## gradeup

## Home Assignment for SSC \& Railways Aspirants



1. निम्न में से किसने मांडले, क्यांमार में आयोजित आई.बी.एस.एफ विश्व बिलियर्ड्स चैम्पियनशिप 2019 जीती है।
A. नाय थवे ओ
C. पंकज अडवाणी
B. आदित्य मेहता
E. सौरव कोठारी

Ans. C
Sol.

- The Bengaluru-based cueist Pankaj Advani increased his tally of world titles to 22 by winning a 4th straight final in the 150-up format at IBSF World Billiards Championship 2019 held in Mandalay, Myanmar. Pankaj Advani defeated Nay Thway Oo of Myanmar.
- Pankaj Advani has brought home a world trophy every year ever since returning from a professional stint in the UK in 2014.
- In the short format of billiards, this is Advani's fifth title in the last six years.
- IBSF is the premier, international, nonprofessional tournament for game of English billiards.
- It was established in 1951 however, the event has been sanctioned by International Billiards and Snooker Federation since 1973.

2. निम्न में से किसने हो ची मिन्ह सिटी में वियतनाम ओपन बी.डब्ल्यू.एफ टूर सुपर 100 बैडमिंटन टूर्नामेंट में पुरुष एकल खिताब जीता है?
A. कौशल धर्मामेर
B. सौरभ वर्मा
C. श्रीकांत किदांबी
D. साई प्रणीत बी.
E. समीर वर्मा

Ans. B
Sol.

- India's Sourabh Verma (26-year) registered a thrilling three-game win over China's Sun Fei Xiang to claim the men's singles title at Vietnam Open BWF Tour Super 100 badminton tournament at the Ho Chi Minh City.
- Sourabh Verma (Madhya Pradesh) recovered from a mid-game slump to beat Sun 21-12, 17-2, 21-14.
- This victory marks Verma's second Super 100 win in the ongoing calendar year.
- Earlier, he had won the Hyderabad open and Slovenian International earlier this year,
- The 2019 Vietnam Open is the seventh Super 100 tournament of the 2019 BWF World Tour and also part of the Vietnam Open championships.
- This tournament is organized by the Ho Chi Minh

City Badminton Association and sanctioned by the BWF.
3. विश्व ओजोन दिवस 2019 का विषय क्या है?
A. Keep Cool and Carry On
B. '32 years and Healing'
C. Ozone and climate: Restored by a world united
D. Ozone Layer Protection: The Mission Goes On E. इनमें से कोई नहीं

Ans. B
Sol.

* September 16 is celebrated as World Ozone Day every year.
* Its aim is to make people aware of the world around the world from the harmful ultraviolet rays of the Sun and the ozone layer that protects our lives. * The theme of this year i.e. World Ozone Day 2019 is '32 years and Healing'. Through this theme, the three-decades effort to protect the ozone layer and protect the climate will be reflected by countries around the world under the Montreal Protocol.


## 4. राष्ट्रपति राम नाथ कोविंद ने निम्न में से किस

 देश में महात्मा गांधी की एक कांस्य प्रतिमा का उद्घाटन किया है?A. स्विट्जरलैंड
B. आइसलैंड
C. स्लोवेनिया
D. स्लोवाकिया
E. हंगरी

Ans. A
Sol.

- President Ram Nath Kovind has inaugurated a bronze bust of Mahatma Gandhi in Villeneuve in Switzerland.
- After unveiling the statue, President Kovind said Mahatma Gandhi's ideology of ahimsa, peace and living in harmony with nature is relevant even today. - The President is on a five- day visit to Switzerland to boost business and cultural ties.
- The bust was unveiled to mark the visit of Mahatma to Villeneuve in 1931.
- The idol sculpted by Ram Vanaji Sutar is placed on a high pedestal made of sandstone extracted from Switzerland.

5. दक्षिण एशिया के सबसे ऊंचे टॉवर 'लोटस टॉवर' का अनावरण निम्न में से किस देश में किया गया है?
A. पाकिस्तान
B. मालदीव
C. श्रीलंका
D. क्यांमार
E. भारत

Ans. C
Sol.

* Sri Lanka has unveiled South Asia's tallest tower called 'Lotus Tower' in Colombo.
* The Lotus Tower (17-storey) is spread over an area of 30,600 sq. metres, with a height of 350 -metre and overall cost, is above USD 100 million.
* The Lotus Tower will function as a TV tower, a hotel, a shopping mall and a conference centre.
Note:
* In 2012, Sri Lanka and China signed the Lotus Tower agreement to build the tower, with China National Electronics Import and Export Corporation being the general contractor.

