

Home Assignment

for SSC & Railways Aspirants

1. निर्देश: निम्नलिखित सारणी को ध्यानपूर्वक पढ़ें और नीचे दिए प्रश्नों के उत्तर दें।

एक वर्ष के छह महीनों के दौरान एक दुकानदार द्वारा बेचे गए ड्राई फ्रूट्स की मात्रा (किग्रा में)।

ड्राई फ्रूट्स	जुलाई	अगस्त	सितंबर	अक्टूबर	नवंबर	दिसंबर
बादाम	300	250	230	210	260	220
मूंगफली	350	380	370	365	350	360
काजू	330	350	290	285	300	320
किशमिश	340	310	300	255	230	245

दिए गए सभी महीनों में बेचे जाने वाले काजू की औसत मात्रा और दिए गए सभी महीनों में बेची जाने वाली किशमिश की औसत मात्रा के बीच अंतर ज्ञात करें?

- A. 31.8 किग्रा
B. 32.5 किग्रा
C. 41 किग्रा
D. 16.45 किग्रा
E. इनमें से कोई नहीं

Ans. B

Sol.

Sum of the quantity of Cashew sold from July to December is,

$$330+350+290+285+300+320 = 1875$$

$$\text{Average sold} = 1875/6$$

Sum of quantity of Raisin sold from July to December is,

$$340+310+300+255+230+245 = 1680$$

$$\text{Average sold} = 1680/6$$

Difference = Average selling of Cashew – average selling of Raisin

$$\frac{1875}{6} - \frac{1680}{6}$$

$$\text{Difference} = \frac{6}{6} - \frac{6}{6}$$

= 32.5 kg
Hence correct option is (b).

2. नवंबर महीने में बेची गई मूंगफली की मात्रा उसी महीने में बेचे गए ड्राई फ्रूट्स की कुल मात्रा की लगभग कितनी प्रतिशत है?

- A. 30.70% B. 42.5%
C. 33.65% D. 28.75%
E. इनमें से कोई नहीं

Ans. A

Sol.

In the month of May, the amount of Peanut sold is = 350 kg

Total quantity of dry fruits sold in the month of November =

$$260+350+300+230= 1140 \text{ kg}$$

Required percentage

$$\frac{350}{1140} \times 100 \approx 30.70$$

Hence, option (a) is correct.

3. दिए गए महीनों के दौरान बेचे गए बादाम की कुल मात्रा और मूंगफली की कुल मात्रा के बीच अंतर, दिसंबर महीने में बेचे गए ड्राई फ्रूट्स की कुल मात्रा का कितना प्रतिशत है?

- A. 61.57% B. 77.25%
C. 60% D. 55%

E. इनमें से कोई नहीं

Ans. A

Sol.

The Sum of quantity of Peanut sold in all the given months,

$$350+380+370+365+350+360 = 2175 \text{ kg}$$

The Sum of quantity of Almond sold in all the given months,

$$300+250+230+210+260+220= 1470 \text{ kg}$$

$$\text{Difference} = 2175 - 1470 = 705 \text{ kg}$$

Sale of Dry fruits in the month of

$$\text{December} = 220 + 360 + 320 + 245$$

$$\text{Sale of Dry fruits in December} = 1145 \text{ kg}$$

$$\text{Percentage} = \frac{705}{1145} \times 100 = 61.57\%$$

Hence (a) is the correct option.

4. जुलाई से नवंबर तक बेचे गए ड्राई फ्रूट्स प्रति माह प्रति श्रेणी की औसत मात्रा ज्ञात करें? (दशमलव के बाद दो अंकों तक)

- A. 250 किग्रा B. 480 किग्रा
C. 323.75 किग्रा D. 302.75 किग्रा

E. इनमें से कोई नहीं

Ans. D

Sol.

Sum of quantity of Almond sold from July to November

$$=300+250+230+210+260=1250 \text{ kg}$$

Sum of quantity of Peanut sold from July to November

$$= 350+380+370+365+350 = 1815 \text{ kg}$$

Sum of quantity of Cashew sold from July to November.
 = 330+350+290+285+300 = 1555 kg
 Sum of quantity of Raisin sold from July to November
 = 340+310+300+255+230 = 1435
 Sum of quantity of all Dry fruits in all the given months from July to November
 1250+1815+1555+1435 = 6055

$$\text{Average} = \frac{6055}{20} = 302.75 \text{ kg}$$

Hence (d) is the correct option.

5. अगस्त महीने में बेचे गए ड्राई फ्रूट्स की कुल मात्रा का सितंबर महीने में बेचे गए ड्राई फ्रूट्स की कुल मात्रा से अनुपात ज्ञात करें?

