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Home Assignment for SSC & Railway Exam 2020 Aspirants

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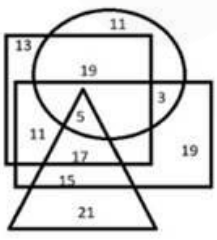
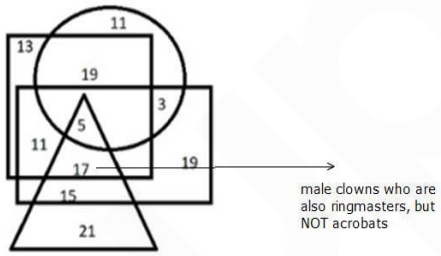
1. **Select the number that can replace the question mark (?) in the following series.**
17, 20, 15, 22, 13, ?
A. 2
B. 4
C. 24
D. 22
Ans. C
Sol.
Logic is-
17+3=20
20-5=15
15+7=22
22-9=13
13+11=24
Hence, option C is the correct answer.

2. **Four words have been given, out of which three are alike in some manner, while one is different. Select the odd word.**
A. Virtue
B. Righteousness
C. Probity
D. Conduct
Ans. D
Sol.
Virtue, Righteousness and Probity are synonym words that imply behavior.
Conduct is the manner in which a person behaves.
Hence, option D is the correct answer.

3. **The given Venn diagram represents artists in a circus:**
The triangle represents clowns, the circle represents acrobats, the rectangle represents males and the square represents ringmasters. The numbers given in the diagram represent the number of persons in that particular category.

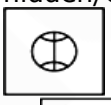


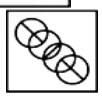
How many male clowns are also ringmasters, but NOT acrobats?
A. 17
B. 5
C. 11
D. 15
Ans. A
Sol.
Here 17 represents male clowns are also ringmasters, but NOT acrobats.



Hence, option A is the correct answer.

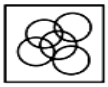
4.From the given answer figures, select the one in which the question figure is hidden/embedded.



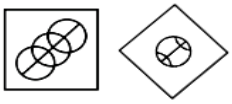
A. 

B.

C.

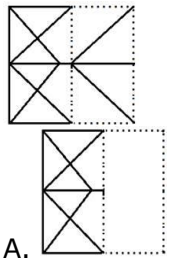
D. 

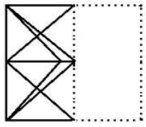
Ans. B

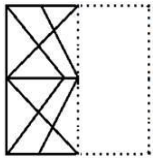
Sol. 

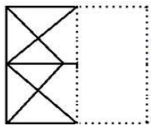
Hence, the correct option is B.

5. **Select the option that depicts how the given transparent sheet of paper would appear if it is folded at the dotted line.**

A. 

B. 

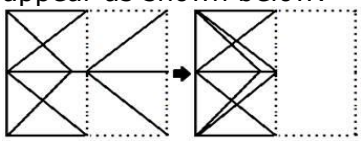
C. 

D. 

Ans. B

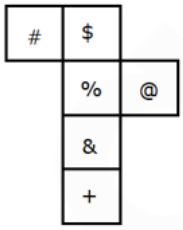
Sol.

When the piece of paper is folded it will appear as shown below:



Hence, option B is the correct answer.

6. **A cube is made by folding the given sheet. In the cube so formed, which of the following pairs of symbols will be on opposite sides?**



A. @ and %

B. & and %

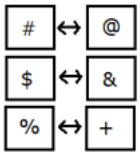
C. # and @

D. $ and +

Ans. C

Sol.

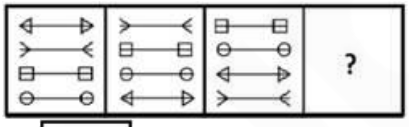
The opposite faces are:

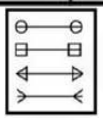


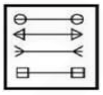
In the above figure, '#' and '@' will be on opposite to each other.

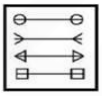
Hence, option C is the correct answer

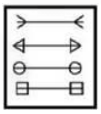
7. **Select the figure that can replace the question mark (?) in the following series.**



A. 

B. 

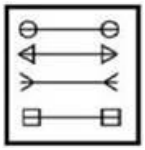
C. 

D. 

Ans. B

Sol.

Logic – 1st arrow shifted to last and others are shifted to one step upward.



Hence, option B is the correct answer.

8. **Four words have been given, out of which three are alike in some manner and one is different. Select the odd word.**

A. Asia

B. Africa

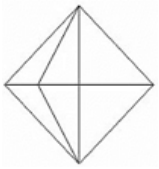
C. Europe

D. Russia

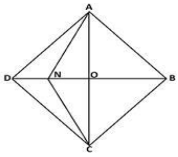
Ans. D

Sol.

