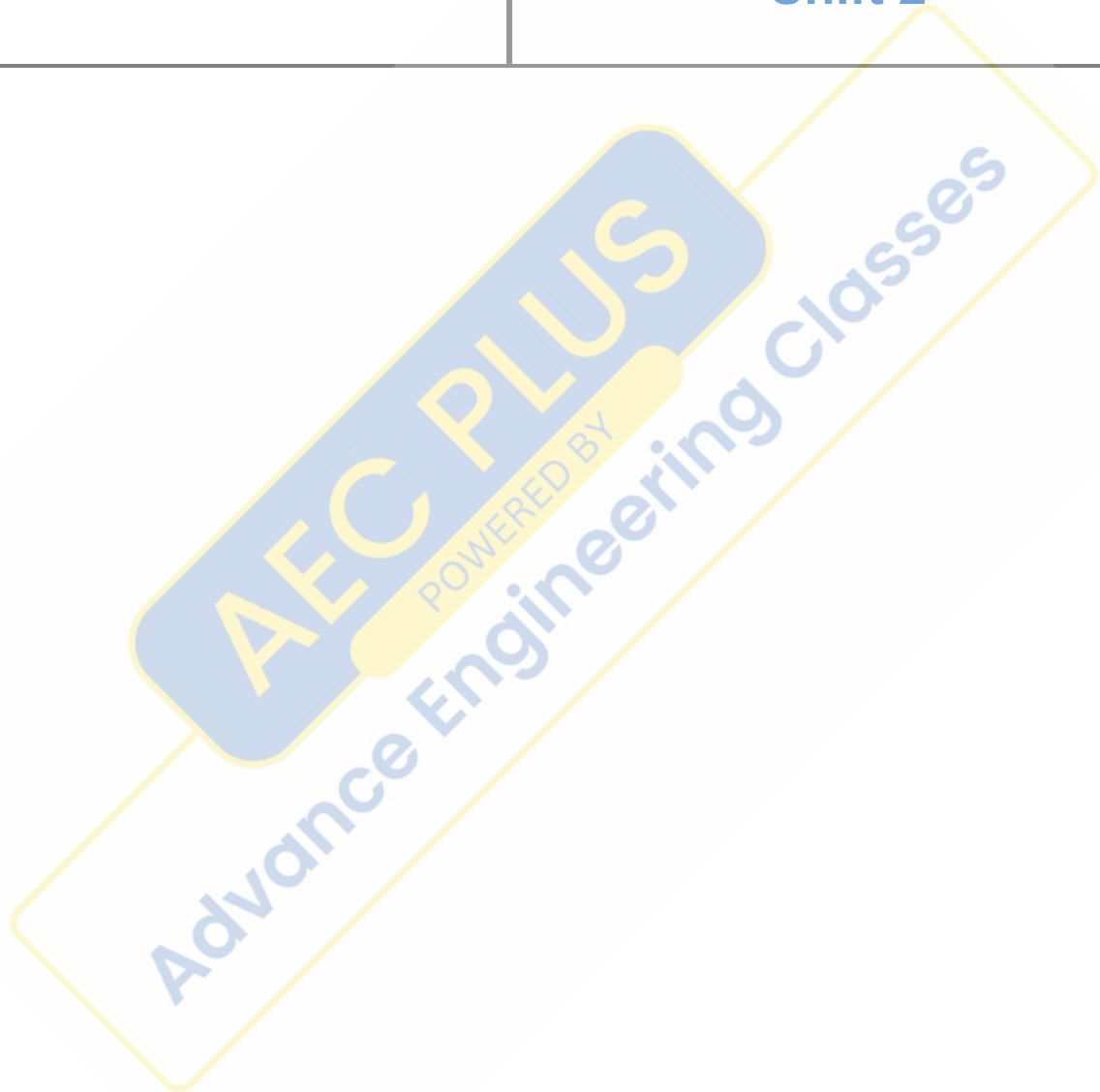


# **DSSSB JE & Section Officer**

**Previous Year Paper  
(Civil) 28 June 2022  
Shift 2**





GOVT. OF NCT OF DELHI  
Delhi Subordinate Services Selection Board  
FC-18, Institutional Area, Karkardooma, Delhi – 110092.  
[www.dsssb.delhigovt.nic.in](http://www.dsssb.delhigovt.nic.in)

Participant ID	
Participant Name	
Test Center Name	
Test Date	28/06/2022
Test Time	12:30 PM - 2:30 PM
Subject	Junior Engineer (Civil) or Section Officer (Civil)

Section : Mental Ability

Q.1 Find the next number in the series.  
165, 120, 85, 60, ?

- Ans
- A. 40
  - B. 50
  - C. 45
  - D. 55

Question ID : 1841223108

Q.2 Two statements are given followed by three conclusions. The given statements are to be considered true. Decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

Statement I : All teachers are truthful.  
Statement II : All truthful are just.  
Conclusion I : Some truthful are teachers.  
Conclusion II : No truthful is a teacher.  
Conclusion III : Some just are teachers.

- Ans
- A. Conclusion II and III follow
  - B. Conclusion I and II follow
  - C. Conclusion I and III follow
  - D. Only conclusion I follows

Question ID : 1841223103

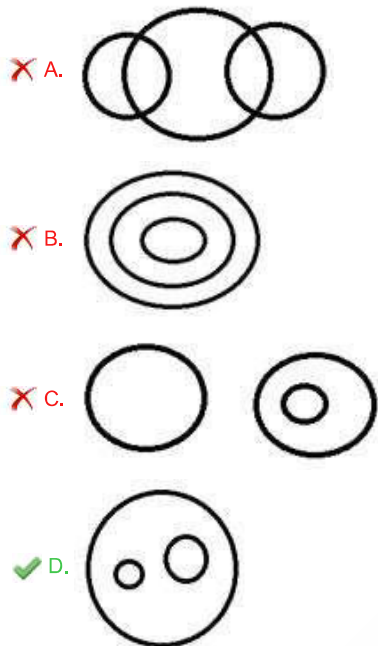
Q.3 Which option will complete the series?  
GAF, GEF, GIF, GOF, ?

- Ans
- A. HAG
  - B. GAH
  - C. FUG
  - D. GUF

Question ID : 1841223095

Q.4 Which of the following Venn diagrams correctly describes the relationship between jackets, mufflers and winterwear?

Ans



Question ID : 1841223093

Q.5 If today is Tuesday, what day will it be after 62 days?

- Ans
- A. Tuesday
  - B. Monday
  - C. Thursday
  - D. Wednesday

Question ID : 1841223092

Q.6 'A + B' means A is neither greater nor smaller than B  
'A \$ B' means A is neither greater than nor equal to B  
'A @ B' means A is neither smaller than nor equal to B  
'A % B' means A is not smaller than B  
'A & B' means A is not greater than B

Based on the conditions, which of the following options is correct for the statement given below?

Statement :  $P \$ Q + S @ U \& V$

- Ans
- A.  $P @ V$
  - B.  $S \& P$
  - C.  $U \$ Q$
  - D.  $Q + U$

Question ID : 1841223094

Q.7 Choose the odd one out.

- Ans
- A. ETAL
  - B. KCAJ
  - C. PIHS
  - D. TSUM

Question ID : 1841223102

Q.8 If 15<sup>th</sup> July is Monday, 17<sup>th</sup> October comes on which day?

- Ans  A. Monday  
 B. Wednesday  
 C. Tuesday  
 D. Thursday

Question ID : 1841223091

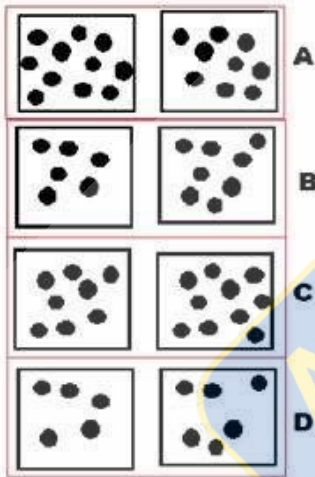
Q.9 If in each number the positions of the first and third digits are interchanged and 1 is added to the middle digit, which number will be at the third position in ascending order?

827, 485, 319, 743

- Ans  A. 319  
 B. 827  
 C. 485  
 D. 743

Question ID : 1841223110

Q.10 Which is the odd figure pair?



- Ans  A. A  
 B. C  
 C. D  
 D. B

Question ID : 1841223105

Q.11 Select the option that is related to the third word in the same way as the second word is related to the first word.  
River : Flow :: Pond : ?

- Ans  A. Stagnant  
 B. Drift  
 C. Course  
 D. Flux

Question ID : 1841223101

Q.12 In the word 'STRING', how many pairs of the letters have the same number of letters between them in the word as in the English Alphabet?

- Ans
- A. 4
  - B. 2
  - C. 3
  - D. 1

Question ID : 1841223096

Q.13 In a certain code PEACEFUL is written as QDBBFEVK. How will you code COMMOTION?

