

# Combined Graduate Level Examination 2020 Tier-I

Roll Number	Join YouTube Channel
Venue Name	iON Digital Zone iDZ 2 Sector 62
Exam Date	13/08/2021
Exam Time	3:00 PM - 4:00 PM
Subject	Combined Graduate Level Examination 2020 Tier 1

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## Section : General Intelligence and Reasoning

**Q.1** Select the option in which the words share the same relationship as that shared by the given pair of words.

Handwriting : Graphology

Ans ☒ 1. Earthquakes : Pomology

☒ 2. Fossils : Pedology

☒ 3. Matter : Physics

☒ 4. Soil : Ornithology

Question ID : 81616113823

Status : Answered

Chosen Option : 3

**Q.2** Four words have been given, out of which three are alike in some manner and one is different. Select the word that is different.

Ans ☒ 1. Raipur

☒ 2. Mumbai

☒ 3. Ahmedabad

☒ 4. Ranchi

Question ID : 81616112609

Status : Answered

Chosen Option : 1

**Q.3** 'A + B' means 'A is the husband of B'.  
'A % B' means 'A is the father of B'.  
'A \$ B' means 'A is the mother of B'.

If 'Y + Z \$ H % C \$ D + S', then which of the following statements is INCORRECT?

Ans ☒ 1. Z is the maternal grandmother of C.

☒ 2. C is the mother-in-law of S.

☒ 3. H is the son of Y.

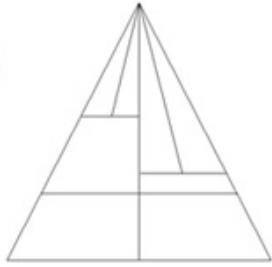
☒ 4. H is the maternal grandfather of D.

Question ID : 81616113827

Status : Answered

Chosen Option : 1

Q.4 How many triangles are there in the given figure?



- Ans
- ☒ 1. 11
  - ☒ 2. 8
  - ☒ 3. 15
  - ☒ 4. 12

Question ID : 81616112625

Status : Answered

Chosen Option : 1

Q.5 Study the given pattern carefully and select the number that can replace the question mark (?) in it.

25 64 81  
23 41 38  
18 33 ?

- Ans
- ☒ 1. 29
  - ☒ 2. 17
  - ☒ 3. 27
  - ☒ 4. 19

Question ID : 81616112822

Status : Answered

Chosen Option : 1

Q.6 Select the correct combination of mathematical signs that can sequentially replace the \* signs and make the equation correct.

$68 * 138 * 23 * 54 * 20$

- Ans
- ☒ 1.  $\times, +, =, \div$
  - ☒ 2.  $=, \times, +, \div$
  - ☒ 3.  $+, \div, -, =$
  - ☒ 4.  $\times, +, -, =$

Question ID : 81616112622

Status : Not Answered

Chosen Option : --

**Q.7** Select the combination of letters that when sequentially placed in the blanks of the given series will complete the series.

**Q \_ A D \_ R \_ K A D P \_ Q K A \_ P R Q K \_ D \_ R**

**Ans** ☒ 1. K, P, Q, R, D, A, P

☐ 2. K, P, R, Q, D, A, P

☐ 3. K, P, Q, R, A, D, P

☐ 4. K, P, Q, R, D, A, Q

Question ID : **81616113826**

Status : **Answered**

Chosen Option : **1**

**Q.8** In a certain code language, 'CROW' is coded as '64' and 'EAGLE' is coded as '125'. How will 'PARROT' be coded in that language?

**Ans** ☐ 1. 232

☒ 2. 216

☐ 3. 249

☐ 4. 88

Question ID : **81616112613**

Status : **Not Answered**

Chosen Option : **--**

**Q.9** Select the option that is related to the third word in the same way as the second word is related to the first word.

**Nascent : Young :: Adjunct : ?**

**Ans** ☐ 1. Rigid

☒ 2. Supportive

☐ 3. Functional

☐ 4. Against

Question ID : **81616114226**

Status : **Answered**

Chosen Option : **2**

**Q.10** Select the number-pair in which the two numbers share a different relationship from that shared by the two numbers in the rest of the number-pairs.

**Ans** ☒ 1. (178, 308)

☐ 2. (215, 338)

☐ 3. (169, 292)

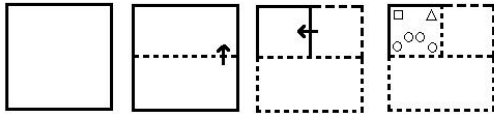
☐ 4. (11, 134)

Question ID : **81616112619**

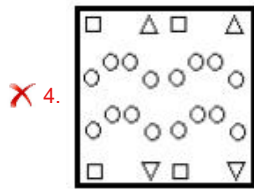
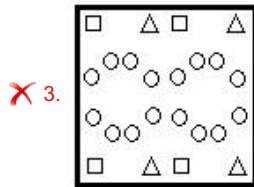
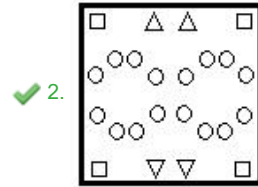
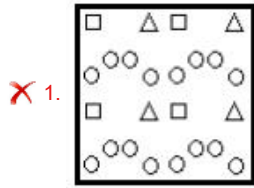
Status : **Marked For Review**

Chosen Option : **1**

**Q.11** The sequence of folding a piece of paper and the manner in which the folded paper has been cut is shown in the following figures. How would this paper look when unfolded?



