuttack, Jajpur, and Kendrapara.
141. India's ancient city Pataliputra is presently known as what?
A. Pune
B. Palampur
C. Patna
D. Panipat

The correct answer (C) Patna
Explanation: Patna is the capital of the Indian state of Bihar. It is located on the banks of the Ganges River, and is one of the oldest cities in India. Pataliputra was the capital of the Maurya Empire, and it is believed to have been one of the largest cities in the world at the time.
142. Indian origin Rishi Sunak is Prime Minister of which country?
A. Indonesia
B. Spain
C. Canada
D. United Kingdom

The correct answer (D) United Kingdom
Explanation: Rishi Sunak is the Prime Minister of the United Kingdom. He is of Indian origin, and his parents were born in East Africa. Sunak was born in Southampton, England, and studied philosophy, politics, and economics at Oxford University.
143. Khandagiri and Udayagiri caves of Bhubaneswar are associated with which religion ?
A. Hinduism
B. Islam
C. Jainism
D. Buddhism

The correct answer ( $C$ ) Jainism
Explanation: The Khandagiri and Udayagiri caves are located in Bhubaneswar, Odisha. They are a group of 184 caves that were excavated in the 2 nd and 3rd centuries CE. The caves are associated with Jainism, and they contain a number of sculptures and inscriptions that depict the Jain faith.
144. Which country had hosted the recently conducted FIFA World Cup football - 2022 ?
A. Qatar
B. Argentina
C. France
D. Morocco

The correct answer (A) Qatar
Explanation: The FIFA World Cup 2022 was hosted by Qatar. The tournament was held from 21 November to 18 December 2022, and was won by Argentina.
145. What is 'RRR' that got famous recently?
A. An Indian Food
B. An Indian Dance
C. An Indian Film
D. An Indian Novel

The correct answer ( C) An Indian Film
Explanation: RRR is an Indian Telugu-language film that was released in 2022. It is a historical action film that tells the story of two freedom fighters who fought against the British Raj. The film was directed by S. S. Rajamouli, and stars N. T. Rama Rao Jr., Ram Charan, Alia Bhatt, and Ajay Devgn

# PART - V <br> COMPUTER KNOWLEDGE : 35 Marks 

## Computer Knowledge

146) RAM stands for
A. Random Assigned Memory
B. Read only Memory
C. Random Access Memory
D. Read Access Memory

## The correct answer ( C) Random Access Memory

Explanation: RAM stands for Random Access Memory. It is a type of memory that can be accessed randomly. This means that any byte of memory can be accessed equally quickly, regardless of its location in the memory. RAM is used to store data that is currently being used by the computer.
147) A set of rules that governs data communication is
A. HTML
B. Protocol
C. Software
D. Tools

## The correct answer (B) Protocol

Explanation: A protocol is a set of rules that govern data communication. It defines how data is formatted, transmitted, and received. Protocols are essential for ensuring that data is exchanged reliably and correctly between different devices.
148) Google Chrome is an example of
A. WWW
B. HTTP
C. Web Server
D. Web Browser

The correct answer (D) Web Browser
Explanation: Google Chrome is a web browser. A web browser is a software application that allows users to access and view websites on the internet. Google Chrome is one of the most popular web browsers in the world.
149) Which of the following is software ?
A. Projector
B. Hard Disk
C. MS-Office
D. Printer

The correct answer ( C) MS-Office
Explanation: MS-Office is a software application. Software is a collection of instructions that tells a computer what to do. MS-Office is a suite of productivity software that includes applications such as Word, Excel, and PowerPoint.
150) A $\qquad$ ia an organized collection of data.
A. Field
B. e Mail
C. Database
D. Record

## The correct answer ( C) Database

Explanation: A database is an organized collection of data. It is a collection of data that is stored in a structured way so that it can be easily accessed and manipulated. Databases are used in a wide variety of applications, such as customer relationship management, inventory management, and financial reporting.
151) The following are all computing devices except $\qquad$
A. Digital Scanners
B. Laptops
C. Notebook Computers
D. Mobile Phones

The correct answer (A) Digital Scanners
Explanation: Digital scanners are devices used to convert physical documents or images into digital format. While they are used in computing environments to input data into a computer, they are not considered standalone computing devices. They are peripheral devices that assist in data input, but they do not have the computing capabilities of devices like laptops, notebook computers, and mobile phones.
152) A secure website
A. Asks to login using e-mail ID and Password
B. asks to login with biometrics
C. indicates a lock in front of the URL and begins with https.
D. asks to login with OTP.