- A. 230:2491 B. 129:119
 C. 22:19 D. 24:31

E. इनमें से कोई नहीं

Ans. B

Sol.

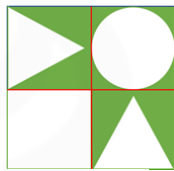
The total quantity of Dry Fruits sold in the month of August,
 250+380+350+310 = 1290

The total quantity of Dry fruits sold in the month of September,
 230+370+290+300 = 1190

Ratio of sold quantity of dry fruit in August and September = 1290:1190
 1290/1190 = 129:119

Hence (b) is the correct option.

6. दी गई आकृति में 14 सें.मी लंबाई की भुजा के एक वर्ग को चार समान भाग में विभाजित किया जाता है। वर्ग के दो भाग के भीतर दो सबसे बड़े संभावित समबाहु त्रिभुज खींचे जाते हैं और वर्ग के तीसरे भाग के भीतर एक वृत्त खींचा जाता है। छायांकित क्षेत्र का क्षेत्रफल क्या है?



A. $\frac{1}{2} (31 - 7\sqrt{3})$ सेंमी²

B. $\frac{3}{2} (31 - 7\sqrt{3})$ सेंमी²

C. $\frac{5}{2} (31 - 7\sqrt{3})$ सेंमी²

D. $\frac{7}{2} (31 - 7\sqrt{3})$ सेंमी²

Ans. D

Sol.

Area of larger

$$\text{square} = 14 \times 14 = 196 \text{ cm}^2$$

Area of smaller

$$\text{square} = 7 \times 7 = 49 \text{ cm}^2$$

Area of equilateral

$$\text{triangle} = \frac{\sqrt{3}}{4} \times 7^2 = \frac{49\sqrt{3}}{4} \text{ cm}^2$$

Area of the

$$\text{circle} = \frac{22}{7} \times \frac{7}{2} \times \frac{7}{2} = \frac{77}{2} \text{ cm}^2$$

Area of the shaded region

$$= 196 - \left(49 + 2 \times \frac{49\sqrt{3}}{4} + \frac{77}{2} \right)$$

$$= 196 - 49 - \frac{49\sqrt{3} + 77}{2}$$

$$= \frac{294 - 49\sqrt{3} - 77}{2}$$

$$= \frac{7}{2} (31 - 7\sqrt{3}) \text{ cm}^2$$

7. यदि

$$(x^2 - 1)(x + 3)(x - 11)(x + 8)(x + 2) = c_0 + c_1x + c_2x^2 + \dots + c_6x^6$$

है, तो c_5 का मान ज्ञात करें?

- A. 1 B. 2
 C. -2 D. 3

Ans. B

Sol.

$$(x^2 - 1)(x + 3)(x - 11)(x + 8)(x + 2)$$

$$= (x - 1)(x + 1)(x + 3)(x - 11)(x + 8)(x + 2)$$

$$\Rightarrow \text{coefficient of } x^6 \text{ is } 1$$

$$\Rightarrow c_6 = 1$$

Roots are 1, -1, -2, -3, -8, 11.

we know that (- sum of the roots) is the coefficient for x^5

Sum of the roots

$$1 - 1 - 2 - 3 - 8 + 11 = -c_5/c_6 = -c_5$$

$$c_5 = 2$$

8. यदि $\sin x - \tan^2 x = 1$ है, तो $\sec^4 x + \operatorname{cosec} x$ का मान ज्ञात करें?

- A. 1 B. -1
C. 2 D. 0

Ans. A

Sol.

$$\sin x - \tan^2 x = 1$$

$$\sin x = 1 + \tan^2 x$$

$$\sin x = \sec^2 x$$

Now,

$$\sec^4 x + \operatorname{cosec} x$$

$$= (\sec^2 x)^2 + \frac{1}{\sin x}$$

$$= \sin^2 x + \frac{1}{\sec^2 x}$$

$$= \sin^2 x + \cos^2 x$$

$$= 1$$

9. In the following passage, some words have been deleted. Fill in the blanks with the help of the alternatives given. Select the most appropriate option for each blank.

Scientific management of the glacial rivers and lakes of the Himalayas is the (###Q1###) way to take care of the irrigation and drinking water needs of millions of people in the Gangetic plains. (###Q2###) milk and dumping bodies would not bring purity to any river. Some religious persons have expressed (###Q3###) that the Gangotri glacier is receding, and Ma Ganga would disappear like the ancient river Saraswati. In the Harappan Age of the river Saraswati, geological faults were not known. Today, with the (###Q4###) in science, we are in a position to know about the natural changes likely to occur in the future. Geological and hydrological knowledge makes it possible to manage the (###Q5###) of natural resources. We cannot control natural forces but we can plan and prepare for their better management.

rivers and lakes of the Himalayas is the _____ way to take care

- A. some B. no
C. only D. many

Ans. C

Sol. Author, in the first line of the above paragraph, gives the solution to protect glacial rivers and lakes of the Himalayas and he thinks it is the only way to do so. So, in the context of the above paragraph, the word "only" is the correct fit.