Ans



Question ID : 81616113841

Status : Answered

Chosen Option : 2

**Q.12** In a certain code language, 'COUNTRY' is written as 'BOWKXLF'. How will 'DESPAIR' be written in that language?

Ans ✗ 1. ULDSVHG

✓ 2. UFDMBVG

✗ 3. GBVMDFU

✗ 4. GBPSXIO

Question ID : 81616112814

Status : Answered

Chosen Option : 2

**Q.13** In a training camp, three types of games hockey, cricket and badminton were taught. 14% of the total students received cricket training. 22% of the remaining students received training for hockey. Half of the remaining students received training for badminton. What percentage of students did NOT receive training in any of the three games?

- Ans**
- ☒ 1. 24.52%
  - ☒ 2. 33.54%
  - ☒ 3. 32.56%
  - ☒ 4. 67.52%

Question ID : **81616113835**

Status : **Not Answered**

Chosen Option : --

**Q.14** Four letter-clusters have been given, out of which three are alike in some manner and one is different. Select the letter-cluster that is different.

- Ans**
- ☒ 1. TYDI
  - ☒ 2. ZEJP
  - ☒ 3. HMRW
  - ☒ 4. NSXC

Question ID : **81616114224**

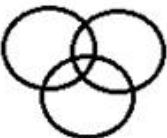

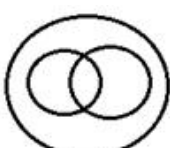

Status : **Answered**

Chosen Option : 1

**Q.15** Select the Venn diagram that best illustrates the relationship between the following classes.

Women, Mothers-in-law, Housewives

**Ans**

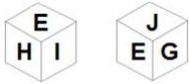
- ☒ 1. 
- ☒ 2. 
- ☒ 3. 
- ☒ 4. 

Question ID : **81616112832**

Status : **Answered**

Chosen Option : 3

**Q.16** Two different positions of the same dice are shown, the faces of which are marked with the letters E, F, G, H, I and J. Select the letter that will be on the face opposite to the face having the letter 'J'.



- Ans
- ☒ 1. F
  - ☒ 2. E
  - ☒ 3. I
  - ☒ 4. G

Question ID : 81616112626  
Status : Answered  
Chosen Option : 3

**Q.17** Select the correct option that indicates the arrangement of the given words in the order in which they appear in an English dictionary.

1. Terminal
2. Terminology
3. Temperature
4. Tamarind
5. Tame
6. Tertiary

- Ans
- ☒ 1. 4, 5, 3, 1, 2, 6
  - ☒ 2. 4, 5, 3, 2, 1, 6
  - ☒ 3. 4, 5, 1, 3, 2, 6
  - ☒ 4. 4, 5, 3, 1, 6, 2

Question ID : 81616114223  
Status : Answered  
Chosen Option : 1

**Q.18** Select the correct mirror image of the given combination when the mirror is placed at MN as shown.



- Ans
- ☒ 1. 9 p ^ b X e 7
  - ☒ 2. 9 p v b X e 4
  - ☒ 3. 9 6 v b X 6 4
  - ☒ 4. d p v P X e 4

Question ID : 81616113840  
Status : Answered  
Chosen Option : 2

**Q.19** Select the number from among the given options that can replace the question mark (?) in the following series.

27, 30, 37, 50, ?, 98

- Ans
- ☒ 1. 82
  - ☒ 2. 62
  - ☒ 3. 69
  - ☒ 4. 78

Question ID : 81616114233  
Status : Answered  
Chosen Option : 3

**Q.20** Select the letter-cluster from among the given options that can replace the question mark (?) in the following series.

UTMD, QXIH, MBEL, IFAP, ?

- Ans
- ☒ 1. EKXT
  - ☒ 2. DJVT
  - ☒ 3. EJWT
  - ☒ 4. EKWU

Question ID : 81616113818  
Status : Answered  
Chosen Option : 3

**Q.21** Select the option in which the numbers are related in the same way as are the numbers of the following set.

(7, 52, 346)

- Ans
- ☒ 1. (5, 25, 128)
  - ☒ 2. (4, 19, 70)
  - ☒ 3. (8, 67, 515)
  - ☒ 4. (6, 39, 217)

Question ID : 81616112621  
Status : Answered  
Chosen Option : 4

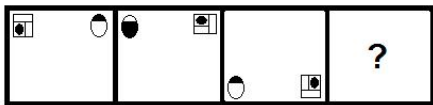
**Q.22** Select the option that is related to the third number in the same way as the second number is related to the first number and the sixth number is related to the fifth number.

13 : 4 :: 19 : ? :: 16 : 5

- Ans
- ☒ 1. 5
  - ☒ 2. 3
  - ☒ 3. 2
  - ☒ 4. 6

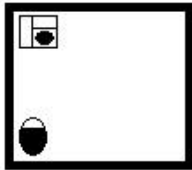
Question ID : 81616112820  
Status : Answered  
Chosen Option : 4

**Q.23** Select the figure from among the given options that can replace the question mark (?) in the following series.

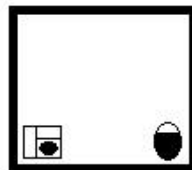


Ans

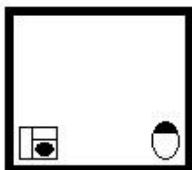
✗ 1.



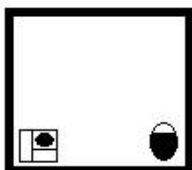
✓ 2.



✗ 3.



✗ 4.



Question ID : 81616114240

Status : Answered

Chosen Option : 2



**Q.24** Select the option in which the given figure is embedded (rotation is NOT allowed).



**Ans**

✗ 1.



✓ 2.



✗ 3.



✗ 4.