- Ans
- A. DOOPLSNGO
  - B. BMMKORIMO
  - C. BLKKPSJNP
  - D. DNNLPSJNO

Question ID : 1841223097

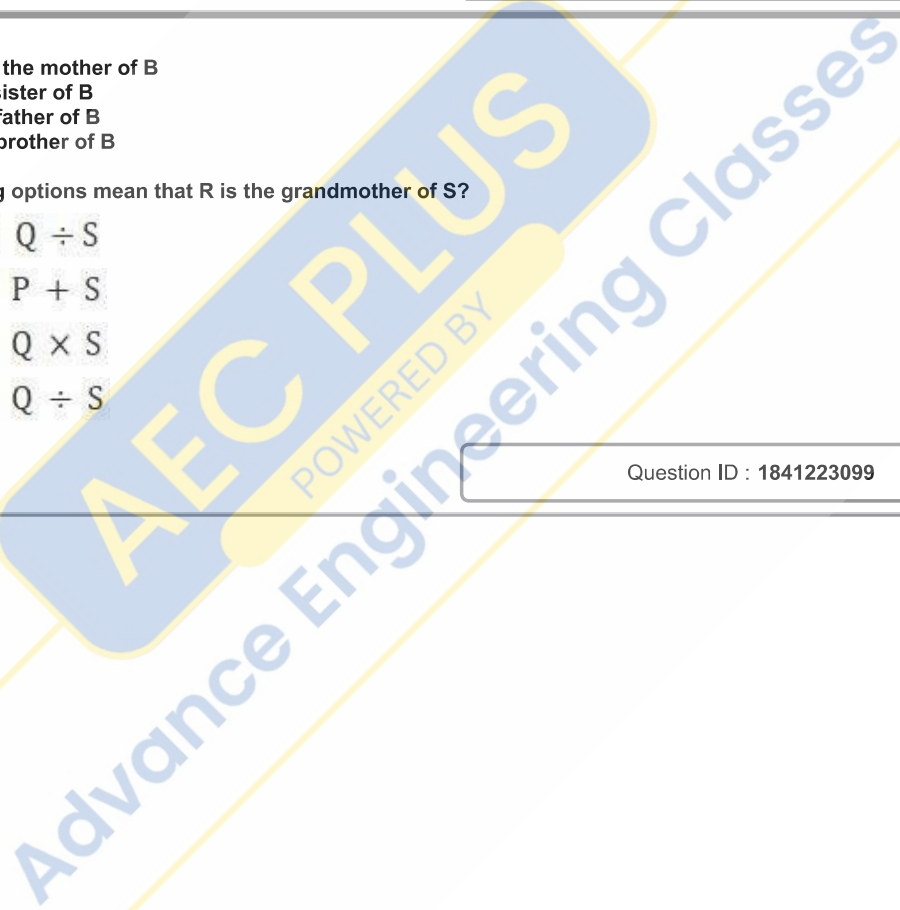
Q.14 If,

- A + B means that A is the mother of B
- A - B means A is the sister of B
- A x B means A is the father of B
- A ÷ B means A is the brother of B

Which of the following options mean that R is the grandmother of S?

- Ans
- A.  $R + P \times Q \div S$
  - B.  $Q \times R - P + S$
  - C.  $R - P \div Q \times S$
  - D.  $P + R - Q \div S$

Question ID : 1841223099



Q.15 Choose the correct box for the given sheet of paper



Ans

A.



B.



C.



D.



Question ID : 1841223107

Q.16 If,  
A + B means A is the mother of B;  
A - B means A is the brother B;  
A % B means A is the father of B and  
A x B means A is the sister of B,

which of the following shows that P is the paternal grandmother of Q?

Ans

A.  $P + R \% S - Q$

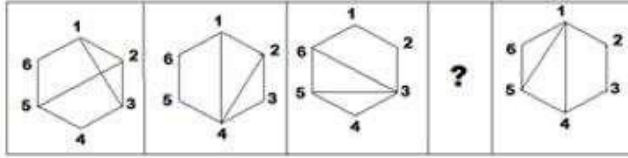
B.  $P \times Q - S + R$

C.  $Q \times S + R \times P$

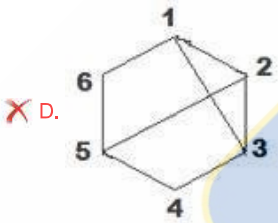
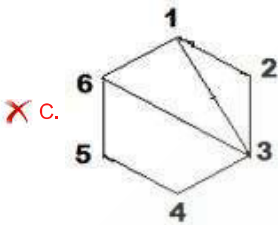
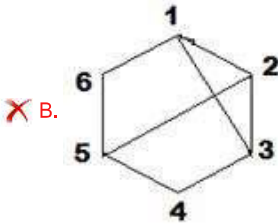
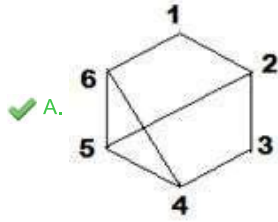
D.  $S - R + P \times Q$

Question ID : 1841223100

Q.17 Complete the series.



Ans



Question ID : 1841223104

Q.18 Find the odd one out.

Ans ✓ A. 75

✗ B. 207

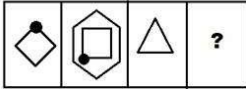
✗ C. 115

✗ D. 299

Question ID : 1841223109



Q.19 Find the correct image which matches the relationship of the third and the fourth figure to that of the first two figures.

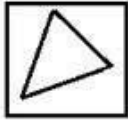


Ans

A.



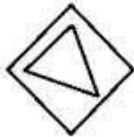
B.



C.



D.



Question ID : 1841223106

Q.20 A and B start moving towards each other from points P and Q, respectively, that are 400 m apart. After walking 120 m, B turns right and goes 40 m, then she turns left and goes 80 m. She then turns left again and reaches the road on which she had started walking. If A and B walk with the same speed, what is the distance between them?

Ans

A. 80 m

B. 60 m

C. 40 m

D. 100 m

Question ID : 1841223098

Section : General Awareness

Q.1 The Koppal Toy Cluster (KTC), which is being developed in the district of Koppalin of \_\_\_\_\_ is the first such infrastructure in the country.

Ans

A. Karnataka

B. Rajasthan

C. Kerala

D. Gujarat

Question ID : 1841223128

Q.2 Which Ministry has set up an online portal named 'Raksha Pension Shikayat Nivaran Portal' that aims to resolve pension-related grievances of ex-servicemen (ESM) and their dependents?

Ans

A. Ministry of Defense

B. Ministry of Finance

C. Ministry of External Affairs

D. Ministry of Law and Justice

Question ID : 1841223114



**Q.3 One of the oldest Buddhist monuments in India, the Great Stupa at Sanchi was originally built in the 3rd century BCE by which king?**

- Ans  A. Krishnadevaraya  
 B. Ashoka  
 C. Shah Jahan  
 D. Prithviraj Chauhan

Question ID : 1841223121

**Q.4 Chalo, Wancho and Pasi Kongki are the folk dances of which of the following state?**

- Ans  A. Mizoram  
 B. Assam  
 C. Odisha  
 D. Arunachal Pradesh

Question ID : 1841223123

**Q.5 Which of the following war songs are sung in Nagaland?**

- Ans  A. Bhagawati  
 B. Alha  
 C. Baul  
 D. Hereileu

Question ID : 1841223122

**Q.6 TCS partnered with whom to become the new title sponsor and official IT services and technology consulting partner of the Toronto Waterfront Marathon through November 2026?**

- Ans  A. UK Running Series  
 B. Canada Running Series  
 C. US Running Series  
 D. Australia Running Series

Question ID : 1841223118

**Q.7 The government of which state has signed Bollywood actor Sanjay Dutt as the brand ambassador on the occasion of the golden jubilee celebrations, marking the 50<sup>th</sup> year of the naming of the state?**

- Ans  A. Himachal Pradesh  
 B. Arunachal Pradesh  
 C. Kerala  
 D. Karnataka

Question ID : 1841223116

**Q.8 Which of the following is a scientific device that is used to measure the speed and rate of flow of a fluid that is flowing in a pipe?**

- Ans  A. Tachometer  
 B. Telemeter  
 C. Venturimeter  
 D. Tonometer

Question ID : 1841223130

Q.9 Which microfinance institution has an extensive network of branches throughout 22 states in India and offers microloans to women entrepreneurs from low-income households for income generation activities?

- Ans
- A. Bandhan Financial Services Limited
  - B. Arohan Financial Services Limited
  - C. Asirvad Microfinance Limited
  - D. Cashpor Micro Credit

Question ID : 1841223125

Q.10 Big Dipper, the Great Bear or the Saptarshi is an example of \_\_\_\_\_.

- Ans
- A. Asteroids
  - B. Planets
  - C. Constellations
  - D. Meteoroids

Question ID : 1841223129

Q.11 Jallikattu is celebrated in the Indian state of Tamil Nadu as a part of Pongal celebration on which day?

- Ans
- A. Pongolo Pongal
  - B. Kannum Pongal - Fourth day
  - C. Maattu Pongal day - Third day
  - D. Bhogi - First day

Question ID : 1841223124

Q.12 Industrial Finance Corporation of India is a development finance institution under the jurisdiction of Ministry of Finance, Government of India which was established in \_\_\_\_\_.

- Ans
- A. 1948
  - B. 1950
  - C. 1952
  - D. 1945

Question ID : 1841223126

Q.13 Which state Government has decided to conduct a large-scale survey, to understand the impact of the COVID-19 pandemic on the psychological and emotional behaviour of school children?

- Ans
- A. Karnataka
  - B. Gujarat
  - C. Maharashtra
  - D. Delhi

Question ID : 1841223115

Q.14 As per India's National Health Profile 2019, life expectancy in India for females is 70.2 in 2012 - 16 and it is \_\_\_\_\_ for males in the same period.

- Ans
- A. 67.4
  - B. 77.3
  - C. 75.4
  - D. 68.2

Question ID : 1841223127

Q.15 The Indian Space Research Organisation has signed an agreement with which Chinese smart devices maker to strengthen the research and development of the NavIC messaging service?

- Ans
- A. Lenovo
  - B. Oppo
  - C. Xiaomi
  - D. Huawei

Question ID : 1841223112

Q.16 Who served from 1809 to 1814 in the Revenue Department of the East India Company also worked as a personal Diwan to Woodforde and Digby?

