

## Combined Graduate level Examination 2023 Tier I

|                |                                                  |
|----------------|--------------------------------------------------|
| Roll Number    |                                                  |
| Candidate Name |                                                  |
| Venue Name     | Sri Balaji College Of Engineering And Technology |
| Exam Date      | 17/07/2023                                       |
| Exam Time      | 11:45 AM - 12:45 PM                              |
| Subject        | Combined Graduate Level Examination Tier I 2023  |

### Section : General Intelligence and Reasoning

Q.1 'A + B' means 'A is the sister of B'.  
'A - B' means 'A is the brother of B'.  
'A × B' means 'A is the father of B'.  
'A ÷ B' means 'A is the wife of B'.  
If  $A + B - C \div D \times E - F$ , then which of the following statements is NOT correct?

- Ans ☒ 1. C is the mother of F.  
☒ 2. E is the brother of B.  
☒ 3. A is the sister of the wife of D.  
☒ 4. A is the sister of C.

Question ID : 264330122049

Status : Answered

Chosen Option : 2

Q.2 Select the set in which the numbers are related in the same way as are the numbers of the following set.

(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into their constituent digits. E.g. 13 – Operations on 13 such as adding /subtracting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed)

(85 , 24 , 133)

(97 , 36 , 145)

- Ans ☒ 1. (79, 18, 127)  
☒ 2. (71, 15, 124)  
☒ 3. (86, 23, 135)  
☒ 4. (67, 12, 111)

Question ID : 26433079161

Status : Not Attempted and  
Marked For Review

Chosen Option : --

Q.3 In a certain code language, if 'PDU' is written as '40' and 'HXO' is written as '34', how will 'BMW' be written in the same code language?

- Ans ☒ 1. 28  
☒ 2. 36  
☒ 3. 43  
☒ 4. 34

Question ID : 264330126658

Status : Not Attempted and  
Marked For Review

Chosen Option : --

Q.4 Which two signs should be interchanged to make the given equation correct?  
 $625 \div 25 + 7 \times 318 - 112 = 381$

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

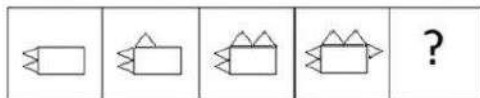
Question ID : 264330132497  
Status : Answered  
Chosen Option : 4

Q.5 Which number should replace the question mark (?) in the following number series?  
512, 508, 500, 496, ?, 484

- Ans
- ☒ 1. 480
  - ☒ 2. 484
  - ☒ 3. 488
  - ☒ 4. 490

Question ID : 26433090124  
Status : Answered  
Chosen Option : 3

Q.6 Select the figure that will replace the question mark (?) in the following series.



Ans

- ☒ 1.
- ☒ 2.
- ☒ 3.
- ☒ 4.

Question ID : 26433087143  
Status : Answered  
Chosen Option : 2

**Q.7** Select the option that is related to the fifth letter-cluster in the same way as the second letter-cluster is related to the first letter-cluster and the fourth letter-cluster is related to the third letter-cluster.

BULL: CDVWMNMN :: SHOT: TUIJPQUV :: TENS: ?

Ans ☒ 1. UVFGOPTU

☐ 2. OPTUUVFG

☐ 3. OPTUOPTU

☐ 4. UVFGUVFG

Question ID : 26433056280

Status : Answered

Chosen Option : 1

**Q.8** Select the option that represents the letters that, when sequentially placed from left to right in the blanks below, will complete the letter series.

C \_ \_ SRCNP \_ \_ \_ N \_ SRC \_ PS \_

Ans ☐ 1. PSNRCPNR

☐ 2. NPSRCPRN

☐ 3. NPSRPCRN

☒ 4. NPSRCPNR

Question ID : 26433090003

Status : Answered

Chosen Option : 4

**Q.9** Three of the following four letter-clusters are alike in a certain way and one is different. Pick the odd one out.

Ans ☐ 1. HMS

☐ 2. AFZ

☒ 3. KQP

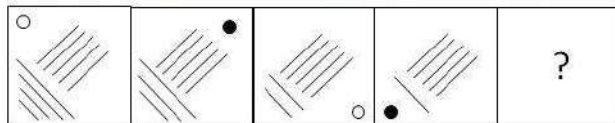
☐ 4. DIW

Question ID : 26433092563

Status : Marked For Review

Chosen Option : 4

**Q.10** Select the figure that will come in place of the question mark (?) in the following figure series.

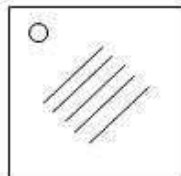


**Ans**

☒ 1.



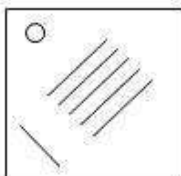
☒ 2.



☒ 3.



☒ 4.