6. एक लड़के ने 2000 रुपये प्रति साइकिल की दर से दो साइकिल खरीदी। उसने एक साइकिल को $10 \%$ हानि और दूसरी साइकिल को $20 \%$ लाभ पर बेच दिया। उसका कुल लाभ ज्ञात करें?
A. 150 रुपये
B. 200 रुपये
C. 375 रुपये
D. 400 रुपये

Ans. B
Sol.
Overall Profit = profit on second cycle - loss on first cycle
$=20 \%$ of $2000-10 \%$ of $2000=400-200=$ Rs. 200

Short
Trick:
Profit $=2000 \times \frac{20-10}{100}=200$
7. ऐसे वृत्खंड की लंबाई निकालें जिसका केन्द्रीय कोण $90^{\circ}$ का है और वृत्त की त्रिज्या 3.5 से.मी. है?
A. 11 से.मी.
B. 5.5 से.मी.
C. 16.5 से.मी.
D. 22 से.मी.

Ans. B
Sol.
$\mathrm{l}=\mathrm{r} \times \theta$
यहां $\mathrm{l}=$ चाप की लंबाई
$\mathrm{r}=$ वृत्त की त्रिज्या
$\theta=$ केन्द्रीय कोण
$\theta=90^{\circ}=\pi / 2$
$3.5 \times \frac{\pi}{2}=\frac{3.5 \times 22}{2 \times 7}=\frac{77}{14}=5.5 \mathrm{~cm}$
अतः चाप की लंबाई $=5.5$ से.मी.
8. $20 \%$ वार्षिक ब्याज की दर पर 3 वर्ष के लिए चक्रवृद्धि ब्याज और साधारण ब्याज के बीच अंतर 152 रुपये है। उधार दिए गए मूलधन की गणना करें?
A. 1200
B. 1155
C. 1187.5
D. 1167

Ans. C
Sol.
Difference between CI and SI for 3 years $=$ Rs. 152
$P\left(\frac{r}{100}\right)^{2}\left(\frac{r}{100}+3\right)=152$
$P\left(\frac{1}{25}\right)\left(\frac{16}{5}\right)=152$

$$
P=\frac{152 \times 25 \times 5}{16}
$$

$\mathrm{P}=9.5 \times 25 \times 5=1187.5$
9. ABCDEF एक नियमित षट्भुज है, जिसकी भुजा की लम्बाई a है। P और Q क्रमशः AF और CD के मध्य बिंदु हैं। अन्तःवृत की परिधि में एक बिंदु $Y$ इस तरह है, की $\mathrm{QY}=\frac{3}{2} \mathrm{a}$ है| $\theta_{\text {का मान ज्ञात }}$ करें|

A. $60^{\circ}$
B. $45^{\circ}$
C. $30^{\circ}$
D. $50^{\circ}$

Ans. C
Sol.
यदि $A B C D E F$ एक समषटभुज है। तो आसानी से देख सकते हैं कि
$P Q_{\text {अंत:वृत्त का व्यास होगा और }} P Q=2 r$ जहां,
$r=$ समषटभुज के अंत:वृत्त की त्रिज्या
$=\frac{\sqrt{3}}{2} a$
$P Q=2 r=\sqrt{3} a$
यदि $P Q$ एक व्यास है तो $\mathrm{P} औ र ~ Y$ को मिलाने पर $\triangle P Y Q_{\text {एक समकोण त्रिभुज होगा जिसका }}$ $\angle Y=90^{\circ}$ होगा क्योंकि यह एक अर्धवृत्त पर बना है।
$\triangle P Y Q_{\text {, में }}$
$\cos \theta=\frac{Q Y}{P Q}=\frac{\frac{3}{2} a}{\sqrt{3} a}=\frac{\sqrt{3}}{2}=\cos 30^{\circ}$ $\theta=30^{\circ}$
10.
$56457^{8765!}+65432^{5487!}+23451^{8765!}+54323$ में इकाई अंक ज्ञात करें:
A. 4
B. 9
C. 2
D. 3

Ans. B
Sol. All the values greater than 4 ! are completely
divided by 4 .
So in the given equation all the values
8765!, 5487!, 8765!, 9634!
completely divisible by 4 .
Hence unit digit will be
$7^{4}+2^{4}+1^{4}+3^{4}$
$\downarrow$
$1+6+1+1=9$
Hence the unit digit $=9$
11. यदि तीन संख्याओं का योग 92 है|यदि 1 sएवं $2^{\text {nd }}$ संख्या का अनुपात $3: 4$ एवं $1^{\text {nd एवं } 3}{ }^{\text {rddंखंख्या }}$ का अनुपात $2: 3$ है|दूसरी संख्या ज्ञात कीजिये?
A. 16
B. 32
C. 27
D. 24