- Ans
- A. Raja Ram Mohan Roy
  - B. Jyotiba Phule
  - C. Bal Gangadhar Tilak
  - D. Chandrashekhar Azad

Question ID : 1841223120

Q.17 Warren Hastings established the Calcutta Madrassa in which year for the teaching of Mohammedan law?

- Ans
- A. 1813
  - B. 1872
  - C. 1780
  - D. 1742

Question ID : 1841223119

Q.18 The Indian Space Research Organisation (ISRO) has signed \_\_\_\_\_ for launching foreign satellites during 2021-2023.

- Ans
- A. six agreements with four countries
  - B. three agreements with two countries
  - C. seven agreements with five countries
  - D. four agreements with four countries

Question ID : 1841223113

Q.19 The women's team from Ladakh has lifted the \_\_\_\_\_ National Women's Ice Hockey Championship in Himachal Pradesh.

- Ans
- A. 5<sup>th</sup>
  - B. 9<sup>th</sup>
  - C. 6<sup>th</sup>
  - D. 8<sup>th</sup>

Question ID : 1841223117

Q.20 The 7<sup>th</sup> edition of the four-day India International Science Festival (IISF) was held in \_\_\_\_\_, from December 10 to 13, 2021.

- Ans
- A. Assam
  - B. Sikkim
  - C. Goa
  - D. Meghalaya

Question ID : 1841223111

Section : Arithmetic Ability

**Q.1** In a maternity Centre 6% of all the child birth result is twins. What is the approximate percentage of twins out of total children born. (upto one decimal)

- Ans  A. 11.3  
 B. 8.3  
 C. 9.3  
 D. 10.3

Question ID : 1841223136

**Q.2** The effective annual rate of interest corresponding to a compound interest of 10% per annum payable half yearly is:

- Ans  A. 9.25%  
 B. 10.25%  
 C. 12.25%  
 D. 11.25%

Question ID : 1841223138

**Q.3** Ravi can do three-fifth of the work in 9 days and Rakesh can finish the remaining in 14 days. How long would they take to finish it together?

- Ans  A. 10,5 days  
 B. 11 days  
 C. 11,5 days  
 D. 10 days

Question ID : 1841223142

**Q.4** What is the remainder when  $1312 \times 1313 \times 1315$  is divided by 9.

- Ans  A. 3  
 B. 0  
 C. 2  
 D. 1

Question ID : 1841223132

**Q.5** A square is inscribed in a circle which is inscribed in an equilateral triangle. If one side of the triangle is 6 cm. Find the area of the square.

- Ans  A.  $4 \text{ cm}^2$   
 B.  $5 \text{ cm}^2$   
 C.  $7 \text{ cm}^2$   
 D.  $6 \text{ cm}^2$

Question ID : 1841223146

Q.6

Find the value of  $\frac{(63421)^2 - (32178)^2}{31243}$ .

- Ans
- A. 95598
  - B. 95636
  - C. 95599
  - D. 95589

Question ID : 1841223133

Q.7 The ratio of the amount for 2 years under compound interest annually and for one year under simple interest is 7 : 6. When the rate of interest is same, find the rate of interest. (upto two decimals)

- Ans
- A. 16.67%
  - B. 13.67%
  - C. 15.67%
  - D. 14.67%

Question ID : 1841223139

Q.8 Subtracting 35% of P from P is equivalent to multiplying P by:

- Ans
- A. 0.55 P
  - B. 0.64 P
  - C. 0.65 P
  - D. 0.63 P

Question ID : 1841223135

Q.9 Study the following Bar chart and answer the questions.



The two consecutive years between which the rate of decrease of mobile phones is minimum :

- Ans
- A. 2016 - 17
  - B. 2018 - 19
  - C. 2017 - 18
  - D. 2015 - 16

Question ID : 1841223150

Q.10 HCF of two numbers A and B is 25. HCF of two other numbers C and D is 32. What will be the HCF of A, B, C and D

- Ans
- A. 3
  - B. 1
  - C. 5
  - D. 2

Question ID : 1841223131

Q.11 Five gallons are drawn from a cask full of wine. It is then filled with water. Five gallons of mixture are again drawn and the cask is refilled with water. The ratio of the quantity of wine now left in the cask to that of the mixture in it 16 : 25. How much does the cask hold.

- Ans
- A. 22 gallons
  - B. 21 gallons
  - C. 24 gallons
  - D. 25 gallons

Question ID : 1841223144

Q.12 A certain number of people completed a job in 21 days. If there were 3 persons less, the work would have taken 7 more days. How many persons were there initially?

- Ans
- A. 11
  - B. 10
  - C. 12
  - D. 13

Question ID : 1841223141

Q.13 Average age of A, B and C is 72 years, however when D joins them then the average comes down to 70. Now a new person E whose age is 4 years more than D replaces A and the new average is 69 years. What is the age of A?

- Ans
- A. 72 years
  - B. 71 years
  - C. 70 years
  - D. 73 years

Question ID : 1841223143

Q.14 The following table shows the courier charges (in ₹) for sending a 1 kg parcel from one city to another. Study the table carefully and answer the questions.

Cities	Andhra Pradesh	Telangana	Karnataka	Chennai	Kerala
Andhra pradesh	-	20	22	18	15
Telangana	20	-	17	24	29
Karnataka	22	17	-	16	21
Chennai	18	24	16	-	23
Kerala	15	29	21	23	-

For sending the parcel from Karnataka the least charges will be for:

- Ans
- A. Andhra Pradesh
  - B. Kerala
  - C. Chennai
  - D. Telangana

Question ID : 1841223148

Q.15 Find the total number of composite factors  $N = 340$ .

- Ans
- A. 6
  - B. 9
  - C. 8
  - D. 7

Question ID : 1841223134



Q.16 Three friends A, B and C donate 6%, 5% and 7% of their salary to a trust in the given order. Salary of A and B is same and the difference of their donations is ₹120. The total donation by A and B is ₹350 more than C's donation. What is the percentage of the total salary to the three donations. (upto two decimals)

- Ans
- A. 4.02
  - B. 4.15
  - C. 6.05
  - D. 3.46

Question ID : 1841223137

Q.17 A toy consists of a base that is the section of a sphere and a conical top. The volume of the conical top  $36\pi \text{ cm}^2$  and its height is 12 cm. The total height of the toy is 20 cm. The volume of the sphere from which the base has been extracted is:

- Ans
- A.  $125\pi$
  - B.  $127\pi$
  - C.  $127.4\pi$
  - D.  $126.4\pi$

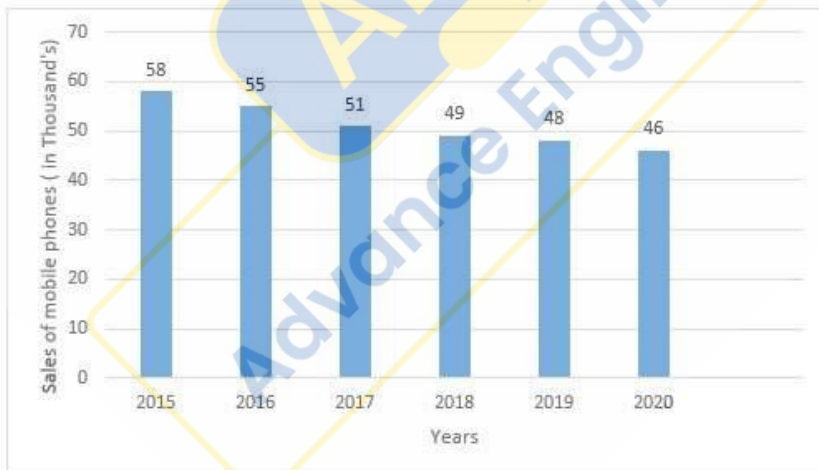
Question ID : 1841223147

Q.18 The three sides of a triangle measure 5 cm, 12 cm and 13 cm respectively. A rectangle equal in area to the triangle has a length of 10 cm. The perimeter of the rectangle is

- Ans
- A. 24 cm
  - B. 26 cm
  - C. 23 cm
  - D. 25 cm

Question ID : 1841223145

Q.19 Study the following Bar chart and answer the questions.



The percentage increase or decrease in sales from 2019 to 2020 was:

- Ans
- A. 4.36
  - B. 4.25
  - C. 4.52
  - D. 4.34

Question ID : 1841223149



**Q.20**  $x$  men can do a piece of work in 6 days. The same work can be done by  $(x + 3)$  men in 4 days. Find the value of  $x$ .

- Ans
- A. 3
  - B. 5
  - C. 4
  - D. 6

Question ID : 1841223140

Section : General English

**Q.1** Select the most appropriate Antonym of the given word.

**DAZZLE**

- Ans
- A. roam
  - B. dim
  - C. blabber
  - D. shoot

Question ID : 1841223155

**Q.2** Complete the sentence using an appropriate preposition choosing from the following options given.

\_\_\_\_\_ the storm comes the calm.

- Ans
- A. after
  - B. above
  - C. on
  - D. across

Question ID : 1841223153

**Q.3** Complete the sentence using an appropriate preposition choosing from the following options given.

I have been learning the violin \_\_\_\_\_ I was seven.

- Ans
- A. From
  - B. As
  - C. If
  - D. Since

Question ID : 1841223151

**Q.4** Fill in the blank with the correctly spelled word choosing from the options given below.

After observing the man and woman treating each other, we made an \_\_\_\_\_ that they were married.

- Ans
- A. inference
  - B. inferance
  - C. infarance
  - D. infernce

Question ID : 1841223161

**Q.5** Fill in the blank with the correctly spelled word choosing from the options given below.

Each character has its personality, and some of them are rather \_\_\_\_\_.

- Ans
- A. humorous
  - B. humerous
  - C. humeros
  - D. humoros

Question ID : 1841223160

**Q.6** Complete the sentence using an appropriate adverb choosing from the following options given.

Saad isn't very well. He still hasn't \_\_\_\_\_ recovered from Covid.