Question ID : 26433056953

Status : Answered

Chosen Option : 2

**Q.11** Select the set in which the numbers are related in the same way as are the numbers of the following set.

(NOTE : Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding /subtracting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is NOT allowed)

(2, 114, 19)

(12, 216, 6)

**Ans** ☒ 1. (5, 20, 2)

☒ 2. (6, 144, 8)

☒ 3. (11, 176, 4)

☒ 4. (4, 128, 7)

Question ID : 264330130346

Status : Answered

Chosen Option : 2

**Q.12** If '+' means 'division', '-' means 'multiplication', '÷' means 'addition' and '×' means 'subtraction', then what is the value of the following expression?  
 $14 - 4 \div 133 + 7 \times 17$

Ans ☒ 1. 58

☐ 2. 69

☐ 3. 84

☐ 4. 64

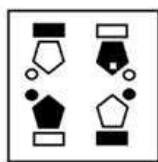
Question ID : 264330133150

Status : Answered

Chosen Option : 1

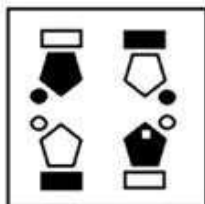
**Q.13** Which of the answer figures is the exact mirror image of the given problem figure when the mirror is held at the right side?

Problem figure:

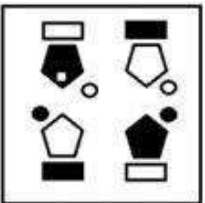


Ans

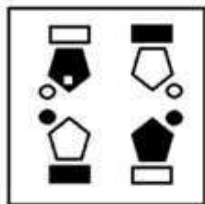
☐ 1.



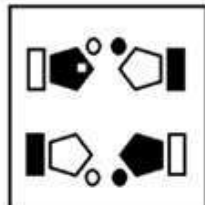
☐ 2.



☒ 3.



☐ 4.



Question ID : 26433067401

Status : Answered

Chosen Option : 3

**Q.14** Study the given pattern carefully and select the number that can replace the question mark (?) in it.

(6, 2, 34)

(1, 5, 13)

(9, 1, ?)

(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding/subtracting/multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed)

Ans  1. 25

 2. 19

 3. 16

 4. 13

Question ID : 26433082467

Status : Not Attempted and  
Marked For Review

Chosen Option : --

**Q.15** Select the option that represents the correct order of the given words as they would appear in an English dictionary.

1. Salesman

2. Salvage

3. Salinity

4. Salary

5. Salmon

6. Salivate

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

 2. 4, 1, 3, 6, 5, 2

 3. 4, 1, 6, 3, 5, 2

 4. 1, 4, 3, 6, 2, 5

Question ID : 264330132177

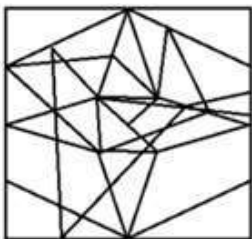
Status : Answered

Chosen Option : 2

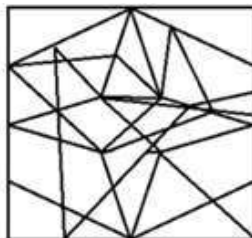
Q.16 Select the option figure in which the given figure is embedded. (Rotation is NOT allowed.)



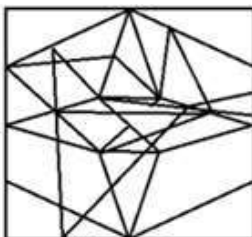
Ans



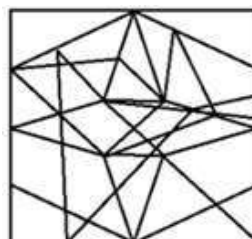
1.



2.



3.



4.

Question ID : 26433091609

Status : Answered

Chosen Option : 4

Q.17 Select the word-pair that best represents a similar relationship to the one expressed in the pair of words given below.  
Thermometer : Temperature

Ans

1. Taseometer : Acceleration

2. Micrometer : Speed

3. Voltmeter : Voltage

4. Galvanometer : Sound

Question ID : 264330103170

Status : Answered

Chosen Option : 3

**Q.18** Select the correct mirror image of the given figure when the mirror is placed at PQ as shown below.



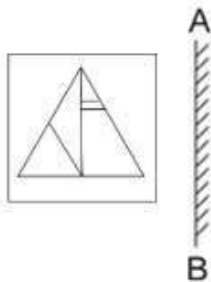
- Ans
- ☒ 1.
  - ☒ 2.
  - ☒ 3.
  - ☒ 4.

Question ID : 26433080769

Status : Answered

Chosen Option : 2

**Q.19** Select the correct mirror image of the given figure when the mirror is placed at AB.



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

Question ID : 264330106437

Status : Answered

Chosen Option : 2



**Q.20** In this question, three statements are given, followed by three conclusions numbered I, II and III. Assuming the statements to be true, even if they seem to be at variance with commonly known facts, decide which of the conclusions logically follows/follow from the statements.

**Statements:**

All clowns are books.  
Some books are heavy.  
Some heavy are trucks.

**Conclusions:**

I. Some books are clowns.  
II. All books are heavy.  
III. Some trucks are heavy.

- Ans** ☒ 1. Only conclusions I and II follow.  
☒ 2. Only conclusions I and III follow.  
☒ 3. Only conclusion I follows.  
☒ 4. None of the conclusions follows.

Question ID : 264330114232

Status : Answered

Chosen Option : 2

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

(NOTE : Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding /Subtracting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is NOT allowed)  
(4, 5, 83)  
(5, 5, 102)

- Ans** ☒ 1. (8, 9, 330)  
☒ 2. (3, 3, 11)  
☒ 3. (7, 6, 170)  
☒ 4. (8, 3, 123)

Question ID : 264330130209

Status : Not Answered

Chosen Option : --

**Q.22** Which of the following numbers will replace the question mark (?) in the given series?  
43, 52, 47, ?, 51, 60, 55

- Ans** ☒ 1. 56  
☒ 2. 53  
☒ 3. 49  
☒ 4. 57

Question ID : 264330103123

Status : Answered

Chosen Option : 1

**Q.23** Select the option that is related to the fifth letter-cluster in the same way as the second letter-cluster is related to the first letter-cluster and the fourth letter-cluster is related to the third letter-cluster.