10. _____ milk and dumping bodies would not

- A. dumping B. pouring
C. spilling D. discharging

Ans. B

Sol. Causing milk to flow from a container in a steady stream is called 'Pouring of milk'. Therefore, in the context of the above sentence, the word 'pouring' is the correct fit for the given blank.

11. Some religious persons have expressed _____ that

- A. view B. concern
C. threat D. chance

Ans. B

Sol. Above paragraph gives a sense of worriedness about the deteriorating condition of Gangotri glacier. So, the word which correctly fit for the given blank is 'Concern'. Words 'view' (which means look at or inspect), Threat (which means a statement of an intention to inflict pain, injury, damage, or other hostile action) and Chance (which means possibility) do not impart correct sense to the above sentence.

12. Today, with the _____ in science

- A. reformation B. encouragement
C. growth D. advancement

Ans. D

Sol. The word 'advancement', which means a development or improvement from the earlier situation, is the correct fit for the given blank. The words given in other options like, Reformation (which means to reconstruct), Encouragement (which means to give someone support, confidence, or hope) or Growth (which means increase in size or something), do

not impart correct sense to the sentence.

13. makes it possible to manage the _____ of natural resources

- A. sustainability B. stability
C. security D. durability

Ans. A

Sol. From the second last line of the above paragraph the author wants to say that with the help of Geological and hydrological knowledge we can make judicious use of available natural resources and also can protect and preserve it for the upcoming generations. So, the word 'Sustainability', which means the same, is the correct fit for the given blank.

14. In the following passage, some words have been deleted. Fill in the blanks with the help of the alternatives given. Select the most appropriate option for each blank.

There has been a sharp (###Q1###) in the population of vultures in the country which has come down from 40 million to 19,000 in a (###Q2###) of over three decades, the Environment Ministry told the Parliament on Friday. The crash in population was first (###Q3###) in the mid-90s and by 2007, there was a 99% decline in the population of the vultures. The Minister said nationwide vulture surveys are being (###Q4###) out by the Bombay Natural History Society (BNHS) every four years sponsored by the Ministry of Environment and Forest Departments of various States (###Q5###) 1990. Based on the latest survey carried out in 2015 and the results published in 2017, there were about 6,000 White-backed vultures, 12,000 Long-billed vultures and 1,000 Slender-billed vultures.

There has been a sharp _____ in

- A. rise B. decline
C. diminish D. lowering

Ans. B

Sol. 'Decline' is the correct fit for the given blank, as it means a gradual and continuous loss of strength, numbers, quality, or value. Above paragraph discusses the cause of drastic downfall in

the number of vultures so the word 'Rise' cannot be used for the given blank. In the context of the above sentence the word 'Diminish' or 'Lowering' also do not fit correctly for this particular blank.

15. come down from 40 million to 19,000 in a _____ of over three decades,

- A. length B. stretch
C. span D. difference

Ans. C

Sol. 'Span', which means 'the length of time for which something lasts', is the most correct fit among the available options for the given blank. Other options like, Length (the amount of time occupied by something), Stretch (which means extend or spread over an area or period of time) or Difference (which means remainder) are not as suitable to use here as the word 'Span'.

16. The crash in population was first _____ in the mid-90s

- A. noticed B. invented
C. got D. confirm

Ans. A

Sol. From this particular line the author wants to say that, the reduction in the population was first observed or detected in the mid-90s. So, in the context of this particular line, the correct fit for the blank is 'Noticed'.

17. nationwide vulture surveys are being _____ out

- A. let B. carried
C. conveyed D. taken

Ans. B

Sol. Surveys are always being 'carried out' or 'conducted out' and not 'let out or taken out'. 'Conveyed' means 'to pass the message from one person to other'. So, the correct fit for the given blank is 'Carried'.

18. Environment and Forest Departments of various States _____ 1990.

- A. for B. since
C. from D. about

Ans. B

Sol. 'For' is used to denote period of time so it cannot be used here. 'From'

usually refers to a finished action or an action that is in the future but here, the action discussed is not yet finished, so use of the word 'From' is incorrect. 'About' shows uncertainty so its use is also incorrect. 'Since' denotes point of time so it is the correct fit for the given blank.