- Ans
- A. deeply
  - B. hardly
  - C. fully
  - D. highly

Question ID : 1841223152

**Q.7** Select the most appropriate Synonym of the given word.

**ACCOMPLISH**

- Ans
- A. halt
  - B. guide
  - C. freeze
  - D. conclude

Question ID : 1841223156

**Q.8** Select the most appropriate option to fill in the blank.  
A man can't be too \_\_\_\_\_ in the choice of his enemies.

- Ans
- A. Striking
  - B. Cheerful
  - C. Connecting
  - D. Careful

Question ID : 1841223165

**Q.9** Given below are four jumbled sentences select the option that gives their correct logical sequence.

- A. It is the water in cellular organic matter that converts microwaves to heat energy with great efficiency and rapidity whereas other components such as starch, cellulose and protein are nowhere near as efficient.
- B. Least effective as an energy converter is fatty tissue which normally contains a very small amount of moisture.
- C. The most important material in any food is water.
- D. It is the major constituent of the cellular material and many foods contain over 70% of their normal weight as water.

- Ans
- A. BADC
  - B. ACDB
  - C. CADB
  - D. CDAB

Question ID : 1841223162

Q.10 Select the most appropriate option to fill in the blank.  
I like the little peddler \_\_\_\_\_ has a crooked nose.

- Ans  A. Which  
 B. When  
 C. Who  
 D. What

Question ID : 1841223164

Q.11 Given below are four jumbled sentences select the option that gives their correct logical sequence.

- A. The domestic pressure cooker is usually constructed of heavy gauge aluminium and the pressure is regulated by weights placed upon a release valve.  
B. A common practice in pressure cooking is to allow a copious flow of steam from the release valve before capping it with weights.  
C. A safety valve is always fitted to prevent pressure inadvertently building up beyond the safe and specified level for the vessel construction.  
D. This ensures that all air is removed before the cooking process starts.

- Ans  A. BADC  
 B. ADBC  
 C. CDAB  
 D. ACBD

Question ID : 1841223163

Q.12 Put the verbs in brackets into correct or more suitable verb form (future tense) choosing from the options given below.  
Mr. Mehta (give) another lecture at the same time next week.

- Ans  A. will gave  
 B. will be giving  
 C. gave  
 D. will gives

Question ID : 1841223154

Q.13 Select the most appropriate meaning which best expresses the meaning of the given Idiom in the bold.  
He is ready to **DISPOSE OFF** his car for Rs.1,50,000.

- Ans  A. lend  
 B. ruin  
 C. sell  
 D. destroy

Question ID : 1841223158

Q.14 Read the sentence and select the homophone which will correctly complete the sentence.  
Fools rush in \_\_\_\_\_ angels fear to Tread.

- Ans  A. Where  
 B. Were  
 C. Weir  
 D. Wire

Question ID : 1841223157

**Q.15 Select the most appropriate meaning which best expresses the meaning of the given Idiom.**

**I have HIT UPON a good plan to get rid of him.**

- Ans
- A. Found
  - B. Created
  - C. Curated
  - D. Lost

Question ID : 1841223159

**Comprehension:**

Read the following passage and answer the questions given below.

**FEEDING THE PRETERM BABY**

Studies conducted at Sooriya Hospital, Chennai in 2017 on premature babies showed that swabbing the insides of cheeks with colostrum several times a day helps to bring down the incidence of hospital-acquired infections and speeds up overall recovery.

The preterm babies are best fed with unprocessed human milk obtained from their mothers. It has been shown that milk of mothers delivering prematurely has higher protein chloride and sodium content which is suitable for the nutritional needs of low-birth-weight babies.

Antimicrobial property of breast milk is of great importance to the preterm baby and the incidence of infectious sepsis and meningitis are greatly reduced. If the baby does not gain weight satisfactorily with breast milk alone, dietary supplements like vegetable oils (corn oil, groundnut oil) may be used which increase the caloric value without increasing its volume.

The advantages of feeding breast milk to preterm babies are availability of easily digestible protein and fat and feeding tolerance. Factors in human milk may stimulate GI growth, motility and maturation. Enzymes naturally present in human milk help in the absorption and utilization of nutrients.

The decision whether the baby is to be breast fed or through a gavage is guided by maturity, birth weight and general condition of the baby. The infant can be started with expressed mother's milk. Bolus, intermittent, naso-gastric tube feeds every 2 hours in small babies and every 3 hours in larger babies can be done. Initial volume used will be as low as 1 - 2 ml for feeding infants of 1000g or less or as much as 4 - 5 ml per feed for an infant of 1500 g. If oral feed is tolerated, then increase the volume of feeding by 1ml/day in smaller infants or by as much as 3 - 5 ml in the larger infants. Feeding must be reduced, withheld or even omitted entirely when there is gastric retention or abdominal distention. Ultimately the volume of intake should be 150 - 170 ml/kg/day and calorie value 110 -120 ml/kg/day. If the rate of weight gain is low, the calorie intake is increased by adding vegetable oil (coconut oil or peanut oil, 0.5 ml every other meal). Most infants begin to gain more rapidly as their postnatal weight approaches 1400-1500 g and their caloric intake increases.

**SubQuestion No : 16**

**Q.16 Fill in the blanks with correct word (from the passage) choosing from the options given below.**

**Enzymes naturally present in human milk help in the \_\_\_\_\_ and \_\_\_\_\_ of nutrients.**

- Ans
- A. Reduction and Retention
  - B. Sodium and Protein
  - C. Absorption and Utilisation
  - D. Sepsis and Meningitis

Question ID : 1841223170

### Comprehension:

Read the following passage and answer the questions given below.

#### FEEDING THE PRETERM BABY

Studies conducted at Sooriya Hospital, Chennai in 2017 on premature babies showed that swabbing the insides of cheeks with colostrum several times a day helps to bring down the incidence of hospital-acquired infections and speeds up overall recovery.

The preterm babies are best fed with unprocessed human milk obtained from their mothers. It has been shown that milk of mothers delivering prematurely has higher protein chloride and sodium content which is suitable for the nutritional needs of low-birth-weight babies.

Antimicrobial property of breast milk is of great importance to the preterm baby and the incidence of infectious sepsis and meningitis are greatly reduced. If the baby does not gain weight satisfactorily with breast milk alone, dietary supplements like vegetable oils (corn oil, groundnut oil) may be used which increase the caloric value without increasing its volume. The advantages of feeding breast milk to preterm babies are availability of easily digestible protein and fat and feeding tolerance. Factors in human milk may stimulate GI growth, motility and maturation. Enzymes naturally present in human milk help in the absorption and utilization of nutrients.

The decision whether the baby is to be breast fed or through a gavage is guided by maturity, birth weight and general condition of the baby. The infant can be started with expressed mother's milk. Bolus, intermittent, naso-gastric tube feeds every 2 hours in small babies and every 3 hours in larger babies can be done. Initial volume used will be as low as 1 - 2 ml for feeding infants of 1000g or less or as much as 4 - 5 ml per feed for an infant of 1500 g. If oral feed is tolerated, then increase the volume of feeding by 1ml/day in smaller infants or by as much as 3 - 5 ml in the larger infants. Feeding must be reduced, withheld or even omitted entirely when there is gastric retention or abdominal distention. Ultimately the volume of intake should be 150 - 170 ml/kg/day and calorie value 110 -120 ml/kg/day. If the rate of weight gain is low, the calorie intake is increased by adding vegetable oil (coconut oil or peanut oil, 0.5 ml every other meal). Most infants begin to gain more rapidly as their postnatal weight approaches 1400-1500 g and their caloric intake increases.

#### SubQuestion No : 17

**Q.17 Which quality of the breast milk reduces the higher chances of infectious sepsis and meningitis in the preterm babies?**

- Ans
- A. Antibacterial
  - B. Hypoglycaemic
  - C. Anti-inflammatory
  - D. Antimicrobial

Question ID : 1841223168

### Comprehension:

Read the following passage and answer the questions given below.

#### FEEDING THE PRETERM BABY

Studies conducted at Sooriya Hospital, Chennai in 2017 on premature babies showed that swabbing the insides of cheeks with colostrum several times a day helps to bring down the incidence of hospital-acquired infections and speeds up overall recovery.

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Antimicrobial property of breast milk is of great importance to the preterm baby and the incidence of infectious sepsis and meningitis are greatly reduced. If the baby does not gain weight satisfactorily with breast milk alone, dietary supplements like vegetable oils (corn oil, groundnut oil) may be used which increase the caloric value without increasing its volume. The advantages of feeding breast milk to preterm babies are availability of easily digestible protein and fat and feeding tolerance. Factors in human milk may stimulate GI growth, motility and maturation. Enzymes naturally present in human milk help in the absorption and utilization of nutrients.

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#### SubQuestion No : 18

Q.18 What does the caloric value of infants range from?

- Ans
- A. 130-160 ml/kg/day
  - B. 150-170 ml/kg/day
  - C. 1400-1500 g
  - D. 110-120 ml/kg/day

Question ID : 1841223169



### Comprehension:

Read the following passage and answer the questions given below.

#### FEEDING THE PRETERM BABY

Studies conducted at Sooriya Hospital, Chennai in 2017 on premature babies showed that swabbing the insides of cheeks with colostrum several times a day helps to bring down the incidence of hospital-acquired infections and speeds up overall recovery.

The preterm babies are best fed with unprocessed human milk obtained from their mothers. It has been shown that milk of mothers delivering prematurely has higher protein chloride and sodium content which is suitable for the nutritional needs of low-birth-weight babies.

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#### SubQuestion No : 19

Q.19 Mother's milk contains higher content of \_\_\_\_\_?