## The correct answer ( $C$ ) indicates a lock in front of the URL and begins with https.

Explanation: A secure website is a website that uses a secure protocol to transmit data. The secure protocol used by most websites is HTTPS, which stands for Hypertext Transfer Protocol Secure. HTTPS uses encryption to protect the data that is transmitted between the website and the user's browser.
153) LCD stands for
A. Light Crystal Display
B. Lithium Crystal Display
C. Liquid Crystal Display
D. LaserCrystal Display

The correct answer (C) Liquid Crystal Display
Explanation: LCD stands for Liquid Crystal Display. LCDs are a type of display that uses liquid crystals to create images. LCDs are used in a wide variety of devices, such as televisions, computers, and smartphones.
154) Which of the following is considered as ICT device?
A. FM Radio
B. Multi Meter
C. Smart TV
D. Tablet

The correct answer (C) Smart TV
Explanation: ICT stands for Information and Communication Technology. ICT devices are devices that are used to store, process, and transmit information. Smart TVs are considered as ICT devices because they can be used to access the internet, stream videos, and play games.
155) A keyboard is what kind of device?
A. output
B. Word Processing
C. Black
D. Input

The correct answer ( D) Input
Explanation: A keyboard is an input device. Input devices are devices that are used to input data into a computer.
Keyboards are used to input text, numbers, and symbols into a computer.
156) Identify the Operating System out of the following
A. Microsoft Windows
B. Mozilla Firefox
C. Google Chrome
D. Adobe Photoshop

The correct answer (A) Microsoft Windows
Explanation: An operating system (OS) is a software program that manages the hardware and software resources of a computer. It provides a platform for other software to run on. Microsoft Windows is an operating system that is used by millions of people around the world.
157) Which communication protocol is used by the Internet?

A. HTML
B. TCP/IP
C. WWW
D. W3C

The correct answer ( B) TCP/IP
Explanation: TCP/IP is the communication protocol that is used by the internet. It is a set of rules that govern how data is transmitted over the internet. TCP/IP stands for Transmission Control Protocol/Internet Protocol.
158) Which one of the following is the strongest password ?
A. hello12345678
B. password
C. 123456789
D. Aprfd@2021?

The correct answer ( D) Aprfd@2021?
Explanation: The strongest password is Aprfd@2021?. It is a strong password because it is a combination of upper and lowercase letters, numbers, and symbols. It is also a long password, which makes it more difficult to crack.
159) To cut off parts of an image is known as
A. Cropping
B. Wrapping
C. Cut off
D. Trimming

The correct answer (A) Cropping
Explanation: Cropping is the process of cutting off parts of an image. It is a common technique used in image editing software to remove unwanted parts of an image or to focus on a particular part of the image.
160) Which is not a popular computer manufacturing brand ?
A. ACER
B. NOKIA
C. HP
D. HCL

The correct answer (B) NOKIA

NOKIA is not a popular computer manufacturing brand. While Nokia is known for its mobile phones, it is not widely recognized as a manufacturer of computers. On the other hand, ACER, HP, and HCL are well-known computer manufacturing brands.
161) Which of the following groups consists of only output devices?
A. Mouse, Printer, Monitor
B. Plotter, Printer, Monitor
C. Scanner, Printer, Monitor
D. Keyboard, Printer, Monitor

## The correct answer (B) Plotter, Printer, Monitor

Plotter, Printer, and Monitor are examples of output devices. The plotter and printer produce physical output, while the monitor displays visual output.
162) Which of the following options is used to combine more than one objects in a single object?
A. Collision
B. Merge
C. Group
D. Combine

## The correct answer ( C) Group

The option that is used to combine more than one object in a single object is Group. Group is a feature in many graphics software applications that allows you to combine multiple objects into a single object. This can be useful for organizing your objects or for making it easier to manipulate them.
163) A collection of web pages linked together in a particular order is known as $\qquad$
A. Search Engine
B. Web Browser
C. Website
D. Web Server

The correct answer ( C) Website
A collection of web pages linked together in a particular order is known as a website. Websites are hosted on web servers and can be accessed by users through the internet. Websites can be used for a variety of purposes, such as providing information, selling products, or providing entertainment.
164) The shortcut key to copy a file is $\qquad$
A. $\operatorname{ctrl}+\mathrm{V}$
B. ctrl + C
C. alt +C
D. shift + C

The correct answer (B) ctrl + C
The shortcut key to copy a file is ctrl + C. This shortcut key works in most operating systems and file managers. When you press ctrl + C, the file is copied to the clipboard. You can then paste the file into a different location by pressing ctrl + V.
165) A web page is located by using a $\qquad$
A. Uniformly Reachable Links
B. Uniform Resource Locator
C. Universal Record Linking
D. Universal Record Locator

The correct answer (B) Uniform Resource Locator

A web page is located by using a Uniform Resource Locator (URL). A URL is a unique address that identifies a web page on the internet. URLs are made up of several parts, including the protocol, the domain name, and the path to the web page.
166) Each computer connected to the Internet must have

## A. a Unique IP address

B. a modem connection
C. a pentium processor
D. a Web Browser

## The correct answer ( A ) a Unique IP address

Each computer connected to the internet must have a unique IP address. An IP address is a numerical address that identifies a computer on the internet. IP addresses are used by routers and other network devices to route traffic to the correct computer.
167) $\qquad$ is called the brain of a Computer
A. CPU
B. Monitor
C. Motherboard
D. Keyboard