Ans. B
Sol. Given, the ratio of $1^{s t}$ and $2^{\text {nd }}$ number is $3: 4$.
Let the $1^{\text {st }}$ and $2^{\text {nd }}$ number be 3 a and 4 a respectively.
Also, ratio of $1^{\text {nd }}$ and $3^{\text {rd }}$ number is $2: 3$.
$\therefore 3$ rd number $=\frac{3}{2} \times 1$ st number $=\frac{9 a}{2}$
Given, sum of three numbers is 92
$\therefore 3 a+4 a+4.5 a=92$
$\Rightarrow 11.5 \mathrm{a}=92$
$\Rightarrow \mathrm{a}=8$
$2^{\text {nd }}$ number $=4 a=32$
12. $2^{60}, 4^{40}, 5^{20}, 6^{10}$ में से सबसे बड़ी संख्या ज्ञात कीजिये?
A. $2^{60}$
B. $4^{40}$
C. $5^{20}$
D. $6^{10}$

Ans. B
Sol. $2^{60}=\left(2^{6}\right)^{10}=(64)^{10}$
$4^{40}=\left(4^{4}\right)^{10}=(256)^{10}$
$5^{20}=\left(5^{2}\right)^{10}=(25)^{10}$
$6^{10}=(6)^{10}=(6)^{10}$
Gratest term $=4^{40}$
13. पांच अंकों की सबसे छोटी संख्या को जब 3,6 , 8 और 12 से विभाजित किया जाता है तो ये प्रत्येक मामले में शेषफल के रूप में 2 छोड़ देती है।संख्या ज्ञात करें:
A. 10008
B. 10010
C. 10002
D. 10012

Ans. B
Sol. Least number of five digits $=10000$ $\mathrm{Lcm} \quad(3, \quad 6, \quad 8, \quad 12)=24$ When 10000 is divided by 24 , the remainder is 16 . Least number of five digits divisible by $3,6,8$ and 12 is
$=10000+(24-16)$
$=10008$
Required number which when divided by $3,6,8$ and 12 leaves remainder as 2
$=10008+2=10010$
14. |||Common||| Direction: Read the passage carefully and choose the best answer to each question out of the four alternatives. Many years ago, I was the chief guest at a function. This was held in a hostel for poor students that had been built by a philanthropist. Food and shelter were free, but students had to bear other expenses like tuition and clothing. In my younger days, I had come across many families who would look after students who were economically backward but otherwise bright. They used to help them with their fees or clothing and often with their food as well. In those days, most colleges were located in larger towns. Many poor students who came to study in these towns used to stay with these families and would be treated as part of the family. The woman of the house considered this a good deed and helped the poor
students wholeheartedly. Today, the situation is different. Even smaller towns have schools and colleges, so this custom has disappeared. While I was sitting on the dais, I remembered the past and congratulated the person who had built the hostel. It was a good deed and of great help to many students. The hostel secretary told me about some of the students in the hostel who had secured ranks but had a problem paying their tuition fees. He said, "Madam, this year we have three students from different disciplines who have secured ranks. All of them are from extremely poor families. They have one more year to complete their degrees," What are they studying?" "One is in medicine, the second in engineering and the third in commerce." "Can I meet them after the function?" The function went on as usual. Often, at such functions too much praise is lavished on the chief guest. Sometimes, they even make exaggerated and false claims about the chief guest. I feel this unnecessary praising is the highest form of corruption where people are easily fooled and it encourages those who are praised to develop an inflated opinion of themselves. That's why, in the twelfth century, in Karnataka, the great revolutionary leader Basaveshwara warned in his teaching that praise is like a golden gallows. After the function, I met the three poor bright boys whom the secretary had told me about. They were a little puzzled, shy and nervous. All of them had the same story: father in a small job unable to make ends meet, a large family back in the village, no land or any other asset. Only sheer determination to excel in studies had brought them here against all odds. |||End|||
In early times, how did the poor students manage their expenses in towns if college education was not available to them in their villages? A. They used to get regular help from the philanthropist B. Their fees and clothing expenses were borne by the
colleges
C. Many families used to provide them facilities on payment
D. They got help for their fees, clothing, food, etc from families in those towns
Ans. D
Sol. The author tells us that in his younger days, the colleges were located in larger towns and many poor students used to come to those towns to complete their studies. Such students stayed with families which used to help them economically. They helped them with their fees or clothing and often with their food as well. So, option D is correct.
15. Which of the following is/are not true about the hostel?
I. Lodging and boarding arrangements were available to poor students without any payment. II. The hostel was built by the philanthropist who was also the chief guest at the function. III. Tuition and clothing were free of cost for the poor students.
A. I and II
B. I and II
C. II and III
D. All of these