Question ID : 81616113839

Status : **Answered**

Chosen Option : 3

**Q.25** Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statements.

**Statements:**

1. All rugs are blankets.
2. All blankets are pillows.
3. Some blankets are frames.

**Conclusions:**

- I. All pillows are rugs.
- II. Some pillows are rugs.
- III. All rugs are frames

**Ans**

✓ 1. Only conclusion II follows

✗ 2. Either conclusion I or III follows

✗ 3. Both conclusions I and III follow

✗ 4. Neither conclusion II nor III follows

Question ID : 81616112818

Status : **Answered**

Chosen Option : 1

Section : **General Awareness**

**Q.1 Which of the following Buddhist sites is located in Uttar Pradesh?**

- Ans** ☒ 1. Amaravati  
☒ 2. Sanchi  
☒ 3. Karle  
☒ 4. Sarnath

Question ID : **81616113857**  
Status : **Answered**  
Chosen Option : **3**

**Q.2 Which of the following Articles of the Constitution of India provides power to the President for promulgating ordinances?**

- Ans** ☒ 1. Article 123  
☒ 2. Article 77  
☒ 3. Article 111  
☒ 4. Article 143

Question ID : **81616113862**  
Status : **Answered**  
Chosen Option : **4**

**Q.3 The Ramon Magsaysay Award was established in the year \_\_\_\_.**

- Ans** ☒ 1. 1982  
☒ 2. 1957  
☒ 3. 1962  
☒ 4. 1965

Question ID : **81616113860**  
Status : **Not Answered**  
Chosen Option : **--**

**Q.4 Which State Assembly passed the resolution on Sarna Code in November 2020?**

- Ans** ☒ 1. Jharkhand  
☒ 2. Madhya Pradesh  
☒ 3. Bihar  
☒ 4. Chhattisgarh

Question ID : **81616114271**  
Status : **Answered**  
Chosen Option : **4**

**Q.5 According to National Education Policy 2020, vocational education will start from \_\_\_\_ with internships.**

- Ans** ☒ 1. Class VII  
☒ 2. Class VI  
☒ 3. Class V  
☒ 4. Class VIII

Question ID : **81616114269**  
Status : **Answered**  
Chosen Option : **3**

**Q.6** The concept of 'Reservation of seats for Scheduled Castes and Scheduled Tribes in the House of the People' is highlighted in Article \_\_\_\_\_ of the Constitution of India.

**Ans** ✓ 1. 330

✗ 2. 345

✗ 3. 361

✗ 4. 326

Question ID : 81616112649

Status : **Answered**

Chosen Option : 1

**Q.7** In cricket which of the following fielding positions is behind the batsman?

**Ans** ✗ 1. Mid off

✗ 2. Cover

✗ 3. Mid-wicket

✓ 4. First slip

Question ID : 81616114267

Status : **Answered**

Chosen Option : 4

**Q.8** Where is the famous pilgrim spot of Sikhs, Sri Harmandir Sahib located?

**Ans** ✗ 1. Jalandhar

✓ 2. Amritsar

✗ 3. Patna

✗ 4. Manali

Question ID : 81616112833

Status : **Answered**

Chosen Option : 2

**Q.9** Which of the following is a tributary of the river Brahmaputra that flows through Bhutan?

**Ans** ✗ 1. Sittaung River

✗ 2. Chindwin River

✓ 3. Wang Chhu River

✗ 4. Ayeyarwady River

Question ID : 81616112640

Status : **Not Attempted and  
Marked For Review**

Chosen Option : --

**Q.10 Who among the following won the 10th National Ice Hockey Championship trophy in Gulmarg in January 2021?**

- Ans**
- ☒ 1. National Highway Authority of India (NHAI)
  - ☒ 2. Central Industrial Security Force (CISF)
  - ☒ 3. Indo Tibetan Border Police (ITBP)
  - ☒ 4. Central Reserve Police Force (CRPF)

Question ID : **81616112854**  
Status : **Answered**  
Chosen Option : **3**

**Q.11 The Sun Temple of Odisha was built in the 12th Century AD by which of the following emperors?**

- Ans**
- ☒ 1. Dharmapala
  - ☒ 2. Narasimha Deva I
  - ☒ 3. Kharavela
  - ☒ 4. Vijaya Sena

Question ID : **81616112848**  
Status : **Answered**  
Chosen Option : **2**

**Q.12 Lymph is a light clear fluid made up of white blood cells that attack harmful \_\_\_\_\_ in the blood.**

- Ans**
- ☒ 1. bacteria
  - ☒ 2. viruses
  - ☒ 3. fungi
  - ☒ 4. protozoa

Question ID : **81616112840**  
Status : **Answered**  
Chosen Option : **1**

**Q.13 Chandernagore (Chandannagar) was a \_\_\_\_\_ colony captured by the British Navy on 23 March 1757.**

- Ans**
- ☒ 1. Danish
  - ☒ 2. Dutch
  - ☒ 3. Portuguese
  - ☒ 4. French

Question ID : **81616112644**  
Status : **Answered**  
Chosen Option : **3**

**Q.14** In 2020, the United Nations passed a resolution to remove cannabis and cannabis resin from the category of 'most dangerous substances'. Which of the following countries was absent from the voting?