RJN : OLU :: DHL : MJG :: VKC : ?

Ans ☒ 1. DMY

☐ 2. ENZ

☐ 3. YMD

☐ 4. ENY

Question ID : 264330102974

Status : Answered

Chosen Option : 1

**Q.24** In a certain code language, 'CHECK' is written as '6165622' and 'SURGE' is written as '382136145'. How will 'PRIEST' be written in that language?

Ans ☒ 1. 3236953840

☐ 2. 32369538

☐ 3. 161818101920

☐ 4. 1618101920

Question ID : 26433065600

Status : Answered

Chosen Option : 1

**Q.25** Which of the following terms will replace the question mark (?) in the given series?

MPKL, NRLN, OTMP, PVNR, ?

Ans ☒ 1. QXOT

☐ 2. QXPT

☐ 3. QYPT

☐ 4. QXPU

Question ID : 26433070360

Status : Answered

Chosen Option : 1

Section : General Awareness

**Q.1** President of India, Droupadi Murmu presented the \_\_\_\_\_ of the Digital India Awards on 7th January 2023 in New Delhi.

Ans ☐ 1. 8th edition

☐ 2. 5th edition

☒ 3. 7th edition

☐ 4. 6th edition

Question ID : 264330132586

Status : Not Answered

Chosen Option : --

**Q.2 In January 2022, who was named for the Rachael Heyhoe Flint Trophy for ICC Women's Cricketer of the Year?**

- Ans
- ☒ 1. Mithali Raj
  - ☒ 2. Elyse Perry
  - ☒ 3. Lizelle Lee
  - ☒ 4. Smriti Mandhana

Question ID : 26433092465  
Status : Answered  
Chosen Option : 2

**Q.3 The chemical formula of propene is:**

- Ans
- ☒ 1.  $C_2H_4$
  - ☒ 2.  $C_3H_4$
  - ☒ 3.  $C_3H_6$
  - ☒ 4.  $C_2H_2$

Question ID : 264330109887  
Status : Answered  
Chosen Option : 3

**Q.4 Which of the following is the closest wild relative of domestic cattle protected in some of the famous national parks of India like Nagarhole and Bandipur?**

- Ans
- ☒ 1. Red angus
  - ☒ 2. Asiatic buffalo
  - ☒ 3. Nilgai
  - ☒ 4. Gaur

Question ID : 264330111337  
Status : Not Answered  
Chosen Option : --

**Q.5 An annual statement of the estimated receipts and expenditure of the government over the fiscal year is known as \_\_\_\_\_.**

- Ans
- ☒ 1. Income sheet
  - ☒ 2. Plan
  - ☒ 3. Account
  - ☒ 4. Budget

Question ID : 264330110148  
Status : Answered  
Chosen Option : 4

**Q.6** What is the name of the scheme launched to fund infrastructure and social development projects in the Northeast for a period of four years from 2022-23 to 2025-26?

- Ans
- ☒ 1. PM- NERLP
  - ☒ 2. PM-DRUV
  - ☒ 3. PM-FME
  - ☒ 4. PM-DevINE

Question ID : 264330111305  
Status : Answered  
Chosen Option : 4

**Q.7** Who was hailed as a resident dancer of Tirumala Tirupati Devasthanam for her unique contribution to the promotion of classical dance forms?

- Ans
- ☒ 1. Uma Sharma
  - ☒ 2. Rukmini Devi
  - ☒ 3. Yamini Krishnamurthy
  - ☒ 4. Ragini Devi

Question ID : 26433064255  
Status : Not Answered  
Chosen Option : --

**Q.8** In February 2021, through which of the following cases did the Supreme court rule that in the cases when the Juvenile offender is under 18 years and above 16 years, he/she should be remitted to jurisdictional Juvenile Justice Board?

- Ans
- ☒ 1. Rahul Sharma v. National Insurance Company Ltd
  - ☒ 2. Satbir Singh v. State of Haryana
  - ☒ 3. Laxmibai Chandaragi v. The State of Karnataka
  - ☒ 4. Devilal v. State of Madhya Pradesh

Question ID : 26433092451  
Status : Not Answered  
Chosen Option : --

**Q.9** Which part of the Constitution of India contains the provisions of Union Executive?

- Ans
- ☒ 1. Part V
  - ☒ 2. Part III
  - ☒ 3. Part IV
  - ☒ 4. Part VI

Question ID : 264330110814  
Status : Answered  
Chosen Option : 1

**Q.10 Which of the following countries won the highest number of gold medals in the Tokyo Paralympic 2020?**

- Ans ☒ 1. Australia  
☒ 2. India  
☒ 3. China  
☒ 4. USA

Question ID : 264330130614  
Status : Answered  
Chosen Option : 3

**Q.11 Which of the following countries has hosted the three Asian Games?**

- Ans ☒ 1. South Korea  
☒ 2. Philippines  
☒ 3. Japan  
☒ 4. India

Question ID : 26433054693  
Status : Answered  
Chosen Option : 1

**Q.12 Who led the English army in the Battle of Buxar?**

- Ans ☒ 1. Lord Clive  
☒ 2. William Henry Sleeman  
☒ 3. Hector Munro  
☒ 4. Charles Eyrecoot