- Ans
- A. Calcium Chloride and Zinc
  - B. Magnesium Chloride and Sodium
  - C. Protein Chloride and Sodium
  - D. Sodium Chloride and Nickel

Question ID : 1841223167



**Comprehension:**

Read the following passage and answer the questions given below.

**FEEDING THE PRETERM BABY**

Studies conducted at Sooriya Hospital, Chennai in 2017 on premature babies showed that swabbing the insides of cheeks with colostrum several times a day helps to bring down the incidence of hospital-acquired infections and speeds up overall recovery.

The preterm babies are best fed with unprocessed human milk obtained from their mothers. It has been shown that milk of mothers delivering prematurely has higher protein chloride and sodium content which is suitable for the nutritional needs of low-birth-weight babies.

Antimicrobial property of breast milk is of great importance to the preterm baby and the incidence of infectious sepsis and meningitis are greatly reduced. If the baby does not gain weight satisfactorily with breast milk alone, dietary supplements like vegetable oils (corn oil, groundnut oil) may be used which increase the caloric value without increasing its volume. The advantages of feeding breast milk to preterm babies are availability of easily digestible protein and fat and feeding tolerance. Factors in human milk may stimulate GI growth, motility and maturation. Enzymes naturally present in human milk help in the absorption and utilization of nutrients.

The decision whether the baby is to be breast fed or through a gavage is guided by maturity, birth weight and general condition of the baby. The infant can be started with expressed mother's milk. Bolus, intermittent, naso-gastric tube feeds every 2 hours in small babies and every 3 hours in larger babies can be done. Initial volume used will be as low as 1 - 2 ml for feeding infants of 1000g or less or as much as 4 - 5 ml per feed for an infant of 1500 g. If oral feed is tolerated, then increase the volume of feeding by 1ml/day in smaller infants or by as much as 3 - 5 ml in the larger infants. Feeding must be reduced, withheld or even omitted entirely when there is gastric retention or abdominal distention. Ultimately the volume of intake should be 150 - 170 ml/kg/day and caloric value 110 -120 ml/kg/day. If the rate of weight gain is low, the caloric intake is increased by adding vegetable oil (coconut oil or peanut oil, 0.5 ml every other meal). Most infants begin to gain more rapidly as their postnatal weight approaches 1400-1500 g and their caloric intake increases.

**SubQuestion No : 20**

**Q.20** Select the appropriate meaning of the word.  
**MOTILITY**

- Ans
- A. Drift
  - B. Lethal
  - C. Portability
  - D. Morse

Question ID : 1841223171

**Section : General Hindi**

**Q.1** 'कटु सत्य कहना' के अर्थ में निम्न में से किस मुहावरे का प्रयोग होता है-

- Ans
- A. खरी-खोटी सुनाना
  - B. उठा न रखना
  - C. एक आँख से देखना
  - D. खरी-खरी सुनाना

Question ID : 1841223180

**Q.2** 'अनल' पर्याय है-

- Ans
- A. जल का
  - B. अग्नि का
  - C. बादल का
  - D. वायु का

Question ID : 1841223176

Q.3 'इतनी गर्मी पड़े तो सारे ग्लेशियर ही पिघल जाएँ।' वाक्य उदाहरण है-

- Ans  A. सामान्य भविष्य का  
 B. संभाव्य भविष्य का  
 C. हेतुहेतुमन्द्रविष्य का  
 D. संभाव्य वर्तमान का

Question ID : 1841223184

Q.4 'श्रावण' में है-

- Ans  A. दीर्घ संधि  
 B. यण् संधि  
 C. अयादि संधि  
 D. गुण संधि

Question ID : 1841223175

Q.5 'चुपड़ी और दो-दो' लोकोक्ति का अर्थ है-

- Ans  A. थोड़ा-थोड़ा जमा करके अमीर हो जाओगे।  
 B. थोड़ी वस्तु से बड़ा काम नहीं हो सकता।  
 C. किसी को कष्ट देकर मौज करना।  
 D. उत्तम वस्तु और वह भी इतनी ज़्यादा।

Question ID : 1841223182

Q.6 'अकरम ने रोटी खायी।' वाक्य में कारक है-

- Ans  A. अपादान कारक  
 B. कर्ता कारक  
 C. सम्बंध कारक  
 D. करण कारक

Question ID : 1841223172

Q.7 अमावस्या का विलोम है-

- Ans  A. कुहू  
 B. पूर्णिमा  
 C. प्रकाश  
 D. चाँदनी

Question ID : 1841223178

Q.8 'लता मंगेशकर गीत गा रही हैं।' वाक्य उदाहरण है-

- Ans  A. संदिग्ध वर्तमान का  
 B. सामान्य वर्तमान का  
 C. सम्भाव्य वर्तमान का  
 D. तात्कालिक वर्तमान का

Question ID : 1841223183

Q.9 निम्न शब्दों में से गुणवाचक विशेषण का उदाहरण नहीं है-

- Ans  A. दूना  
 B. दुष्ट  
 C. सतही  
 D. सुडौल

Question ID : 1841223174

Q.10 निम्न में से तुलनावाचक क्रियाविशेषण शब्द है-

- Ans  A. काफी  
 B. उतना  
 C. किंचित  
 D. यथाक्रम

Question ID : 1841223173

Q.11 सर्वोचित शब्द से रिक्त स्थान भरें-  
सेठ जी ने करोड़ों रुपये का \_\_\_\_\_ किया।

- Ans  A. अर्जन  
 B. अर्जुन  
 C. अंजन  
 D. अर्चन

Question ID : 1841223186

Q.12 निम्न में से गंगा का पर्यायवाची शब्द है-

- Ans  A. वासव  
 B. सुरसरित  
 C. आगार  
 D. ईहा

Question ID : 1841223177

Q.13 निम्न में से कौन-सा विलोम युग्म सुमेलित नहीं है-

- Ans  A. आय - व्यय  
 B. अवनत - उन्नत  
 C. अथ - प्रारम्भ  
 D. आशा - निराशा

Question ID : 1841223179

Q.14 'चापलूसी करने' के अर्थ में निम्न में से किस मुहावरे का प्रयोग होगा-

- Ans  A. आँखें बिलछाना  
 B. जूते चाटना  
 C. कान भरना  
 D. ज़मीन आसमान एक करना

Question ID : 1841223181

Q.15 वाक्य विन्यास की दृष्टि से शुद्ध वाक्य है-

- Ans  A. अयोध्या के राजा दशरथ के पुत्र राम ने रावण को मारा।  
 B. रावण को मारा अयोध्या के राजा दशरथ के पुत्र राम ने।  
 C. राम अयोध्या के राजा दशरथ के पुत्र ने रावण को मारा।  
 D. दशरथ अयोध्या के राजा के पुत्र राम ने रावण को मारा।

Question ID : 1841223185

**Comprehension:**

दिए गए गद्यांश के आधार पर प्रश्न के उत्तर दीजिए।

हिंदी क्षेत्र में पुनर्जागरण की चिंगारी औपनिवेशिक शोषण और दमन के प्रति असंतोष से फूटी, जिसका प्रतिफलन 1857 का औपनिवेशिक शासन से विद्रोह था। इतिहासकारों ने स्वीकार किया है कि यद्यपि इस विद्रोह के ज़ाहिर नेता ब्रिटिश शासन से असंतुष्ट भारतीय सामंत थे, पर उन्हें किसानों, सैनिकों, साधु-संतों और मुल्ला-मौलवियों का प्रत्यक्ष – अप्रत्यक्ष दोनों प्रकार का समर्थन प्राप्त था। यह विद्रोह अमानुषिक निर्दयता के साथ कुचल दिया गया, पर उसकी चिंगारी दमन की राख के नीचे बची रह गयी। इस राजनीतिक विद्रोह के साथ ही बंगाल का सामाजिक पुनर्जागरण हिंदी क्षेत्र में पहुँचा। बंगाल नवजागरण के एक प्रमुख नेता केशवचंद्र सेन ने पंजाब को और आर्य समाज के संस्थापक स्वामी दयानंद सरस्वती ने हिंदी क्षेत्र को सामाजिक जागरण-आंदोलन के लिए चुना। ठीक इसी समय सर सैयद अहमद और अब्दुल्ला साहब आदि ने मुस्लिम समाज में 'नयी रौशनी' फैलाने का आंदोलन शुरू किया। दुर्भाग्य की बात यह हुई कि अंग्रेज़ हिंदुओं-मुसलमानों की उस एकता को, जो 1857 के विद्रोह के समय पैदा हुई थी, अपनी कूटनीतिक चालों से भंग करने में सफल हो गये। 1885 में जब इण्डियन नेशनल कांग्रेस की स्थापना हुई, तब तक हिंदू और मुस्लिम समाज की फाँक चिंता जनक रूप ले चुकी थी। यह हिंदी-उर्दू क्षेत्र की सबसे दुर्भाग्यपूर्ण नियति थी।

**SubQuestion No : 16**

Q.16 हिंदी-उर्दू क्षेत्र के लिए सबसे दुर्भाग्यपूर्ण नियति निम्न में से थी।

- Ans  A. हिंदू-मुस्लिम एकता को तोड़ने में अंग्रेज़ों को सफलता प्राप्त होना  
 B. 1857 के विद्रोह के पश्चात् सरकारी दमन  
 C. सर सैयद अहमद द्वारा मुस्लिम समाज के उत्थान के लिए कार्य  
 D. सामाजिक पुनरुत्थान आंदोलन