- Ans ☒ 1. India  
☒ 2. Ukraine  
☒ 3. The US  
☒ 4. Russia

Question ID : **81616113866**  
Status : **Answered**  
Chosen Option : **1**

**Q.15** The ICTP Ramanujan Prize is awarded annually for excellence in \_\_\_\_\_.

- Ans ☒ 1. Physics  
☒ 2. Biology  
☒ 3. Mathematics  
☒ 4. Chemistry

Question ID : **81616114263**  
Status : **Answered**  
Chosen Option : **1**

**Q.16** Viscose fibre is obtained from \_\_\_\_\_.

- Ans ☒ 1. coal  
☒ 2. cellulose  
☒ 3. petrochemicals  
☒ 4. oil

Question ID : **81616112837**  
Status : **Answered**  
Chosen Option : **2**

**Q.17** Who among the following economists coined the terminology 'Hindu Rate of Growth'?

- Ans ☒ 1. Bimal Jalan  
☒ 2. Raj Krishna  
☒ 3. Vijay Kelkar  
☒ 4. Amiya Kumar Bagchi

Question ID : **81616112634**  
Status : **Answered**  
Chosen Option : **3**

**Q.18** Carbon and energy requirements of an autotrophic organism are fulfilled by \_\_\_\_\_.

- Ans ☒ 1. glycogenation  
☒ 2. photosynthesis  
☒ 3. locomotion  
☒ 4. respiration

Question ID : **81616114252**  
Status : **Answered**  
Chosen Option : **2**

**Q.19** For a wave, wavelength divided by the time period is equal to:

- Ans**
- ☒ 1. phase difference
  - ☒ 2. wave velocity
  - ☐ 3. frequency
  - ☐ 4. amplitude

Question ID : **81616113851**  
Status : **Answered**  
Chosen Option : **3**

**Q.20** How many arteries are there in an umbilical cord?

- Ans**
- ☐ 1. One
  - ☒ 2. Two
  - ☐ 3. Three
  - ☐ 4. Four

Question ID : **81616112637**  
Status : **Not Answered**  
Chosen Option : **--**

**Q.21** 'Aaluyattu' is a folk-dance form from the state of \_\_\_\_\_.

- Ans**
- ☒ 1. Nagaland
  - ☐ 2. Kerala
  - ☐ 3. Goa
  - ☐ 4. Haryana

Question ID : **81616112632**  
Status : **Answered**  
Chosen Option : **2**

**Q.22** In which of the following places is a steel plant under SAIL located?

- Ans**
- ☐ 1. Korba
  - ☐ 2. Raigarh
  - ☒ 3. Bhilai
  - ☐ 4. Bilaspur

Question ID : **81616113845**  
Status : **Not Answered**  
Chosen Option : **--**

**Q.23** \_\_\_\_\_ National Park is in Ladakh.

- Ans**
- ☐ 1. Namdapha
  - ☐ 2. Gir
  - ☒ 3. Hemis
  - ☐ 4. Manas

Question ID : **81616113853**  
Status : **Answered**  
Chosen Option : **3**

**Q.24** Which of the following is NOT an outcome of endogenic forces?

- Ans**
- ☐ 1. Earthquakes
  - ☐ 2. Landslides
  - ☐ 3. Volcanic eruptions
  - ☒ 4. Sea waves

Question ID : 81616114258

Status : Answered

Chosen Option : 2

**Q.25** In which of the following years was the All-India Harijan Sevak Sangh founded?

- Ans**
- ☐ 1. 1919
  - ☐ 2. 1942
  - ☒ 3. 1932
  - ☐ 4. 1928

Question ID : 81616112845

Status : Answered

Chosen Option : 3

Section : **Quantitative Aptitude**

**Q.1** A man and a woman, working together can do a work in 66 days. The ratio of their working efficiencies is 3 : 2. In how many days 6 men and 2 women working together can do the same work?

- Ans**
- ☒ 1. 15
  - ☐ 2. 14
  - ☐ 3. 18
  - ☐ 4. 12

Question ID : 81616112664

Status : Answered

Chosen Option : 1

**Q.2** The value of  $90 \div 20 \text{ of } 6 \times [11 \div 4 \text{ of } \{3 \times 2 - (3 - 8)\}] \div (9 \div 3 \times 2)$  is:

- Ans**
- ☐ 1.  $\frac{1}{36}$
  - ☐ 2.  $\frac{9}{8}$
  - ☒ 3.  $\frac{1}{32}$
  - ☐ 4.  $\frac{3}{8}$

Question ID : 81616114273

Status : Answered

Chosen Option : 3

**Q.3** If  $2x^2 - 8x - 1 = 0$ , then what is the value of  $8x^3 - \frac{1}{x^2}$ ?

- Ans** ☒ 1. 560  
☐ 2. 540  
☐ 3. 464  
☐ 4. 524

Question ID : **81616114283**  
Status : **Answered**  
Chosen Option : **1**

**Q.4** A, B and C divide a certain sum of money among themselves. The average of the amounts with them is ₹4520. Share of A is  $10\frac{2}{3}\%$  more than share of B and  $33\frac{1}{3}\%$  less than share of C. What is the share of B (in ₹)?

- Ans** ☐ 1. 5976  
☒ 2. 3600  
☐ 3. 3500  
☐ 4. 3984

Question ID : **81616112660**  
Status : **Not Answered**  
Chosen Option : --

**Q.5** Find the greatest value of b so that  $30a68b$  ( $a > b$ ) is divisible by 11.

- Ans** ☐ 1. 6  
☐ 2. 4  
☒ 3. 3  
☐ 4. 9

Question ID : **81616112656**  
Status : **Not Attempted and Marked For Review**  
Chosen Option : --

**Q.6** A circle touches all the four sides of a quadrilateral  $ABCD$  whose sides are  $AB = 8.4\text{ cm}$ ,  $BC = 9.8\text{ cm}$  and  $CD = 5.6\text{ cm}$ . The length of side  $AD$ , in  $\text{cm}$ , is:

- Ans** ☐ 1. 2.8  
☒ 2. 4.2  
☐ 3. 3.8  
☐ 4. 4.9

Question ID : **81616113882**  
Status : **Answered**  
Chosen Option : **2**



Q.7

If  $x^4 + \frac{1}{x^4} = 727$ ,  $x > 1$ , then what is the value of  $\left(x - \frac{1}{x}\right)$ ?