Question ID : 264330110204  
Status : Answered  
Chosen Option : 3

**Q.13 Which of the following amendments to the Indian Constitution made the Right to Property a Legal Right in place of a Fundamental Right?**

- Ans ☒ 1. 40th  
☒ 2. 48th  
☒ 3. 44th  
☒ 4. 45th

Question ID : 264330113387  
Status : Answered  
Chosen Option : 3

**Q.14 Changai dance is associated with which Indian state?**

- Ans ☒ 1. Madhya Pradesh  
☒ 2. Maharashtra  
☒ 3. Nagaland  
☒ 4. Jharkhand

Question ID : 264330109594  
Status : Not Answered  
Chosen Option : --

**Q.15 Which is the national fruit of Bangladesh?**

- Ans ☒ 1. Pomegranate  
☒ 2. Mango  
☒ 3. Apple  
☒ 4. Jackfruit

Question ID : 264330144073  
Status : Not Answered  
Chosen Option : --

**Q.16 Which of the following chemicals is used as a preservative to slow browning and discolouration in foods and beverages during preparation, storage and distribution?**

- Ans ☒ 1. Nitrous oxide  
☒ 2. Phosgene  
☒ 3. Sulphites  
☒ 4. Chlorine

Question ID : 264330110098  
Status : Answered  
Chosen Option : 2

**Q.17 Which of the following reforming societies believed Vedas to be the fountain of all the knowledge?**

- Ans ☒ 1. Theosophical Society  
☒ 2. Prarthana Samaj  
☒ 3. Arya Samaj  
☒ 4. Brahmo Samaj

Question ID : 264330134234  
Status : Answered  
Chosen Option : 3

**Q.18 Which of the following pairs of musicians and their instruments is INCORRECT?**

Ans ☒ 1. Bismillah Khan – Shehnai

☒ 2. Pt. Ram Narayan – Sarod

☒ 3. N Rajam – Violin

☒ 4. Pt. Ravi Shankar – Sitar

Question ID : 26433064778

Status : Not Answered

Chosen Option : --

**Q.19 The Second Five-Year Plan (1956-61) had a major goal of achieving which of the following targets?**

Ans ☒ 1. Self-reliant and self-generating economy

☒ 2. Growth with stability

☒ 3. Rapid industrialisation with focus on heavy industries

☒ 4. Growth with social justice

Question ID : 264330111570

Status : Not Answered

Chosen Option : --

**Q.20 Seismograph is used to measure:**

Ans ☒ 1. rain precipitation

☒ 2. underground water level

☒ 3. earthquakes

☒ 4. underground mineral content

Question ID : 26433064189

Status : Answered

Chosen Option : 3

**Q.21 This event is celebrated to mark the resurrection of Christ. Identify the event.**

Ans ☒ 1. Easter

☒ 2. Christmas

☒ 3. Holy Thursday

☒ 4. Good Friday

Question ID : 264330111153

Status : Not Answered

Chosen Option : --

**Q.22** Which of the following is another name for starch found mainly in the pulp of seeds, fruits, tubers, roots and stems of plants, especially in corn, potatoes, wheat and rice?

Ans ☒ 1. Amylum

☐ 2. Xanthan

☐ 3. Olestra

☐ 4. Saponin

Question ID : 264330113492

Status : Not Answered

Chosen Option : --

**Q.23** Which of the following systems of the Delhi sultanate had a influence on the Bahmani and Vijayanagar kingdoms?

Ans ☐ 1. Walis

☐ 2. Cahalgani

☐ 3. Bitikchi

☒ 4. Iqtadari

Question ID : 264330114839

Status : Answered

Chosen Option : 4

**Q.24** What is the product formed when  $\text{CH}_3\text{CH}_2\text{OH}$  reacts with  $\text{O}_2$ ?

Ans ☐ 1.  $\text{H}_2\text{O}$  + heat

☒ 2.  $\text{CO}_2$  +  $\text{H}_2\text{O}$  + heat and light

☐ 3.  $\text{CO}_2$  +  $\text{H}_2\text{O}$  + light

☐ 4.  $\text{CO}_2$  + heat and light

Question ID : 264330134862

Status : Not Answered

Chosen Option : --

**Q.25** What was the function of an officer called Samaharta?

Ans ☐ 1. Reserve the state treasury

☒ 2. Tax assessment

☐ 3. Security assurance

☐ 4. To correspond

Question ID : 264330114021

Status : Not Answered

Chosen Option : --

Section : Quantitative Aptitude



Q.1 The lengths of the three sides of a triangle are 30 cm, 42 cm and x cm. Which of the following is correct?

- Ans ☒ 1.  $12 \leq x < 72$   
☒ 2.  $12 > x > 72$   
☒ 3.  $12 < x < 72$   
☒ 4.  $12 \leq x \leq 72$

Question ID : 264330126536

Status : Not Answered

Chosen Option : --

Q.2 The largest 5-digit number exactly divisible by 88 is:

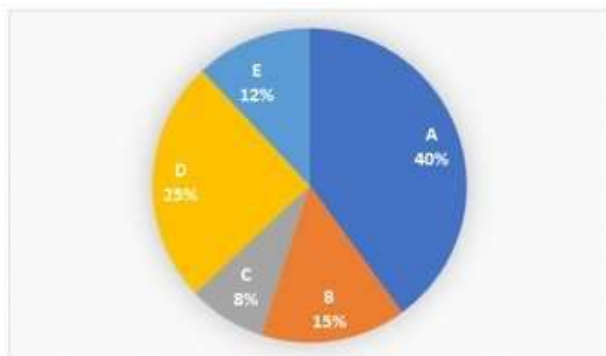
- Ans ☒ 1. 99990  
☒ 2. 99984  
☒ 3. 99978  
☒ 4. 99968

Question ID : 264330129986

Status : Answered

Chosen Option : 2

Q.3 The following pie chart shows the monthly sale of laptops of five companies A, B, C, D and E in a store.