Question ID : 1841223191

**Comprehension:**

दिए गए गद्यांश के आधार पर प्रश्न के उत्तर दीजिए।

हिंदी क्षेत्र में पुनर्जागरण की चिंगारी औपनिवेशिक शोषण और दमन के प्रति असंतोष से फूटी, जिसका प्रतिफलन 1857 का औपनिवेशिक शासन से विद्रोह था। इतिहासकारों ने स्वीकार किया है कि यद्यपि इस विद्रोह के ज़ाहिर नेता ब्रिटिश शासन से असंतुष्ट भारतीय सामंत थे, पर उन्हें किसानों, सैनिकों, साधु-संतों और मुल्ला-मौलवियों का प्रत्यक्ष – अप्रत्यक्ष दोनों प्रकार का समर्थन प्राप्त था। यह विद्रोह अमानुषिक निर्दयता के साथ कुचल दिया गया, पर उसकी चिंगारी दमन की राख के नीचे बची रह गयी। इस राजनीतिक विद्रोह के साथ ही बंगाल का सामाजिक पुनर्जागरण हिंदी क्षेत्र में पहुँचा। बंगाल नवजागरण के एक प्रमुख नेता केशवचंद्र सेन ने पंजाब को और आर्य समाज के संस्थापक स्वामी दयानंद सरस्वती ने हिंदी क्षेत्र को सामाजिक जागरण-आंदोलन के लिए चुना। ठीक इसी समय सर सैयद अहमद और अब्दुल्ला साहब आदि ने मुस्लिम समाज में 'नयी रौशनी' फैलाने का आंदोलन शुरू किया। दुर्भाग्य की बात यह हुई कि अंग्रेज़ हिंदुओं-मुसलमानों की उस एकता को, जो 1857 के विद्रोह के समय पैदा हुई थी, अपनी कूटनीतिक चालों से भंग करने में सफल हो गये। 1885 में जब इण्डियन नेशनल कांग्रेस की स्थापना हुई, तब तक हिंदू और मुस्लिम समाज की फाँक चिंता जनक रूप ले चुकी थी। यह हिंदी-उर्दू क्षेत्र की सबसे दुर्भाग्यपूर्ण नियति थी।

**SubQuestion No : 17**

Q.17 हिंदी क्षेत्र में पुनर्जागरण के उद्भव का निम्न में से क्या कारण था?

- Ans  A. औपनिवेशिक शोषण एवं दमन  
 B. हिंदू-मुस्लिम एकता  
 C. इण्डियन नेशनल कांग्रेस की स्थापना  
 D. 1857 का विद्रोह

Question ID : 1841223190

**Comprehension:**

दिए गए गद्यांश के आधार पर प्रश्न के उत्तर दीजिए।

हिंदी क्षेत्र में पुनर्जागरण की चिंगारी औपनिवेशिक शोषण और दमन के प्रति असंतोष से फूटी, जिसका प्रतिफलन 1857 का औपनिवेशिक शासन से विद्रोह था। इतिहासकारों ने स्वीकार किया है कि यद्यपि इस विद्रोह के ज़ाहिर नेता ब्रिटिश शासन से असंतुष्ट भारतीय सामंत थे, पर उन्हें किसानों, सैनिकों, साधु-संतों और मुल्ला-मौलवियों का प्रत्यक्ष – अप्रत्यक्ष दोनों प्रकार का समर्थन प्राप्त था। यह विद्रोह अमानुषिक निर्दयता के साथ कुचल दिया गया, पर उसकी चिंगारी दमन की राख के नीचे बची रह गयी। इस राजनीतिक विद्रोह के साथ ही बंगाल का सामाजिक पुनर्जागरण हिंदी क्षेत्र में पहुँचा। बंगाल नवजागरण के एक प्रमुख नेता केशवचंद्र सेन ने पंजाब को और आर्य समाज के संस्थापक स्वामी दयानंद सरस्वती ने हिंदी क्षेत्र को सामाजिक जागरण-आंदोलन के लिए चुना। ठीक इसी समय सर सैयद अहमद और अब्दुल्ला साहब आदि ने मुस्लिम समाज में 'नयी रौशनी' फैलाने का आंदोलन शुरू किया। दुर्भाग्य की बात यह हुई कि अंग्रेज़ हिंदुओं-मुसलमानों की उस एकता को, जो 1857 के विद्रोह के समय पैदा हुई थी, अपनी कूटनीतिक चालों से भंग करने में सफल हो गये। 1885 में जब इण्डियन नेशनल कांग्रेस की स्थापना हुई, तब तक हिंदू और मुस्लिम समाज की फाँक चिंता जनक रूप ले चुकी थी। यह हिंदी-उर्दू क्षेत्र की सबसे दुर्भाग्यपूर्ण नियति थी।

**SubQuestion No : 18**

Q.18 इण्डियन नेशनल कांग्रेस की स्थापना कब हुई?

- Ans  A. 1885  
 B. 1957  
 C. 1985  
 D. 1857

Question ID : 1841223189

**Comprehension:**

दिए गए गद्यांश के आधार पर प्रश्न के उत्तर दीजिए।

हिंदी क्षेत्र में पुनर्जागरण की चिंगारी औपनिवेशिक शोषण और दमन के प्रति असंतोष से फूटी, जिसका प्रतिफलन 1857 का औपनिवेशिक शासन से विद्रोह था। इतिहासकारों ने स्वीकार किया है कि यद्यपि इस विद्रोह के ज़ाहिर नेता ब्रिटिश शासन से असंतुष्ट भारतीय सामंत थे, पर उन्हें किसानों, सैनिकों, साधु-संतों और मुल्ला-मौलवियों का प्रत्यक्ष – अप्रत्यक्ष दोनों प्रकार का समर्थन प्राप्त था। यह विद्रोह अमानुषिक निर्दयता के साथ कुचल दिया गया, पर उसकी चिंगारी दमन की राख के नीचे बची रह गयी। इस राजनीतिक विद्रोह के साथ ही बंगाल का सामाजिक पुनर्जागरण हिंदी क्षेत्र में पहुँचा। बंगाल नवजागरण के एक प्रमुख नेता केशवचंद्र सेन ने पंजाब को और आर्य समाज के संस्थापक स्वामी दयानंद सरस्वती ने हिंदी क्षेत्र को सामाजिक जागरण-आंदोलन के लिए चुना। ठीक इसी समय सर सैयद अहमद और अब्दुल्ला साहब आदि ने मुस्लिम समाज में 'नयी रौशनी' फैलाने का आंदोलन शुरू किया। दुर्भाग्य की बात यह हुई कि अंग्रेज़ हिंदुओं-मुसलमानों की उस एकता को, जो 1857 के विद्रोह के समय पैदा हुई थी, अपनी कूटनीतिक चालों से भंग करने में सफल हो गये। 1885 में जब इण्डियन नेशनल कांग्रेस की स्थापना हुई, तब तक हिंदू और मुस्लिम समाज की फाँक चिंता जनक रूप ले चुकी थी। यह हिंदी-उर्दू क्षेत्र की सबसे दुर्भाग्यपूर्ण नियति थी।

**SubQuestion No : 19**

Q.19 निम्न में से कौन-सा शब्द युग्म अन्य से भिन्न है?

- Ans  A. जागरण - आंदोलन  
 B. हिंदू - मुसलमान  
 C. प्रत्यक्ष - अप्रत्यक्ष  
 D. मुल्ला - मौलवी

Question ID : 1841223188

**Comprehension:**

दिए गए गद्यांश के आधार पर प्रश्न के उत्तर दीजिए।

हिंदी क्षेत्र में पुनर्जागरण की चिंगारी औपनिवेशिक शोषण और दमन के प्रति असंतोष से फूटी, जिसका प्रतिफलन 1857 का औपनिवेशिक शासन से विद्रोह था। इतिहासकारों ने स्वीकार किया है कि यद्यपि इस विद्रोह के ज़ाहिर नेता ब्रिटिश शासन से असंतुष्ट भारतीय सामंत थे, पर उन्हें किसानों, सैनिकों, साधु-संतों और मुल्ला-मौलवियों का प्रत्यक्ष – अप्रत्यक्ष दोनों प्रकार का समर्थन प्राप्त था। यह विद्रोह अमानुषिक निर्दयता के साथ कुचल दिया गया, पर उसकी चिंगारी दमन की राख के नीचे बची रह गयी। इस राजनीतिक विद्रोह के साथ ही बंगाल का सामाजिक पुनर्जागरण हिंदी क्षेत्र में पहुँचा। बंगाल नवजागरण के एक प्रमुख नेता केशवचंद्र सेन ने पंजाब को और आर्य समाज के संस्थापक स्वामी दयानंद सरस्वती ने हिंदी क्षेत्र को सामाजिक जागरण-आंदोलन के लिए चुना। ठीक इसी समय सर सैयद अहमद और अब्दुल्ला साहब आदि ने मुस्लिम समाज में 'नयी रौशनी' फैलाने का आंदोलन शुरू किया। दुर्भाग्य की बात यह हुई कि अंग्रेज़ हिंदुओं-मुसलमानों की उस एकता को, जो 1857 के विद्रोह के समय पैदा हुई थी, अपनी कूटनीतिक चालों से भंग करने में सफल हो गये। 1885 में जब इण्डियन नेशनल कांग्रेस की स्थापना हुई, तब तक हिंदू और मुस्लिम समाज की फाँक चिंता जनक रूप ले चुकी थी। यह हिंदी-उर्दू क्षेत्र की सबसे दुर्भाग्यपूर्ण नियति थी।

SubQuestion No : 20

Q.20 हिंदी क्षेत्र में पुनर्जागरण के संदर्भ में असत्य है-

- Ans
- A. सर सैयद और अब्दुल्ला साहब जैसे सुधारकों ने मुस्लिम समाज में नयी रौशनी फैलाई।
  - B. पुनर्जागरण का प्रतिफलन 1857 के विद्रोह के रूप में हुआ।
  - C. केशवचंद्र सेन ने बंगाल को और स्वामी दयानंद सरस्वती ने पंजाब को सामाजिक जागरण-आंदोलन के लिए चुना।
  - D. हिंदी क्षेत्र में पुनर्जागरण बंगाल के सामाजिक पुनर्जागरण का ही प्रसार था।

Question ID : 1841223192

Section : Discipline1

Q.1 How many Number of Resistances are used in a Wheatstone Bridge?