The correct answer (A) CPU
The CPU (Central Processing Unit) is called the brain of a computer. The CPU is the main chip in a computer that controls the execution of instructions. It is responsible for carrying out the basic operations of the computer, such as arithmetic, logic, and input/output.
168) Most commonly available computer keyboard is in $\qquad$ format
A. ABCDEF
B. QWERTY
C. QOLTY
D. ALTER

The correct answer (B) QWERTY
The QWERTY keyboard is the most commonly available computer keyboard format. It was invented by Christopher Sholes in 1873 and is still the most popular keyboard layout in use today.
169) Which of these services will not be provided by a typical Internet Service Provider (ISP)?
A. An e-mail address
B. Technical Help
C. Modem
D. Internet Connection

## The correct answer (A) An e-mail address

While ISPs often offer internet connectivity and related services, such as technical help and providing modems, the provision of an e-mail address is not necessarily a standard service offered by all ISPs. Email services are typically offered by email providers or webmail services, which may be separate from the ISP. Users can obtain an email address from various providers, including free email services such as Gmail, Yahoo Mail, or Outlook.com, independent of their ISP.
170) Which of the following items is not present on the desktop?
A. Icon
B. Taskbar
C. Folder
D. Disk Drive

The correct answer (D) Disk Drive
A disk drive is not present on the desktop. The desktop is a graphical user interface (GUI) element that displays icons, shortcuts, and other items on the computer screen. Disk drives are physical devices that are used to store data on disks.
171) What is the function of UPS ?
A. Increase speed of computer
B. Provides Internal Connection
C. Provides Storage
D. Provides backup power

The correct answer ( $D$ ) Provides backup power
A UPS (Uninterruptible Power Supply) is a device that provides backup power to a computer in the event of a power outage. This allows the computer to continue to run without interruption, which can prevent data loss and system damage.
172) Domain names always have two or more parts, separated by a __
A. period (called dot)
B. hyphen
C. comma
D. semicolon

## The correct answer (A) period (called dot)

Explanation: Domain names always have two or more parts, separated by a period (called dot). For example, the domain name for Google is www.google.com. The first part of the domain name is the domain name, which is a unique name that identifies a website. The second part of the domain name is the top-level domain (TLD), which is a two-letter abbreviation that indicates the type of website. For example, the TLD for Google is .com, which indicates that it is a commercial website.
173) ICT stands for
A. Information and Communication Technology
B. Information and Call Technology
C. Information and Computer Technology
D. Information and Connection Technology

The correct answer (A) Information and Communication Technology
Explanation: ICT stands for Information and Communication Technology. It is a term that refers to the use of technology to communicate and share information. ICT includes a wide range of technologies, such as computers, the internet, and mobile phones.
174) Which of the following programs starts as soon as the computer gets switched on?
A. Windows Explorer
B. Operating System
C. MS - Office
D. Text Editor

## The correct answer (B) Operating System

Explanation: The operating system is the program that controls the basic functions of the computer. It is the first program that starts when the computer is turned on, and it is responsible for loading other programs and managing the computer's resources.
175) A $\qquad$ is the location or container in which files can be stored.
A. Library
B. Utility
C. Folder
D. Recycle Bin

## The correct answer (C) Folder

Explanation: A folder is a location or container in which files can be stored. Folders can be nested within other folders, which allows you to organize your files in a hierarchical manner.
176) Which of the following is a model document that can be used to create another document?
A. Sample
B. Model
C. Style
D. Template

The correct answer ( $D$ ) Template
Explanation: A template is a model document that can be used to create another document. Templates typically include the formatting and structure of the document, as well as placeholder text that can be customized.
177) Physical Structure of a computer is called $\qquad$
A. Malware
B. Application
C. Hardware
D. Software

## The correct answer ( C) Hardware

Explanation: The physical structure of a computer is called hardware. Hardware includes the physical components of the computer, such as the CPU, the memory, and the hard drive.
178) When you quickly press and release the left mouse button twice, you are $\qquad$
A. Double - Clicking
B. Secondary - Clicking
C. Primary - Clicking
D. Pointing

## The correct answer (A) Double - Clicking

Explanation: When you quickly press and release the left mouse button twice, you are double-clicking. Doubleclicking is a way to select an item and open it.
179) What is the permanent in-buit memory of a computer called?
A. CPU
B. CD-ROM
C. RAM
D. ROM

The correct answer ( $D$ ) ROM
Explanation: ROM (Read-Only Memory) is the permanent in-built memory of a computer. It is a type of memory that can only be read from, and not written to. ROM contains the computer's BIOS (Basic Input/Output System), which is a set of instructions that tell the computer how to start up.
180) All of the following are storage devices except
A. Printers
B. DVD Drive
C. Hard Disk Drive
D. USB Drive

The correct answer (A) Printers
Explanation: Printers are not storage devices. They are output devices that are used to print documents. Storage devices are used to store data, such as files, images, and videos.

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