19. विश्व फोटोग्राफी दिवस (डब्ल्यूपीडी) प्रत्येक वर्ष किस दिन मनाया जाता है।

- A. 20 अगस्त B. 19 अगस्त
C. 11 अगस्त D. 15 अगस्त
E. इनमें से कोई नहीं

Ans. B

Sol. World Photography Day is observed every year on 19th August to inspire photographers across the planet to share a single photo with the world. On this day, camera persons take stock of the different kind of photography that has come to the fore.

20. रासायनिक उद्योग को बढ़ावा देने के लिए भारत का पहला केंद्रीय रासायनिक इंजीनियरिंग और प्रौद्योगिकी संस्थान (CICET) किस राज्य में स्थापित किया जाएगा?

- A. महाराष्ट्र B. कर्नाटक
C. गुजरात D. दिल्ली
E. हरियाणा

Ans. C

Sol.

- According to Union Minister of State for Chemical & Fertilizers Mansukh Mandaviya, India's first Central Institute of Chemical Engineering & Technology (CICET) will be set up in Gujarat to give boost to the chemical industry.
- The CICET will come up either at Ahmedabad or Surat.
- The Minister of State for Chemical and Fertilisers also announced setting up of another campus of the Central Institute of Plastic Engineering & Technology (CIPET) in Valsad at the cost of Rs 54 crore for the benefit of tribal students and the plastic industry.
- The Central government is also planning to set up a Plastic Waste

Management Centre in Ahmedabad to find out solutions to systematic segregation and recycling of plastic waste.

21. निम्न में से किस शहर ने शिक्षक शिक्षा पर अंतर्राष्ट्रीय सम्मेलन की मेजबानी की?

- A. नई दिल्ली B. रांची
C. पटना D. पुणे
E. भोपाल

Ans. A

Sol.

Union Human Resource Development Minister Ramesh Pokhriyal 'Nishank' has inaugurated an international conference on teacher education in New Delhi. The two-day event is being organized by the National Council of Teacher Education as part of silver jubilee celebration of its establishment in 1995.

22. निम्न में से किसे वोडाफोन आइडिया के एम.डी और सी.ई.ओ के रूप में नियुक्त किया गया है?

- A. के. थंगराज B. मधुर भाटिया
C. रविंदर टक्कर D. अंकिता गुलाटी
E. बालेश शर्मा

Ans. C

Sol.

- Ravinder Takkar has been appointed as the MD and CEO of Idea-Vodafone with immediate effect.
- He has replaced Balesh Sharma after his resignation as the chief executive officer of Vodafone Idea (VIL).
- Currently, Mr Takkar is a board member of Vodafone Idea and Indus Towers, where he is responsible for all Vodafone Group interests in India.

23. निम्न में से किस राज्य ने 'लेमरू एलीफेंट रिजर्व' स्थापित करने की घोषणा की है?

- A. मणिपुर B. ओडिशा
C. छत्तीसगढ़ D. हरियाणा
E. पंजाब

Ans. C

Sol.

Chhattisgarh Chief Minister Bhupesh Baghel has announced to set up 'Lemru

Elephant Reserve' to provide permanent habitat for the wild elephants in the state.

24. विश्व मानवतावादी दिवस 2019 का विषय क्या है?

- A. NotATarget
- B. Women Humanitarians
- C. We are Humanitarian Workers
- D. People Helping People
- E. I Was Here

Ans. B

Sol.

The theme of world humanitarian day 2019 was 'Women Humanitarians'.

The day is observed annually to pay tribute to the humanitarian aid workers who endanger their lives for humanitarian service as well as to rally support for the people affected by crisis across the world.

25. संस्कृत में 2019 महर्षि बदरायण व्यास सम्मान किसने प्राप्त किया है?

- A. सुजाता त्रिपाठी
- B. अनोमा श्रीराम साखरे
- C. संतोष थोथिंगल
- D. चांद किरणसलुजा
- E. उपरोक्त में से कोई नहीं

Ans. A

Sol.

• President of India Ramnath Kovind awarded Maharshi Badrayan Vyas Samman to various scholars of Sanskrit, Persian, Arabic, Pali, Prakrit, Classical Kannada, Classical Telugu, Classical Malayalam and Classical Odiya for year 2019.

• Prof. SujataTripathi received the award for his contribution in Sanskrit.

रेलवे NTPC 2019 मॉक टेस्ट सीरीज़

1. नवीनतम परीक्षा पैटर्न पर आधारित
2. हिंदी तथा इंग्लिश में उपलब्ध
3. ऑल इंडिया रैंक और प्रदर्शन विश्लेषण
4. समाधान की विस्तृत विवरण
5. वेब और मोबाइल पर उपलब्ध