If 2,500 laptops were sold by the store in a month, then what is the difference between the number of laptops sold of Company A and that of Company C?

- Ans ☒ 1. 750  
☒ 2. 650  
☒ 3. 800  
☒ 4. 700

Question ID : 264330131486

Status : Answered

Chosen Option : 3

Q.4 If  $a + \frac{1}{a} = 7$ , then  $a^5 + \frac{1}{a^5}$  is equal to:

- Ans ☒ 1. 15127  
☒ 2. 13127  
☒ 3. 14527  
☒ 4. 11512

Question ID : 264330126230  
Status : Answered  
Chosen Option : 1

Q.5 Find the value of  $\cos 47^\circ \sec 133^\circ + \sin 44^\circ \operatorname{cosec} 136^\circ$ .

- Ans ☒ 1.  $\frac{1}{2}$   
☒ 2. 1  
☒ 3. 0  
☒ 4. -1

Question ID : 264330114325  
Status : Not Attempted and Marked For Review  
Chosen Option : --

Q.6 A, B and C run simultaneously, starting from a point, around a circular track of length 1200m, at respective speeds of 2m/s, 4m/s and 6m/s. A and B run in the same direction, while C runs in the opposite direction to the other two. After how much time will they meet for the first time?

- Ans ☒ 1. 10 minutes  
☒ 2. 9 minutes  
☒ 3. 12 minutes  
☒ 4. 11 minutes

Question ID : 264330104206  
Status : Answered  
Chosen Option : 2

Q.7 A sum of money invested at a certain rate of simple interest per annum amounts to ₹14,522 in seven years and to ₹18,906 in eleven years. Find the sum invested (in ₹).

- Ans ☒ 1. 6850  
☒ 2. 6900  
☒ 3. 6800  
☒ 4. 6750

Question ID : 264330112542  
Status : Answered  
Chosen Option : 1

**Q.8** If the side of an equilateral triangle is increased by 34%, then by what percentage will its area increase?

- Ans ☒ 1. 70.65%
- ☒ 2. 79.56%
- ☒ 3. 68.25%
- ☒ 4. 75.15%

Question ID : 264330126535  
Status : Answered  
Chosen Option : 2

**Q.9** Find the sum of  $3 + 3^2 + 3^3 + \dots + 3^8$ .

- Ans ☒ 1. 6561
- ☒ 2. 6560
- ☒ 3. 9840
- ☒ 4. 3280

Question ID : 264330145548  
Status : Not Answered  
Chosen Option : --

**Q.10** A,B and C can do a piece of work in 30 days, 40 days and 50 days, respectively. Beginning with A, if A, B and C do the work alternatively then in how many days will the work be finished?

- Ans ☒ 1.  $38\frac{1}{12}$
- ☒ 2.  $36\frac{1}{2}$
- ☒ 3. 36
- ☒ 4.  $39\frac{1}{12}$

Question ID : 264330109259  
Status : Answered  
Chosen Option : 3

**Q.11** A thief is spotted by a constable from 200 m. When the constable starts the chase, the thief also starts running. If the speed of the constable is 8 km/h and thief runs at the speed of 6 km/h, then how far (in m) will the thief be able to run before he is overtaken?

- Ans ☒ 1. 600
- ☒ 2. 400
- ☒ 3. 550
- ☒ 4. 500

Question ID : 264330129447  
Status : Answered  
Chosen Option : 1

**Q.12** In a bag containing red, green and blue pens, the ratio of red, blue and green pens, in the given order, was 7 : 4 : 9. If the total number of pens in the bag was 320, how many of them were red?

- Ans ☒ 1. 112  
☒ 2. 105  
☒ 3. 119  
☒ 4. 126

Question ID : 264330103270  
 Status : Answered  
 Chosen Option : 1

**Q.13** Ravi can do a piece of work in 40 days and Sudha can do the same piece of work in 60 days. If they work on alternative days starting with Sudha on the first day, then in how many days will the work be completed?

- Ans ☒ 1. 40  
☒ 2. 60  
☒ 3. 48  
☒ 4. 45

Question ID : 264330109260  
 Status : Answered  
 Chosen Option : 3

**Q.14** An arc of length 23.1 cm subtends an  $18^\circ$  angle at the centre. What is the area of the circle? [Use  $\pi = \frac{22}{7}$ ]

- Ans ☒ 1. 16978.50 cm<sup>2</sup>  
☒ 2. 16988.50 cm<sup>2</sup>  
☒ 3. 16878.50 cm<sup>2</sup>  
☒ 4. 16798.50 cm<sup>2</sup>

Question ID : 264330143520  
 Status : Not Answered  
 Chosen Option : --

**Q.15** Study the given table and answer the question that follows.

The table shows the number of candidates who appeared (App), qualified (Qual) and selected (Sel) in a competitive examination from four states Delhi, Goa, Karnataka, and Maharashtra over the years 2012 to 2016.