Asia, Africa and Europe are continent, but Russia is country.
Hence, option D is the correct answer.
9.How many triangles are there in the given figure?



A. 12
B. 13
C. 15
D. 18
Ans. C



Sol.
Triangles in the given figure are –
AOB, BOC, COD, DOA,
ADB, BAC, CBD, DCA,
ANO, CNO, AND, CDN,
ANC, ANB, CNB.
Thus, option C is right.

10. **Consider the given statement/s to be true and decide which of the given conclusions/assumptions can definitely be drawn from the given statement.**
Statement:
Poverty is a symptom as well as a consequence of social disorder.
Assumptions:
I. Poverty is a type of social order
II. Poverty is related to social order
A. only I assumption is correct
B. only assumption II is correct
C. Both assumptions I and II are correct
D. Neither assumption I nor II is correct
Ans. D
Sol. Neither of the conclusions is relevant to the statement given
Hence D

11. **Read the passage and answer the questions that follow:**

To the great delight of children, schools were being hurriedly closed, Children of all ages and sizes were running helter-skelter, screaming joyously, 'No school, no school. Tiger, tiger!" They were shouting and laughing and even enjoyed being scared. They seemed to welcome me. I felt like joining them, and bounded away from the restaurant door and trotted along
with them, at which they gleefully cued, "The tiger is coming to eat us: let us get back to the school!"
I followed them through their school gate while they ran up and shut themselves In the school hall securely I ascended the steps of the school, saw an open door at the far end of a veranda, and walked in. It happened to be the headmaster's room. I believed, as I noticed a very dignified man jumping on his table and heaving himself up into an attic. I walked in and flung myself on the cool floor, having a partiality for cool stone floor, with my head under the large desk — which gave me the feeling of being back in the Mempi cave .. As I drowsed. I was aware of cautious steps and hushed voices all around. I was in no mood to bother about anything. All I wanted was a little moment of sleep: the daylight was dazzling. In half sleep I heard the doors of the room being shut and bolted and locked. I didn't care. I slept. While I slept a great deal of consultation was going on. I learnt about It later through my Master, who was in the crowd - the crowd which had gathered after making sure that I had been properly locked up — and was watching. The headmaster seems to have remarked some days later, "Never dreamt in my wildest mood that d have to yield my place to a tiger." A wag had retorted. "Might be one way of maintaining better discipline among the boys."
What probably caused the greatest excitement among the children?
A. Learning that the school would be closed
B. Seeing a tiger getting into the school
C. Watching the tiger run after them
D. Knowing the tiger was coming to eat them

Ans. A
Sol.
The first sentence of this paragraph hints towards the answer to this question "To the great delight of children, schools were being hurriedly closed". The children will not have to go to school, which made them happy. Therefore A is the correct answer.

12. What was the tiger's reaction to the frenzy around him?
A. He just wanted to sleep.
B. He wanted to go back to his cave.
C. He looked for someone to attack.
D. He was afraid of being caught.
Ans. A
Sol.
The sentence "All I wanted was a little moment of sleep" suggests that the tiger just wanted to sleep. Therefore A is the right answer.

13. Where was the tiger just before he ran towards the school?
A. In a cave
B. In the forest
C. In a restaurant
D. At the zoo
Ans. C
Sol.
The answer to this question can be found in the sentence "bounded away from the restaurant door and trotted along with them". It suggests that the tiger was in a restaurant. That is why C is the right answer.

14. Which word describes the tone of the narrative when the headmaster's reaction to the tiger's arrival is mentioned?
A. Humorous
B. Intimate
C. Solemn
D. Threatening
Ans. A
Sol.
The tone of this passage is humorous because it tells about the funny situation of a school where a tiger has entered and the reactions of the children and headmaster are also comic. That is why A is the correct answer.

15. What did a mischievous person say about the headmaster?
A. He should keep the school closed for some time.
B. He should allow the tiger to sleep peacefully.
C. The school would be better managed by the tiger than by him.
D. He should leave the place and go because of his fear of the tiger.
Ans. C
Sol.
The last line of this paragraph – "Might be one way of maintaining better discipline among the boys" – explains the answer to this question that the headmaster was not very good at maintaining discipline at that time. Even a tiger could have done a better job. That is why C is the correct answer.

16. **In the sentence identify the segment which contains the grammatical error.**
The both children go to the same school.
A. The both
B. children go
C. to the
D. same school
Ans. A
Sol.
Option A has the grammatically incorrect part. The use of article before 'the' is incorrect. The is used before a noun to make it specific.