- Ans
- ☐ 1. 6
  - ☐ 2. -5
  - ☐ 3. -6
  - ☒ 4. 5

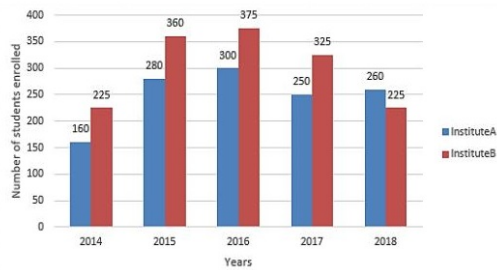
Question ID : 81616112669

Status : Answered

Chosen Option : 4

Q.8

Bar graph shows the number of students enrolled for a vocational course in institutes A and B during 5 years from 2014 to 2018.



In which year the number of students enrolled in institute A is  $x\%$  less, where  $25 < x < 30$ , than the number of students enrolled in institute B in the same year?

- Ans
- ☐ 1. 2016
  - ☐ 2. 2015
  - ☐ 3. 2017
  - ☒ 4. 2014

Question ID : 81616113488

Status : Not Answered

Chosen Option : --

Q.9

Atul purchased Bread costing ₹20 and gave a 100 rupee note to the shopkeeper. The shopkeeper gave the balance money in coins of denomination ₹2, ₹5 and ₹10. If these coins are in the ratio 5 : 4 : 1, then how many ₹5 coins did the shopkeeper give?

- Ans
- ☐ 1. 6
  - ☒ 2. 8
  - ☐ 3. 5
  - ☐ 4. 4

Question ID : 81616112864

Status : Answered

Chosen Option : 2

**Q.10** The area of a circular park is  $12474 \text{ m}^2$ . There is  $3.5 \text{ m}$  wide path around the park. What is the area (in  $\text{m}^2$ ) of the path? (Take  $\pi = \frac{22}{7}$ )

- Ans**
- ☒ 1. 1435.5
  - ☒ 2. 1440.5
  - ☒ 3. 1424.5
  - ☒ 4. 1380.5

Question ID : 81616113878

Status : **Not Attempted and Marked For Review**

Chosen Option : --

**Q.11** A shopkeeper marks his goods 30% higher than the cost price and allows a discount of 10% on the marked price. In order to earn 6.5% more profit, what discount percent should he allow on the marked price?

- Ans**
- ☒ 1. 4
  - ☒ 2. 5.5
  - ☒ 3. 6
  - ☒ 4. 5

Question ID : 81616112861

Status : **Answered**

Chosen Option : 2

**Q.12** Two equal sums were lent on simple interest at 6% and 10% per annum respectively. The first sum was recovered two years later than the second sum and the amount in each case was ₹1105. What was the sum (in ₹) lent in each scheme?

- Ans**
- ☒ 1. 900
  - ☒ 2. 850
  - ☒ 3. 891
  - ☒ 4. 936

Question ID : 81616112663

Status : **Answered**

Chosen Option : 2

**Q.13** A trader bought 640 kg of rice. He sold a part of rice at 20% profit and the rest at 5% loss. He earned a profit of 15% in the entire transaction. What is the quantity (in kg) of rice that he sold at 5% loss?

- Ans**
- ☒ 1. 132
  - ☒ 2. 128
  - ☒ 3. 256
  - ☒ 4. 154

Question ID : 81616114277

Status : **Answered**

Chosen Option : 2

**Q.14** The average of eleven numbers is 56. The average of first three numbers is 52 and that of next five numbers is 60. The 9th and 10th number are 3 and 1 more than the 11th number respectively. What is the average of 9th and 11th numbers?

- Ans**
- ☒ 1. 52
  - ☒ 2. 54
  - ☒ 3. 53.5
  - ☒ 4. 52.5

Question ID : 81616113870  
Status : Answered  
Chosen Option : 3

**Q.15** If  $x - \frac{1}{x} = 1$ , then what is the value of  $x^8 + \frac{1}{x^8}$ ?

- Ans**
- ☒ 1. -1
  - ☒ 2. 3
  - ☒ 3. 119
  - ☒ 4. 47

Question ID : 81616112870  
Status : Answered  
Chosen Option : 1

**Q.16** A train is to cover 370 km at a uniform speed. After running 100 km, the train could run at a speed 5 km/h less than its normal speed due to some technical fault. The train got delayed by 36 minutes. What is the normal speed of the train, in km/h?

- Ans**
- ☒ 1. 50
  - ☒ 2. 40
  - ☒ 3. 45
  - ☒ 4. 48

Question ID : 81616112867  
Status : Not Answered  
Chosen Option : --

**Q.17**  $\triangle ABC \sim \triangle DEF$  and the area of  $\triangle ABC$  is  $13.5 \text{ cm}^2$  and the area of  $\triangle DEF$  is  $24 \text{ cm}^2$ . If  $BC = 3.15 \text{ cm}$ , then the length (in cm) of  $EF$  is:

- Ans**
- ☒ 1. 5.1
  - ☒ 2. 4.2
  - ☒ 3. 4.8
  - ☒ 4. 3.9

Question ID : 81616114288  
Status : Answered  
Chosen Option : 2

**Q.18** If  $3 \tan \theta = 2\sqrt{3} \sin \theta$ ,  $0^\circ < \theta < 90^\circ$ , then find the value of  $2 \sin^2 2\theta - 3 \cos^2 3\theta$ .