| Years | Delhi |      |     | Goa  |      |     | Karnataka |      |     | Maharashtra |      |     |
|-------|-------|------|-----|------|------|-----|-----------|------|-----|-------------|------|-----|
|       | App   | Qual | Sel | App  | Qual | Sel | App       | Qual | Sel | App         | Qual | Sel |
| 2012  | 8000  | 850  | 94  | 7800 | 810  | 82  | 7500      | 720  | 78  | 8200        | 680  | 85  |
| 2013  | 4800  | 500  | 48  | 7500 | 800  | 65  | 5600      | 620  | 85  | 6800        | 600  | 70  |
| 2014  | 9500  | 850  | 90  | 8800 | 920  | 86  | 7000      | 650  | 70  | 7800        | 720  | 84  |
| 2015  | 9000  | 800  | 70  | 7200 | 850  | 75  | 8500      | 950  | 80  | 5700        | 485  | 60  |
| 2016  | 7500  | 640  | 82  | 7400 | 560  | 70  | 4800      | 400  | 48  | 6500        | 525  | 65  |

The number of candidates selected from Maharashtra during the period under review is approximately what percentage of the number selected from Delhi during this period?

- Ans ☒ 1. 96.79%  
☒ 2. 92.79%  
☒ 3. 93.39%  
☒ 4. 94.79%

Question ID : 264330126600  
 Status : Not Answered  
 Chosen Option : --

Q.16 If  $\tan \frac{\pi}{6} + \sec \frac{\pi}{6} = x$ , then find x.

- Ans
- ✓ 1.  $\sqrt{3}$
  - ✗ 2.  $\frac{1}{\sqrt{3}}$
  - ✗ 3.  $\frac{-1}{\sqrt{3}}$
  - ✗ 4.  $\frac{2}{\sqrt{3}}$

Question ID : 26433061095  
Status : Answered  
Chosen Option : 1

Q.17 What is the whole surface area of a cone of base radius 6 cm and height 8 cm?

- Ans
- ✗ 1. 354.50 cm<sup>2</sup>
  - ✗ 2. 350.51 cm<sup>2</sup>
  - ✓ 3. 301.71 cm<sup>2</sup>
  - ✗ 4. 364.61 cm<sup>2</sup>

Question ID : 26433082731  
Status : Answered  
Chosen Option : 3

Q.18 15 men can complete a work in 25 days, and 25 women can complete the same work in 40 days. If all the 15 men and 25 women work together, in how many days will the work get completed?

- Ans
- ✓ 1.  $15 \frac{5}{13}$  days
  - ✗ 2.  $10 \frac{5}{13}$  days
  - ✗ 3.  $15 \frac{5}{12}$  days
  - ✗ 4.  $15 \frac{4}{13}$  days

Question ID : 264330122084  
Status : Answered  
Chosen Option : 1

Q.19 Suhani pays tax at the rate of 30% on her entire income of ₹90,000 and Ritika pays tax at the rate of 40% on her entire income of ₹y. If the overall tax rate on their combined income comes to 37%, then what is the value of y?

- Ans
- ☐ 1. ₹2,04,000
  - ☐ 2. ₹2,16,000
  - ☐ 3. ₹2,13,000
  - ☒ 4. ₹2,10,000

Question ID : 264330131126

Status : Answered

Chosen Option : 4

Q.20 working 5 hours a day, A can complete a task in 8 days and working 6 hours a day, B can finish the same task in 10 days. working 8 hours a day, they can jointly complete the task in \_\_\_\_\_.

- Ans
- ☐ 1. 5 days
  - ☒ 2. 3 days
  - ☐ 3. 4.5 days
  - ☐ 4. 6 days

Question ID : 264330143453

Status : Answered

Chosen Option : 2

Q.21

Simplify,  $\frac{x^4 - 2x^2 + 1}{x^2 - 2x + 1}$ .

- Ans
- ☐ 1.  $x^2 - 2x + 1$
  - ☐ 2.  $x^2 + 2x + 2$
  - ☒ 3.  $x^2 + 2x + 1$
  - ☐ 4.  $x^2 + x + 1$

Question ID : 264330122112

Status : Answered

Chosen Option : 3

Q.22

If  $(x - \frac{1}{x}) = \sqrt{6}$ , and  $x > 1$ , what is the value of  $(x^8 - \frac{1}{x^8})$ ?

- Ans
- ☐ 1.  $1024\sqrt{15}$
  - ☒ 2.  $992\sqrt{15}$
  - ☐ 3.  $998\sqrt{15}$
  - ☐ 4.  $1012\sqrt{15}$

Question ID : 264330101365

Status : Not Answered

Chosen Option : --

Q.23 The successive discounts of 12%, 20% and 25% is equivalent to a single discount of:

- Ans
- ☒ 1. 52.2%
  - ☒ 2. 49.5%
  - ☒ 3. 47.2%
  - ☒ 4. 57.0%

Question ID : 264330103485  
Status : Answered  
Chosen Option : 3

Q.24 If  $\sin \theta = \frac{4}{5}$ , find the value of  $\tan \theta - \cot \theta$ .