17. **In the sentence identify the segment which contains the grammatical error.**
We had a long discussion at a cup of coffee.
A. of coffee
B. at a cup
C. We had
D. a long discussion
Ans. B
Sol.
Option B has the grammatically incorrect part. There is an incorrect usage of

preposition. At a cup of coffee doesn't make any sense, replace 'at' with 'over'. Over a cup of coffee means to discuss things while having a cup of coffee.

18. **Find a word that is the synonym of-**
DEIFY
A. face
B. worship
C. flatter
D. challenge
Ans. B
Sol. Let's understand the meaning of the given words:
Deify = consider as a god
E.g.: these young men deify financial success
Face = the general outward appearance of something
Worship = attend religious services
E.g.: they worship in the traditional manner
Flatter = make someone feel proud by praising them
Challenge = take exception to
Hence, option B is the correct answer.

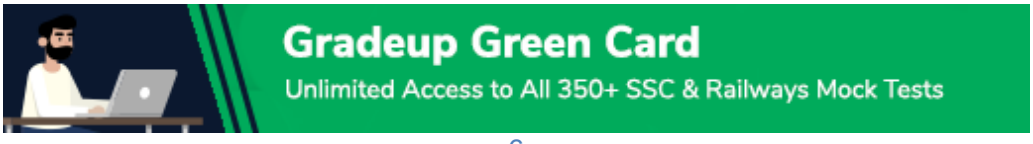
19. Find a word that is the synonym of -
FATUOUS
A. fastidious
B. fantastic
C. funny
D. silly
Ans. D
Sol. Fatuous(मूर्ख) = foolish or silly, especially in a smug or self-satisfied way.
Fastidious(नकचढ़ा) = giving careful attention to detail; hard to please; excessively concerned with cleanliness
Fantastic(अतिकाल्पनिक) = extraordinarily good or great
Hence, option D is the correct answer.

20. In the following question, out of the given four alternatives, select the alternative which best expresses the meaning of the Idiom/Phrase.
To fall flat
A. To flatter
B. To fall in love with someone
C. To have no effect
D. To give bad news
Ans. C
Sol.
The idiom "fall flat" means to have no effect of something. Thus, option C is the correct answer.

21. Select the most appropriate meaning of the given idiom.
Go for a song
A. one's favourite music
B. happy go lucky attitude
C. sold cheaply
D. something which is prohibitively expensive
Ans. C
Sol. The phrase "go for a song" means to be sold be little money, to be bought or sold for much less than the item is worth. Thus, option C is the correct answer.

22. What is the simplified value of $\sqrt{\frac{\text{cosec A} - 1}{\text{cosec A} + 1}}$?
A. cosec A
B. sec A – tan A
C. cosec ^{2}A
D. tan A – cosec A
Ans. B
Sol.
$$\Rightarrow \frac{\sqrt{\text{cosecA} - 1}}{\sqrt{\text{cosecA} + 1}}$$
$$\Rightarrow \frac{\sqrt{\text{cosecA} - 1} \times \sqrt{(\text{cosecA} - 1)}}{\sqrt{\text{cosecA} + 1} \times \sqrt{(\text{cosecA} - 1)}}$$
$$\Rightarrow \frac{\text{cosecA} - 1}{\sqrt{(\text{cosec}^2\text{A} - 1)}} = \frac{\text{cosecA} - 1}{\text{cotA}}$$
$$\Rightarrow \text{secA} - \text{tanA}$$

23. If Sin θ = 20/29, then what is the value of Cos θ?
A. 29/21
B. 21/29
C. 21/20



D. 20/29
Ans. B
Sol. $sin\theta = \frac{20}{29}$

$$cos\theta = \sqrt{1-\left(\frac{20}{29}\right)^2}$$

$$cos\theta = \sqrt{1-\frac{400}{841}}$$

$$cos\theta = \sqrt{\frac{441}{841}} = \frac{21}{29}$$

24. If the 10-digit number 897359y7x2 is divisible by 72, then what is the value of (3x – y), for the possible greatest value of y?
A. 8
B. 3
C. 7
D. 5
Ans. C
Sol.
For divisible by 72, the given number should be divisible by 9 and 8 both.
For divisibility by 8
7x2 should be divisible by 8
So x will be 9,5,1.
For divisibility by 9 difference of sum of all the numbers must be a multiple of 9
= (8+9+7+3+5+9+y+7+x+2)
= 45 + 5 +y + x or 5+y+x
For x = 1,
6+y = 9
y =3
for x =5
y+5+5 = 18
y=8
for x = 9
y+9+5 = 18
y=4
So, highest possible value of y is 8 which comes at x = 5
3x – y = 15 – 8 = 7