**Ans**

✓ 1.  $\frac{3}{2}$

✗ 2.  $-\frac{3}{2}$

✗ 3.  $\frac{1}{2}$

✗ 4. 1

Question ID : 81616112674

Status : **Not Attempted and Marked For Review**

Chosen Option : --

**Q.19** In  $\triangle ABC$ ,  $\angle C = 90^\circ$  and  $Q$  is the midpoint of  $BC$ . If  $AB = 10 \text{ cm}$  and  $AC = 2\sqrt{10} \text{ cm}$ , then the length of  $AQ$  is :

**Ans**

✗ 1.  $5\sqrt{2} \text{ cm}$

✗ 2.  $3\sqrt{5} \text{ cm}$

✗ 3.  $5\sqrt{3} \text{ cm}$

✓ 4.  $\sqrt{55} \text{ cm}$

Question ID : 81616113885

Status : **Answered**

Chosen Option : 4

**Q.20** The radii of two concentric circles are 12 cm and 13 cm.  $AB$  is a diameter of the bigger circle.  $BD$  is a tangent to a smaller circle touching it at  $D$ . Find the length (in cm) of  $AD$ ? (correct to one decimal place)

**Ans**

✗ 1. 17.6

✓ 2. 24.5

✗ 3. 25.5

✗ 4. 23.5

Question ID : 81616112671

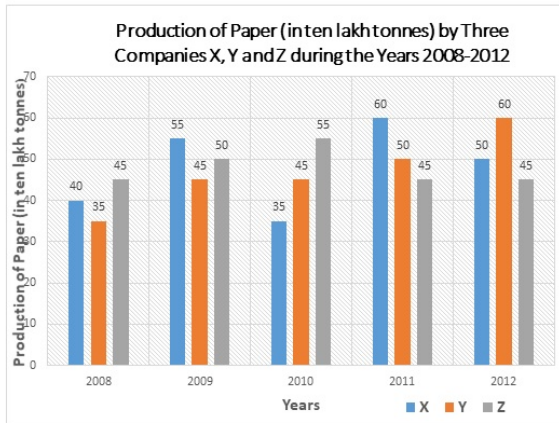
Status : **Not Answered**

Chosen Option : --

**Q.21** Study the given bar graph and answer the question.

The bar graph given below represents the data of the Production of Paper (in ten lakh tonnes) by three different companies X, Y and Z during the years 2008 to 2012. The x-axis shows the Years and the y-axis represents the Production of Paper (in ten lakh tonnes).

(Note: The data shown below is only for mathematical exercise. They do not represent the actual figures.)



Which company/companies had the maximum average production for the given five years period?

- Ans**
- ☒ 1. Y and Z both
  - ☒ 2. Y
  - ☒ 3. X and Z both
  - ☒ 4. X

Question ID : 81616112576

Status : Answered

Chosen Option : 1

**Q.22** If  $3\sec\theta + 4\cos\theta - 4\sqrt{3} = 0$  where  $\theta$  is an acute angle then the value of  $\theta$  is:

- Ans**
- ☒ 1.  $20^\circ$
  - ☒ 2.  $60^\circ$
  - ☒ 3.  $45^\circ$
  - ☒ 4.  $30^\circ$

Question ID : 81616113079

Status : Answered

Chosen Option : 4

**Q.23** The value of

$$\frac{\tan(45^\circ - \alpha)}{\cot(45^\circ + \alpha)} - \frac{(\cos 19^\circ + \sin 71^\circ)(\sec 19^\circ + \operatorname{cosec} 71^\circ)}{\tan 12^\circ \tan 24^\circ \tan 66^\circ \tan 78^\circ} \text{ is:}$$

**Ans**  1. -2

 2. -3

 3. 0

 4. 2

Question ID : **81616114292**

Status : **Answered**


Chosen Option : **2**

**Q.24** The following table shows day-wise number of seats occupied of different classes in a train. Numbers in bracket represent the total seats available in a particular class.


Day	2nd Class Non- AC (900)	1st Class Non- AC (500)	AC III Tier (500)	AC II Tier (250)	AC 1st Class (150)
Monday	850	460	480	240	145
Tuesday	840	400	450	230	120
Wednesday	830	390	480	220	130
Thursday	790	480	490	250	125
Friday	840	470	500	210	130

How many seats remained vacant taking all the days together in non-AC classes?

**Ans**  1. 600

 2. 650

 3. 715

 4. 585

Question ID : **81616113486**

Status : **Answered**

Chosen Option : **3**

**Q.25** The data given in the table shows the number of boys and girls enrolled in three different streams in a school over 5 years.

years	Arts		Science		Commerce	
	Boys	Girls	Boys	Girls	Boys	Girls
2012	48	36	40	35	35	45
2014	42	43	42	32	32	42
2016	45	42	38	30	36	38
2018	39	46	41	23	28	34
2020	36	43	39	30	39	41

The number of boys in Science stream in the years 2012 and 2016 taken together is what percent of the number of girls for all the years in the Commerce stream?

- Ans**
- ☒ 1. 35
  - ☒ 2. 39
  - ☒ 3. 45.5
  - ☒ 4. 32.5

Question ID : **81616112578**  
 Status : **Answered**  
 Chosen Option : **2**

Section : **English Comprehension**

**Q.1** Select the option that expresses the given sentence in indirect speech.

**“Read the instructions before you start making the dish,” Deepa's mother said to her.**

- Ans**
- ☒ 1. Deepa's mother told to her to read the instructions before you start making the dish.
  - ☒ 2. Deepa's mother told her to read the instructions before you had made the dish.
  - ☒ 3. Deepa's mother said her to read the instructions before she start making the dish.
  - ☒ 4. Deepa's mother told her to read the instructions before she started making the dish.