Ans. D
Sol. There is no mention of lodging and boarding arrangements in the given passage. So, statement $I$ is false. It is also mentioned in the passage that only food and shelter were free for poor students, however, they had to pay for their tuition fees as well as for their food. So, statement III is also incorrect. The author came as the chief guest at the function but was not the person who built the hostel. So, option II is also incorrect.
16. Why did the chief guest want to meet the three students?
I. To please the secretary
II. To observe a ritual
III. To impress the secretary
A. I and II
B. II and III
C. I and III
D. None of these

Ans. D
Sol. The hostel secretary told the chief guest that three students of the hostel secured ranks but they belonged to very poor families. The author wanted to know their stories and understand their condition.
17. Why has the practice of staying with families in towns by the students who come from villages disappeared?
A. Families have found that education has become very expensive
B. Higher education is available to students even in smaller towns
C. There is no need for students to go in for higher education these days
D. The situation is altogether different as the educational structure has changed
Ans. B
Sol. It is mentioned in the passage that now a days, even the smaller towns have the facility of higher education, schools and colleges have been opened there as well.
18. Why did the hostel secretary mention the three students to the chief guest?
A. He was not sure of getting the desired help from the chief guest
B. He had a lot of respect for the chief guest
C. The three students were close relatives of the secretary
D. The secretary believed that the chief guest would help the students.
Ans. D
Sol. The three students were from very poor families. They were exceptionally well in their field of studies, however, they did not have sufficient resources to continue their studies. There is no specific reason mentioned in the passage as to why the secretary discussed the issue with the chief guest but out of the given options, only $D$ seems to be logical and relevant.
19. What does the author dislike about functions?
A. The false or exaggerated praise showered on the chief guest
B. Selection of corrupt persons as chief guests
C. The awkward situation created by the audience
D. The shyness and nervousness of the audience

Ans. A
Sol. Refer to the follwing lines of the passage, 'Often, at such functions too much praise is lavished on the chief guest. Sometimes, they even make exaggerated and false claims about the chief guest.'
20. Which of the following was not a common factor among the three students?
A. Subjects of study
B. Family background
C. Lack of resources
D. Intelligence

Ans. A
Sol. The three students about whom the hostel secretary told the author were all exceptionally intelligent, they were all from extemely poor families and did not have sufficient resources. They belonged to different disciplines like one of them was from medicine, the second one was from engineering and the third one was from commerce. So, the correct answer is option A.
21. The three students had come to attend college because of their
A. family insistence
B. poor financial background
C. faith in philanthropists
D. strong willpower

Ans. D
Sol. Refer to the last line of the passage, ' Only sheer determination to excel in studies had brought them here against all odds.'
22. Which of the following is/are the reason/s praise is considered as 'golden gallows'?
I. It provides the audience with false information distracting them from the chief guest's speech. II. It creates wrong notions about themselves in the minds of those being praised. III. It helps people to easily fool the persons being praised.
A. Only I
B. I and II
C. II and III
D. None of these

Ans. C
Sol. From the line of the passage "I feel this unnecessary praising is the highest form of corruption where people are easily fooled and it encourages those who are praised to develop an inflated option of themselves" we can infer that only statements II and III are correct. So, the correct option is C.
23. In the passage what does the word 'bear' mean?
A. Send
B. Ensure
C. Pay
D. Receive

Ans. C
Sol. The word "Bear" has been used in the following line, "Food and shelter were free, but students had to bear other expenses like tuition and clothing". Here, the word 'bear' means to pay for the expenses like tuition and clothing. So, the correct answer is option C.
24. नीचे दिया वेन आरेख, साइकिल, कार और ट्रक प्रयोग करने वाले व्यक्तियों की संख्या को दर्शाता है?


केवल साइकिल प्रयोग करने वालों की संख्या क्या है?
A. 13
B. 10
C. 8
D. 16

Ans. A
Sol.
दिए गए तीन वर्ग में पहले एक कार है, दूसरा एक चक्र है और तीसरा एक ट्रक है जो दी गई आकृति में दिखाया गया है


इस प्रश्न में पूछें कि कितने लोग जो एकमात्र चक्र का उपयोग करते हैं जो कि उपरोक्त आकृति में छायांकित भाग में दिखाया गया है जो कि $=13$ है। तो सही उत्तर विकल्प A है।

25. निम्नलिखित प्रश्न में दिए गए विकल्पों में से | लुप्त | अंक | ज्ञात |
| ---: | ---: | ---: |
| 28 | ? |  |
| 29 | 35 |  |
| 21 | 35 |  |

A. 61
B. 60
C. 59
D. 57

Ans. C
Sol. The series will be,
$28+1=29$
$29+2=31$
$31+4=35$
$35+8=43$
$43+16=$ ?
? = 59
Hence, the correct answer is option C.

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