- Ans
- ☒ 1.  $\frac{5}{12}$
  - ☒ 2.  $\frac{7}{9}$
  - ☒ 3.  $\frac{7}{12}$
  - ☒ 4.  $\frac{7}{8}$

Question ID : 264330143545  
Status : Answered  
Chosen Option : 3

Q.25 Ram sells a suitcase to Mohan at a 20% profit. Mohan sells it to Shyam at a 40% profit. If Shyam pays ₹1,430 for it, then the price at which Ram bought it is:

- Ans
- ☒ 1. ₹875
  - ☒ 2. ₹870
  - ☒ 3. ₹880
  - ☒ 4. ₹851.19

Question ID : 26433090286  
Status : Answered  
Chosen Option : 4

**Q.1** Select the option that can be used as a one-word substitute for the given group of words.

Any female animal which feeds its young on milk from her own body

- Ans
- ☒ 1. Vertebrate
  - ☒ 2. Parasite
  - ☒ 3. Mammal
  - ☒ 4. Fauna

Question ID : 26433086482  
Status : Answered  
Chosen Option : 3

**Q.2** Select the option that can be used as a one-word substitute for the given group of words.

Certain to happen

- Ans
- ☒ 1. Justifiable
  - ☒ 2. Indispensable
  - ☒ 3. Convertible
  - ☒ 4. Inevitable

Question ID : 26433073971  
Status : Answered  
Chosen Option : 4

**Q.3** Select the INCORRECTLY spelt word.

- Ans
- ☒ 1. Nefew
  - ☒ 2. Father
  - ☒ 3. Niece
  - ☒ 4. Uncle

Question ID : 26433089009  
Status : Answered  
Chosen Option : 1

**Q.4** Select the most appropriate ANTONYM of the given word.

Indolent

- Ans
- ☒ 1. Lazy
  - ☒ 2. Unskilled
  - ☒ 3. Active
  - ☒ 4. Sluggish

Question ID : 26433074054  
Status : Answered  
Chosen Option : 3



**Q.5** Select the most appropriate option that can substitute the underlined segment in the given sentence.

The Indian independence movement sought to establish the conceptions of freedom and social welfare as the goals of an independent Indian state, resulting in Fundamental Rights and Directive Principles.

- Ans ☒ 1. procedures of free mind  
☒ 2. concepts of liberty  
☒ 3. symbols of victory  
☒ 4. methods to sympathise

Question ID : 26433098906  
Status : Answered  
Chosen Option : 2

**Q.6** Select the option that expresses the given sentence in passive voice.

She might have completed her research by that time.

- Ans ☒ 1. Her research might be completed by her by that time.  
☒ 2. Her research might had been completed by her by that time.  
☒ 3. Her research might have been completed by her by that time.  
☒ 4. Her research might have completed by her by that time.

Question ID : 264330136442  
Status : Answered  
Chosen Option : 3

**Q.7** Select the most appropriate option to fill in the blank.

The police were on high alert on account of the \_\_\_\_\_ convict who had killed many people.

- Ans ☒ 1. run after  
☒ 2. walk away  
☒ 3. eloped  
☒ 4. runaway

Question ID : 26433073580  
Status : Answered  
Chosen Option : 3

**Q.8** Select the most appropriate ANTONYM of the underlined word.

He regards himself as a patriot.

- Ans ☒ 1. nationalist  
☒ 2. dutiful  
☒ 3. traitor  
☒ 4. loyal

Question ID : 26433088841  
Status : Answered  
Chosen Option : 3

**Q.9** Select the most appropriate **ANTONYM** of the underlined word.  
Lucy presented a lucid account of her achievements before the committee.

- Ans ☒ 1. orderly  
☒ 2. ambiguous  
☒ 3. intelligible  
☒ 4. transparent

Question ID : 264330122899  
Status : Answered  
Chosen Option : 2

**Q.10** Select the most appropriate meaning of the given idiom.

**Scrape the barrel**

- Ans ☒ 1. Trying to find something  
☒ 2. Hiding something  
☒ 3. Using all the ways to achieve the desired result  
☒ 4. To be forced to use one's last and weakest resource

Question ID : 26433090379  
Status : Answered  
Chosen Option : 4

**Q.11** Select the sentence that uses the given idiom correctly.  
**A dime a dozen**

- Ans ☒ 1. Her ideas were worth a dime a dozen and didn't impress the boss.  
☒ 2. The concert tickets were a dime a dozen and sold out quickly.  
☒ 3. The restaurant had some delicious desserts that were a dime a dozen.  
☒ 4. The antique store had some rare finds, but they were a dime a dozen.

Question ID : 264330139267  
Status : Answered  
Chosen Option : 2

**Q.12** Identify the sentence that correctly uses the indefinite article.

- Ans ☒ 1. She is a Indian artist married to an European engineer.  
☒ 2. She is an Indian artist married to an European engineer.  
☒ 3. She is an Indian artist married to a European engineer.  
☒ 4. She is a Indian artist married to a European engineer.

Question ID : 26433059557  
Status : Answered  
Chosen Option : 3

**Q.13** Select the **INCORRECTLY** spelt word.

- Ans ☒ 1. Fruitful  
☒ 2. Uction  
☒ 3. Wilfull  
☒ 4. Cradle

Question ID : 26433066144  
Status : Answered  
Chosen Option : 2

**Q.14** Select the word which means the same as the group of words underlined in the sentence.

Only the artists who make sculptures are allowed to take part in exhibitions.