Question ID : **81616113896**  
 Status : **Answered**  
 Chosen Option : **4**

**Q.2** The following sentence has been divided into parts. One of them contains an error. Select the part that contains the error from the given options.

**The Dussehra celebrations / in Mysore / this year / are grandest than / in any other part / of the state.**

- Ans**
- ☒ 1. any other part
  - ☒ 2. in Mysore
  - ☒ 3. are grandest than
  - ☒ 4. The Dussehra celebrations

Question ID : **81616112883**  
 Status : **Answered**  
 Chosen Option : **1**

**Q.3** Select the most appropriate meaning of the given idiom.

**Want to curl up and die**

- Ans**
- ☒ 1. Too tired from physical labour
  - ☒ 2. Want to die comfortably
  - ☒ 3. Unable to sleep well
  - ☒ 4. Feel terribly ashamed and sorry

Question ID : **81616112902**

Status : **Answered**

Chosen Option : **4**

**Q.4** Select the most appropriate option to fill in the blank.

The advanced nations face no population problem since they were already settling down to zero growth \_\_\_\_\_ in population.

- Ans**
- ☒ 1. degree
  - ☒ 2. scale
  - ☒ 3. rate
  - ☒ 4. frequency

Question ID : **81616113918**

Status : **Answered**

Chosen Option : **3**

**Q.5** Select the most appropriate option to substitute the underlined segment in the given sentence. If no substitution is required, select 'No substitution'.

Many of the apples was rotten.

- Ans**
- ☒ 1. is rotten
  - ☒ 2. No substitution
  - ☒ 3. were rotten
  - ☒ 4. was being rotten

Question ID : **81616112685**

Status : **Answered**

Chosen Option : **3**

**Q.6** Select the most appropriate synonym of the given word.

**lota**

- Ans**
- ☒ 1. Bit
  - ☒ 2. Lot
  - ☒ 3. Box
  - ☒ 4. Bag

Question ID : **81616113907**

Status : **Marked For Review**

Chosen Option : **1**



**Q.7** The following sentence has been divided into parts. One of them contains an error. Select the part that contains the error from the given options.

Lack of required / vitamins and minerals / lead against / several complications / in the human body.

- Ans**
- ☒ 1. several complications
  - ☒ 2. Lack of required
  - ☒ 3. in the human body
  - ☒ 4. lead against

Question ID : 81616112682

Status : Answered

Chosen Option : 4

**Q.8** Select the most appropriate option to substitute the underlined segment in the given sentence. If no substitution is required, select 'No substitution'.

Although the children studied hard, but they could not understand the topic without the help of the teacher.

- Ans**
- ☒ 1. Although the children had study hard, but they
  - ☒ 2. Although the children studied hard, they
  - ☒ 3. No substitution
  - ☒ 4. Although the children have studied hard, but they

Question ID : 81616113898

Status : Answered

Chosen Option : 2

**Q.9** Select the option that can be used as a one-word substitute for the given group of words.

One who does not take any alcoholic drink

- Ans**
- ☒ 1. Astrologer
  - ☒ 2. Perfectionist
  - ☒ 3. Vegetarian
  - ☒ 4. Teetotaler

Question ID : 81616112702

Status : Answered

Chosen Option : 4

**Q.10** Select the most appropriate ANTONYM of the given word.

Pompous

- Ans**
- ☒ 1. Humble
  - ☒ 2. Flaunting
  - ☒ 3. Showy
  - ☒ 4. Boastful

Question ID : 81616112900

Status : Answered

Chosen Option : 1

**Q.11** Select the most appropriate synonym of the given word.

Yield (n)

- Ans** ☒ 1. Plantation  
☒ 2. Garden  
☒ 3. Orchard  
☒ 4. Harvest

Question ID : **81616113908**

Status : **Answered**

Chosen Option : **1**

**Q.12** Select the most appropriate option to fill in the blank.

The door \_\_\_\_\_ in the strong wind.

- Ans** ☒ 1. slapped  
☒ 2. sizzled  
☒ 3. hooted  
☒ 4. slammed

Question ID : **81616112705**

Status : **Answered**

Chosen Option : **4**

**Q.13** Select the option that can be used as a one-word substitute for the given group of words.

A person who is trained to travel in a spacecraft

- Ans** ☒ 1. Choreographer  
☒ 2. Chauffeur  
☒ 3. Astronaut  
☒ 4. Anchor

Question ID : **81616112701**

Status : **Answered**

Chosen Option : **3**

**Q.14** Select the INCORRECTLY spelt word.

- Ans** ☒ 1. Friend  
☒ 2. Neice  
☒ 3. Scenic  
☒ 4. Fiery

Question ID : **81616114319**

Status : **Answered**

Chosen Option : **3**

**Q.15** Sentences of a paragraph are given below in jumbled order. Arrange the sentences in the right order to form a meaningful and coherent paragraph.

- A. When he reached his town, he went to his house and knocked at the door.
- B. A man went away from his home.
- C. Disappointed, he decided to take it himself.
- D. One day he wrote a letter to his family, but could not find any one to take the letter to his town.

Ans ☒ 1. ABCD  
☒ 2. CBAD  
☒ 3. BDCA  
☒ 4. DACB

Question ID : 81616112896  
Status : Answered  
Chosen Option : 3

**Q.16** Select the most appropriate ANTONYM of the given word.

**Widespread**

Ans ☒ 1. General  
☒ 2. Limited  
☒ 3. Overall  
☒ 4. Famous

Question ID : 81616114313  
Status : Answered  
Chosen Option : 2

**Q.17** Select the most appropriate meaning of the given idiom.

**Be at a loss for words**

Ans ☒ 1. Not know what to say  
☒ 2. Not aware of the language  
☒ 3. Habituated to using difficult words  
☒ 4. Lost the urge to speak

Question ID : 81616112901  
Status : Answered  
Chosen Option : 1

**Q.18** Select the INCORRECTLY spelt word.

Ans ☒ 1. Insolence  
☒ 2. Idleness  
☒ 3. Inershia  
☒ 4. Indolence

Question ID : 81616114320  
Status : Answered  
Chosen Option : 3

**Q.19** Select the option that expresses the given sentence in passive voice.

Close all the windows.