- Ans
- A. 3
  - B. 5
  - C. 4
  - D. 6

Question ID : 1841223194

Q.2 Calculate the equivalent weight of  $\text{Na}_2\text{CO}_3$  when it is titrated against HCl in presence of  $\text{C}_{20}\text{H}_{14}\text{O}_4$ .

- Ans
- A. 106
  - B. 53
  - C. 26.5
  - D. 212

Question ID : 1841223196

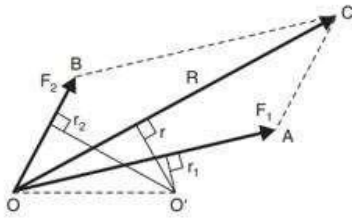
Q.3 By using Searle's apparatus, the coefficient of thermal conductivity is determined for \_\_\_\_\_.

- Ans
- A. Bad Conductors
  - B. Good Conductors
  - C. Nontransmitter
  - D. Insulator

Question ID : 1841223195



Q.4 According to Varignon's Theorem, what is  $r_1$  in the below shown figure.



- Ans
- A. Perpendicular distance between  $F_1$  and  $O'$ .
  - B. Perpendicular distance between  $F_2$  and  $O'$ .
  - C. Perpendicular distance between  $R$  and  $O'$ .
  - D. Parallel distance between  $F_1$  and  $O'$ .

Question ID : 1841223202

Q.5 Ohm's law is not applicable for non-metallic conductor like \_\_\_\_\_.

- Ans
- A. Silver
  - B. Copper
  - C. Silicon carbide
  - D. Tin

Question ID : 1841223209

Q.6 Thevenin's Theorem states that, any linear active Double terminal network containing voltage and resistance sources can be replaced by a \_\_\_\_\_ Voltage source in \_\_\_\_\_ with \_\_\_\_\_ resistance.

- Ans
- A. Single, Parallel, Single
  - B. Single, Parallel, Two
  - C. Single, Series, Single
  - D. Single, Series, Two

Question ID : 1841223210

Q.7 "The magnitude of the electrostatic force of attraction or repulsion between two point charges is directly proportional to the product of the magnitudes of charges and inversely proportional to the square of the distance between them" is stated in \_\_\_\_\_.

- Ans
- A. Ampere's Law
  - B. Coulomb's Law
  - C. Newton's Law
  - D. Faraday's Law

Question ID : 1841223193



Q.8 The centre of gravity of a semicircle of radius  $r$  is located at a distance of \_\_\_\_\_ from the axis passing through the diameter.

Ans

A.  $\frac{4r}{\pi}$

B.  $\frac{2r}{3\pi}$

C.  $\frac{4r}{3\pi}$

D.  $\frac{r}{3\pi}$

Question ID : 1841223203

Q.9 Among the two series given : Series 1 : 1, 2, 4, 8, \_\_\_; and Series 2 : 256, 128, \_\_\_; the  $P^{\text{th}}$  term of both series are equal. Identify the value of P?"

Ans

A. 3

B. 4

C. 6

D. 5

Question ID : 1841223198

Q.10 The cofactor  $C_{ij}$  of the element  $a_{ij}$  in the determinant  $\Delta$  is defined to be  $(-1)^{i+j}M_{ij}$ , where  $M_{ij}$  is the \_\_\_\_\_  $a_{ij}$ .

Ans

A. Multiple of the Element

B. Major of the element

C. Matrices of the element

D. Minor of the element

Question ID : 1841223199

Q.11 1 Watt = \_\_\_\_\_ Joule / second

Ans

A. 10

B. 1

C. 100

D. 1000

Question ID : 1841223207

Q.12 According to theorem of parallel axis , which of the following equation is correct

(Where  $I_{AB}$  = Moment of inertia of the area about an axis AB, parallel to the centroidal axis.

$I_G$  = Moment of Inertia of the area about the centroidal axis passing through centroid G

a = Area of the section, and

h = Perpendicular distance between centroidal axis and the axis passing through AB.)

- Ans
- A.  $I_G = I_{AB} \times ah^2$
  - B.  $I_{AB} = I_G - ah^2$
  - C.  $I_{AB} = I_G + ah^2$
  - D.  $I_G = I_{AB} + ah^2$

Question ID : 1841223204

Q.13 \_\_\_\_\_ states, "Every body continues in a state of rest or uniform motion in a straight line unless it is compelled to change that state by some external force acting on it."

- Ans
- A. Newton's Second Law of Motion
  - B. Newton's Law of Gravitation
  - C. Newton's First Law of Motion
  - D. Newton's Third Law of Motion

Question ID : 1841223205

Q.14 The velocity ratio of two pulleys connected by an open or crossed belt is:

- Ans
- A. directly proportional to their diameters
  - B. inversely proportional to their diameters
  - C. inversely proportional to the square of their diameters
  - D. directly proportional to the square of their diameters

Question ID : 1841223212

Q.15 For the motion of a body of mass  $m$  along a circular path of radius  $r$ , with a uniform speed  $v$ , the expression for centrifugal force is given by:

- Ans
- A.  $\frac{mV}{r}$
  - B.  $\frac{mV^2}{r}$
  - C.  $\frac{m^2V^2}{r}$
  - D.  $\frac{mV^2}{r^2}$

Question ID : 1841223206

Q.16 A body of weight 200 Newtons is placed on a rough horizontal plane. Determine the co-efficient of friction if a horizontal force of 120 Newtons just causes the body to slide over the horizontal plane.

- Ans  A. 0.6  
 B. 1.2  
 C. 1.6  
 D. 1.0

Question ID : 1841223208

Q.17 The rate of discharge of seepage water through a porous medium per unit area of void space perpendicular to the direction of flow is known as \_\_\_\_\_.

- Ans  A. Spectral Velocity  
 B. Critical Velocity  
 C. Discharge Velocity  
 D. Seepage Velocity

Question ID : 1841223211

Q.18 \_\_\_\_\_ is determined by using the law of parallelogram of forces, between two forces acting at a point in plane .

- Ans  A. Displacement  
 B. Moment of Inertia  
 C. Load  
 D. Resultant Force

Question ID : 1841223201

Q.19 If the rows and columns of a matrix are interchanged, then it is called as \_\_\_\_\_.

- Ans  A. Transpose of a Matrix  
 B. Orthogonal Matrix  
 C. Skew Symmetric Matrix  
 D. Triangular Matrix

Question ID : 1841223200

Q.20 According to IS : 1680 – 1982, The concentration of total dissolved solids in boiler water should be \_\_\_\_\_ for Boilers operating up to 2.0 MN/m<sup>2</sup>.

- Ans  A. 4500 mg/l  
 B. 3500 mg/l  
 C. 6500 mg/l  
 D. 5500 mg/l

Question ID : 1841223197

Section : Discipline2

Q.1 Find the actual discharge and actual velocity of flow through an Orifice 100 mm diameter discharging water under a head of 10 meters. take Coefficient of discharge ( $C_d$ ) = 0.66 and Coefficient of velocity ( $C_v$ ) = 0.96

- Ans
- A.  $0.063 \text{ m}^3/\text{sec}$  and  $12.447 \text{ m/s}$
  - B.  $0.053 \text{ m}^3/\text{sec}$  and  $11.447 \text{ m/s}$
  - C.  $0.083 \text{ m}^3/\text{sec}$  and  $14.447 \text{ m/s}$
  - D.  $0.073 \text{ m}^3/\text{sec}$  and  $13.447 \text{ m/s}$

Question ID : 1841223230

Q.2 \_\_\_\_\_ are used to connect two non-parallel and non-intersecting shafts.

- Ans
- A. Spur Gears
  - B. Worm Gears
  - C. Bevel Gears
  - D. Spiral Gears

Question ID : 1841223214

Q.3 Method of applying water to the soil surface in the form of rain is \_\_\_\_\_.

- Ans
- A. Trickle Irrigation
  - B. Sprinkler Irrigation
  - C. Furrow method
  - D. Border irrigation

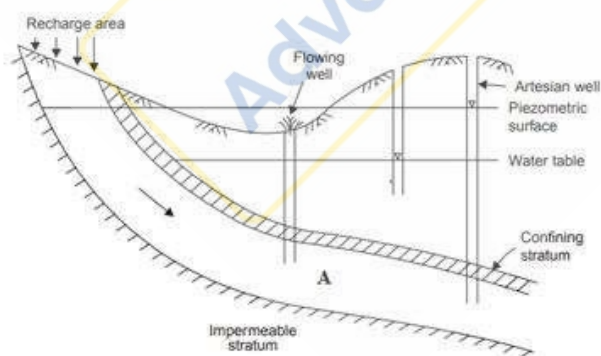
Question ID : 1841223221

Q.4 The horizontal distance from the centre of a well to the practical limit of the cone of depression in an aquifer is known as the \_\_\_\_\_ of the well.

- Ans
- A. Radius of Influence
  - B. Center of Influence
  - C. Diameter of Influence
  - D. Depth of Influence

Question ID : 1841223224

Q.5 Identify the type of aquifer indicated by letter A in the figure below:



- Ans
- A. Confined aquifer
  - B. Un-Confined aquifer
  - C. Artesian aquifer
  - D. Perched aquifer

Question ID : 1841223223

Q.6 When mixed with \_\_\_\_\_, Anhydrous cement compounds react with each other to form hydrated compounds.