- Ans ☒ 1. Painter  
☒ 2. Artisan  
☒ 3. Sculptor  
☒ 4. Potter

Question ID : 26433084888  
Status : Answered  
Chosen Option : 3

**Q.15** Select the most appropriate option to fill in the blank.  
Payments can be made by \_\_\_\_\_ or in cash.

- Ans ☒ 1. chick  
☒ 2. cheek  
☒ 3. cheque  
☒ 4. cheeky

Question ID : 26433099001  
Status : Answered  
Chosen Option : 3

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

Traitor

People should vote for honest and loyal leaders not for betrayer and defender.

- Ans ☒ 1. Honest  
☒ 2. Defender  
☒ 3. Betrayer  
☒ 4. Loyal

Question ID : 26433088325  
Status : Answered  
Chosen Option : 4

**Q.17** The following sentence has been split into four segments. Identify the segment that contains a grammatical error.  
She always / invite me / to / dinner.

- Ans ☒ 1. She always  
☒ 2. to  
☒ 3. dinner  
☒ 4. invite me

Question ID : 26433086455  
Status : Answered  
Chosen Option : 4

**Q.18** Select the option that expresses the given sentence in active voice.  
By whom was the coffee made?

- Ans ☒ 1. Who made the coffee?  
☒ 2. Who had made the coffee?  
☒ 3. Who has made the coffee?  
☒ 4. Who makes the coffee?

Question ID : 264330121832  
Status : Answered  
Chosen Option : 1

**Q.19** Select the most appropriate ANTONYM of the underlined words in the given sentence.

Developed countries are at a disadvantage to have access to modern science and technologies.

- Ans ☒ 1. powered  
☒ 2. privileged  
☒ 3. useless  
☒ 4. unhappy

Question ID : 26433071898  
Status : Answered  
Chosen Option : 2

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

A.According to Homer, Achilles was brought up by his mother at Phthia with his inseparable companion Patroclus.  
B.Achilles was the bravest, handsomest and greatest warrior of the army of Agamemnon in the Trojan War.  
C.Later non-Homeric tales suggest that Patroclus was Achilles' kinsman or lover.  
D.Achilles, in Greek mythology, is the son of the mortal Peleus, king of the Myrmidons, and the Nereid Thetis.

- Ans ☒ 1. ABCD  
☒ 2. DBAC  
☒ 3. DABC  
☒ 4. CABD

Question ID : 26433096947  
Status : Not Attempted and Marked For Review  
Chosen Option : --

**Comprehension:**

In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank.

Ambition is a vital ingredient for success. Without ambition to push us, we will not be (1)\_\_\_\_\_ of great achievements. We all need that special something (2)\_\_\_\_\_ ourselves to give us the willpower to reach a higher goal (3)\_\_\_\_\_ we imagine ourselves capable (4)\_\_\_\_\_.

Yet, ambition, (5)\_\_\_\_\_ money and fire, is a good servant, but a bad master.

**SubQuestion No : 21**

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

- Ans  1. able
-  2. capable
-  3. durable
-  4. curable

Question ID : 264330133311

Status : Answered

Chosen Option : 2

**Comprehension:**

In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank.

Ambition is a vital ingredient for success. Without ambition to push us, we will not be (1)\_\_\_\_\_ of great achievements. We all need that special something (2)\_\_\_\_\_ ourselves to give us the willpower to reach a higher goal (3)\_\_\_\_\_ we imagine ourselves capable (4)\_\_\_\_\_.

Yet, ambition, (5)\_\_\_\_\_ money and fire, is a good servant, but a bad master.

**SubQuestion No : 22**

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

- Ans  1. in
-  2. with
-  3. without
-  4. within

Question ID : 264330133312

Status : Answered

Chosen Option : 4

**Comprehension:**

In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank.

Ambition is a vital ingredient for success. Without ambition to push us, we will not be (1)\_\_\_\_\_ of great achievements. We all need that special something (2)\_\_\_\_\_ ourselves to give us the willpower to reach a higher goal (3)\_\_\_\_\_ we imagine ourselves capable (4)\_\_\_\_\_.

Yet, ambition, (5)\_\_\_\_\_ money and fire, is a good servant, but a bad master.

**SubQuestion No : 23**

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

Ans  1. then

 2. than

 3. that

 4. what

Question ID : 264330133313

Status : Answered

Chosen Option : 3

**Comprehension:**

In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank.

Ambition is a vital ingredient for success. Without ambition to push us, we will not be (1)\_\_\_\_\_ of great achievements. We all need that special something (2)\_\_\_\_\_ ourselves to give us the willpower to reach a higher goal (3)\_\_\_\_\_ we imagine ourselves capable (4)\_\_\_\_\_.

Yet, ambition, (5)\_\_\_\_\_ money and fire, is a good servant, but a bad master.

**SubQuestion No : 24**

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

Ans  1. about

 2. off

 3. of

 4. on

Question ID : 264330133314

Status : Answered

Chosen Option : 3

**Comprehension:**

In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank.

Ambition is a vital ingredient for success. Without ambition to push us, we will not be (1)\_\_\_\_\_ of great achievements. We all need that special something (2)\_\_\_\_\_ ourselves to give us the willpower to reach a higher goal (3)\_\_\_\_\_ we imagine ourselves capable (4)\_\_\_\_\_.

Yet, ambition, (5)\_\_\_\_\_ money and fire, is a good servant, but a bad master.

**SubQuestion No : 25**

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

Ans  1. as

 2. like

 3. such

 4. similarly

Question ID : 264330133315

Status : Answered

Chosen Option : 2