- Ans ☒ 1. Will you close all the windows?  
☒ 2. Can you close all the windows?  
☒ 3. All the windows be closed.  
☒ 4. Let all the windows be closed.

Question ID : 81616112683

Status : Answered

Chosen Option : 4

**Q.20** Sentences of a paragraph are given below in jumbled order. Arrange the sentences in the right order to form a meaningful and coherent paragraph.

- A. At length the olive tree's branches broke with the snow's weight, at once despoiling it of its beauty and killing the tree.  
B. A shower of snow fell upon them and, finding the olive full of foliage, it settled upon its branches.  
C. Finding the fig tree without leaves, the snow fell through the branches to the ground and did not injure it at all.  
D. The olive tree ridiculed the fig tree because, while she was green all the year round, the fig tree changed its leaves with the seasons.

- Ans ☒ 1. ABCD  
☒ 2. DBAC  
☒ 3. ACBD  
☒ 4. DACB

Question ID : 81616114309

Status : Answered

Chosen Option : 1

**Comprehension:**

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.

Man-made fibre, is fibre whose chemical composition, structure, and properties are significantly modified during the manufacturing process. Man-made fibres (1)\_\_\_\_\_ spun and woven into a large (2)\_\_\_\_\_ of consumer and industrial products, (3)\_\_\_\_\_ garments such as shirts, scarves, and hosiery; home furnishings (4)\_\_\_\_\_ as upholstery, carpets, and drapes; and (5)\_\_\_\_\_ parts such as tire cord, flame-proof linings, and drive belts.

**SubQuestion No : 21**

**Q.21** Select the most appropriate option to fill in blank 1.

- Ans ☒ 1. be  
☒ 2. will be  
☒ 3. are  
☒ 4. is

Question ID : 81616114304

Status : Answered

Chosen Option : 3

**Comprehension:**

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.

Man-made fibre, is fibre whose chemical composition, structure, and properties are significantly modified during the manufacturing process. Man-made fibres (1)\_\_\_\_\_ spun and woven into a large (2)\_\_\_\_\_ of consumer and industrial products, (3)\_\_\_\_\_ garments such as shirts, scarves, and hosiery; home furnishings (4)\_\_\_\_\_ as upholstery, carpets, and drapes; and (5)\_\_\_\_\_ parts such as tire cord, flame-proof linings, and drive belts.

**SubQuestion No : 22**

**Q.22** Select the most appropriate option to fill in blank 2.

- Ans** ☒ 1. figure  
☒ 2. total  
☒ 3. extent  
☒ 4. number

Question ID : **81616114305**

Status : **Answered**

Chosen Option : **4**

**Comprehension:**

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.

Man-made fibre, is fibre whose chemical composition, structure, and properties are significantly modified during the manufacturing process. Man-made fibres (1)\_\_\_\_\_ spun and woven into a large (2)\_\_\_\_\_ of consumer and industrial products, (3)\_\_\_\_\_ garments such as shirts, scarves, and hosiery; home furnishings (4)\_\_\_\_\_ as upholstery, carpets, and drapes; and (5)\_\_\_\_\_ parts such as tire cord, flame-proof linings, and drive belts.

**SubQuestion No : 23**

**Q.23** Select the most appropriate option to fill in blank 3.

- Ans** ☒ 1. showing  
☒ 2. counting  
☒ 3. wrapping  
☒ 4. including

Question ID : **81616114306**

Status : **Answered**

Chosen Option : **4**

**Comprehension:**

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.

Man-made fibre, is fibre whose chemical composition, structure, and properties are significantly modified during the manufacturing process. Man-made fibres (1)\_\_\_\_\_ spun and woven into a large (2)\_\_\_\_\_ of consumer and industrial products, (3)\_\_\_\_\_ garments such as shirts, scarves, and hosiery; home furnishings (4)\_\_\_\_\_ as upholstery, carpets, and drapes; and (5)\_\_\_\_\_ parts such as tire cord, flame-proof linings, and drive belts.

**SubQuestion No : 24**

**Q.24** Select the most appropriate option to fill in blank 4.

- Ans**   ☒ 1. more  
         ☒ 2. much  
         ☒ 3. such  
         ☒ 4. so

Question ID : **81616114307**

Status : **Answered**

Chosen Option : **3**

**Comprehension:**

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.

Man-made fibre, is fibre whose chemical composition, structure, and properties are significantly modified during the manufacturing process. Man-made fibres (1)\_\_\_\_\_ spun and woven into a large (2)\_\_\_\_\_ of consumer and industrial products, (3)\_\_\_\_\_ garments such as shirts, scarves, and hosiery; home furnishings (4)\_\_\_\_\_ as upholstery, carpets, and drapes; and (5)\_\_\_\_\_ parts such as tire cord, flame-proof linings, and drive belts.

**SubQuestion No : 25**

**Q.25** Select the most appropriate option to fill in blank 5.

- Ans**   ☒ 1. industrial  
         ☒ 2. industrialist  
         ☒ 3. industry  
         ☒ 4. industrialised

Question ID : **81616114308**

Status : **Answered**

Chosen Option : **1**