25. By selling 18 table fans for Rs.11,664 a man incurs a loss of 10%. How many fans should he sell for Rs.17,424 to earn 10% profit?
A. 22
B. 23
C. 18
D. 20
Ans. A
Sol.
SP (18 fans) = Rs. 11,664
Loss% = 10%
CP (1 fan) = (11644/18) × (100/90) = Rs. 720
Let, he sells "m" fans for Rs. 17,424 to earn 10% profit.
SP (m fans) = Rs. 17,424
Profit% = 10%
CP (m fans) = 17,424 × (100/110) = Rs. 15,840
∴ No. of fans 'm' = 15840/720 = **22**

26. The price of cooking oil increased by 25%. Find by how much percentage a family must reduce its consumption in order to maintain the same budget?
A. 30%
B. 20%
C. 70%
D. 80%
Ans. B
Sol.
Let the original price be Rs 100
and consumption be Rs 100
We know that Expenditure = Price × Consumption
E = 100 × 100 = 10000
Increased price = 100 + 25 = Rs 125
So according to ques :
10000 = 125 × new consumption
New consumption = (10000/125) = Rs 80
Hence percentage decrease in consumption = [(100-80)/100]×100 = 20%

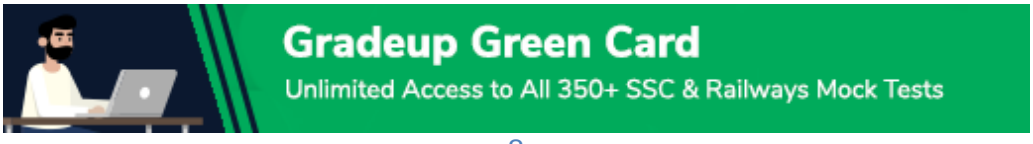
27. A trader had 960 kgs of rice. He sold a part of it at 20% profit and the rest at 8% profit, so that he made a total profit of 12%. How much rice (in kgs) did he sell at 8% profit?

A. 460
B. 560
C. 540
D. 640
Ans. D
Sol. Total rice = 960kg
Total percent of profit = 12%
This type of problem can be easily solved through mixture and allegation method
20% 8%
12%
4 : 8
So rice sold are in ratio of 4:8
So rice sold at 8% profit = (8/12)*960 = 640 Kg

28. A water tap fills a tub in 'p' hours and a sink at the bottom empties it in 'q' hours. If p<q and both tap and sink are open, the tank is filled in 'r' hours, then
A. $\frac{1}{r}=\frac{1}{p}+\frac{1}{q}$
B. $\frac{1}{r}=\frac{1}{p}-\frac{1}{q}$
C. r = p + q
D. r = p - q
Ans. B
Sol. A water tap fills a tub in 'p' hours, then
In 1 hour tub will be filled = $\frac{1}{p}$
And a sink at the bottom empties it in 'q' hours.
In 1 hour tub will be emptied by the sink = $\frac{1}{q}$
Thus, the tank will be filled in r hours = 1/r = 1/p - 1/q

29. The total numbers of males and females in a town is 70,000. If the number of males is increased by 6% and that of the females is increased by 4%, then the total numbers of males and females in the town would become 73520. What is the difference between the number of males and females in the town, in the beginning?
A. 1800
B. 2000
C. 1400
D. 1500
Ans. B
Sol.
The total numbers of males and females in a town is 70,000.
Let males are represented by x and females by y .
Then x + y = 70000 ……..(1)
If the number of males is increased by 6% and that of the females is increased
by 4% then the total numbers of males and females in the town would
become 73520.
$\Rightarrow \frac{106}{100}x+\frac{104}{100}y=73520$ ……..(2)
By subtracting eq1 and 2 we have
$\frac{6x}{100}+\frac{4y}{100}=3520$
3x + 2y = 1 76000
3x + 2[70000 – x] = 176000
x = 36000
y = 70000 – 36000 = 34000
now x – y = 36000 – 34000 = 2000

30. Sudha saves 15% of her income. If her expenditure increases by 20% and savings increase by 60%, then by what percent has her income increased?
A. 35
B. 24
C. 30
D. 26
Ans. D
Sol.
Let income = 100
Saving = 15% = 15
Expenditure = 100-15 = 85
Increased expenditure = 20%
So, Expenditure = $85x\frac{120}{100}$= 102
Increased saving = 60%
So, saving = $15x\frac{160}{100}$ = 24
Total income = Expenditure + saving



= 102 + 24 = 126

% increased income =Δ 126-100)x$\frac{1}{100}$
= 26%

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