- Ans  A. Water  
 B. Petrol  
 C. Kersone  
 D. Mercury

Question ID : 1841223232

Q.7 According to Pascals law, The intensity of pressure for a fluid at rest is \_\_\_\_\_ in all directions.

- Ans  A. Zero  
 B. Equal  
 C. Higher  
 D. Lesser

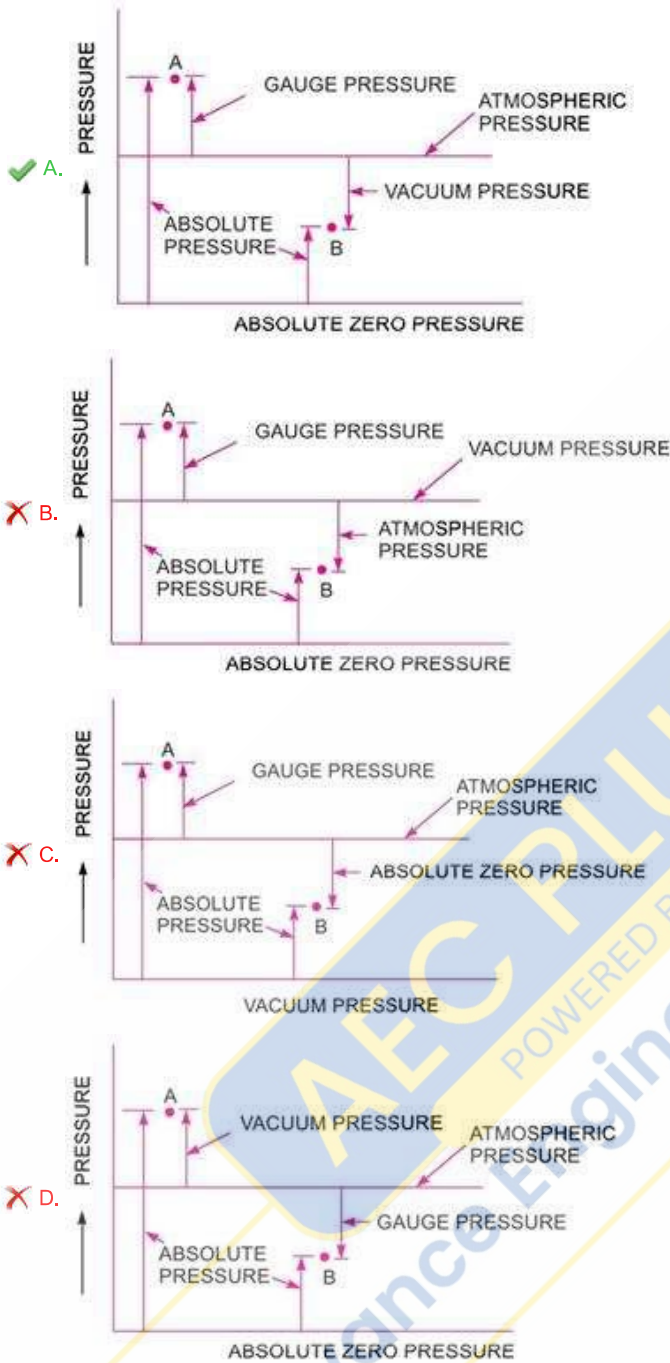
Question ID : 1841223227

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Q.8 Among the following figures identify the Correct one, Relationship between Absolute, Gauge, Atmospheric and vacuum Pressures.

Ans



Question ID : 1841223228

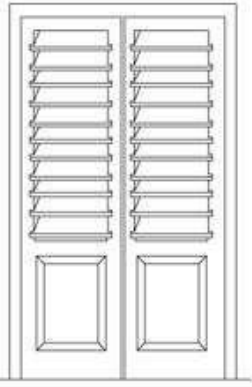
Q.9 Calculate the specific weight of a one litre of a liquid which weighs 9N.

- Ans
- A.  $9 \text{ N/m}^3$
  - B.  $900 \text{ N/m}^3$
  - C.  $9000 \text{ N/m}^3$
  - D.  $90 \text{ N/m}^3$

Question ID : 1841223226



Q.10 Identify the door type shown in the below figure.



- Ans
- A. Flush Doors
  - B. Ledged Doors
  - C. Louvered Doors
  - D. Glazed Doors

Question ID : 1841223218

Q.11 Intensity of irrigation is defined as the percentage of CCA , which is proposed to be annually irrigated. What is meant by CCA in the above definition?

- Ans
- A. Crop Command Area
  - B. Culturable Common Area
  - C. Culturable Command Area
  - D. Crop Common Area

Question ID : 1841223222

Q.12 According to Indian standards, Shallow foundations are laid normally to depth of \_\_\_\_\_.

- Ans
- A. 3 meters
  - B. 4.5 meters
  - C. 7.5 meters
  - D. 6 meters

Question ID : 1841223215

Q.13 What is the chezy's formula for steady and uniform flow in rigid boundary open channels?

- Ans
- A.  $U = C \sqrt{RS}$
  - B.  $U = \frac{1}{n} R^{2/3} S^{1/2}$
  - C.  $\frac{U}{u_*} = 5.75 \log \left( \frac{u_* R}{\nu} \right) + 3.25$
  - D.  $\frac{U}{u_*} = 5.75 \log (R/k_s) + 6.25$

Question ID : 1841223225



Q.14 longitudinal horizontal members parallel to the wall used in scaffolding is called as:

- Ans  A. Putlogs  
 B. Stringers  
 C. Planks  
 D. Standards

Question ID : 1841223219

Q.15 The minimum width of tread without nosing shall be \_\_\_\_\_ for residential buildings.

- Ans  A. 150 mm  
 B. 350 mm  
 C. 250 mm  
 D. 450 mm

Question ID : 1841223220

Q.16 Usual allowance for camber in the intrados in the flat arch is \_\_\_\_\_.

- Ans  A. 1 / 50 of the span  
 B. 1 / 100 of the span  
 C. 1 / 200 of the span  
 D. 1 / 150 of the span

Question ID : 1841223217

Q.17 Specifications for vicat apparatus used to find of initial setting time of cement is \_\_\_\_\_.

- Ans  A. IS 5513 (1996)  
 B. IS 5514 (1996)  
 C. IS 5512 (1996)  
 D. IS 5511 (1996)

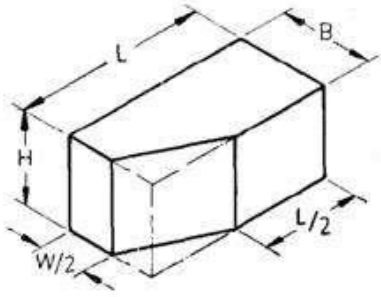
Question ID : 1841223231

Q.18 are the devices used to engage or disengage two rotating machine components as and when desired.

- Ans  A. Clutches  
 B. Brake  
 C. Shaft  
 D. Crank

Question ID : 1841223213

Q.19



The figure above shown is \_\_\_\_\_.

- Ans
- A. Queen Closer
  - B. King Closer
  - C. Bull Nose Mitre
  - D. Snap header Closer

Question ID : 1841223216

Q.20 Reynolds Number for Laminar Flow in Pipes is \_\_\_\_\_.

- Ans
- A. Between 2000 and 4000
  - B. Less than 2000
  - C. Greater than 2000
  - D. Greater than 4000

Question ID : 1841223229

Section : Discipline3

Q.1 What is the trade name for Aluminium sulphate?

- Ans
- A. Green vitriol
  - B. Alfloc
  - C. Soda alum
  - D. Filter alum

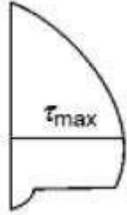
Question ID : 1841223248

Q.2 Identify the correct Shear Stress distribution figure for "L" Section.

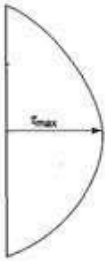


Ans

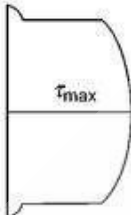
✓ A.



✗ B.



✗ C.



✗ D.



Question ID : 1841223240

Q.3 In \_\_\_\_\_ system, the water in the conveying section flows freely due to gravity.

- Ans
- ✗ A. Pressure
  - ✗ B. Combined
  - ✗ C. Pumping
  - ✓ D. Free Flow

Question ID : 1841223246

Q.4 What is the minimum specified thickness of steel pipes of 1000 to 1200 mm used in the water distribution layouts?

- Ans
- ✗ A. 5 mm
  - ✗ B. 6 mm
  - ✓ C. 8 mm
  - ✗ D. 7 mm

Question ID : 1841223250

Q.5 Unit for Torque is \_\_\_\_\_.

- Ans
- A. N – m
  - B. N/m
  - C. N – m<sup>2</sup>
  - D. N/m<sup>2</sup>

Question ID : 1841223241

Q.6 COD stands for:

- Ans
- A. Chlorine Oxygen Demand
  - B. Calcium Oxygen Demand
  - C. Clean Oxygen Demand
  - D. Chemical Oxygen Demand

Question ID : 1841223252

Q.7 According to IS : 2386 ( Part I ) – 1963, to conduct Sieve analysis, the minimum weight of the sample of 20 mm size aggregate to be taken is:

- Ans
- A. 5 kg
  - B. 10 kg
  - C. 1 kg
  - D. 25 kg

Question ID : 1841223233

Q.8 Among the following which is NOT a out put device.

- Ans
- A. Printer
  - B. Plotter
  - C. Monitor
  - D. Key board

Question ID : 1841223244

Q.9 An admixture which delays the setting of cement paste is \_\_\_\_\_.

- Ans
- A. Accelerator
  - B. Retarder
  - C. Water Reducing Admixture
  - D. Air-Entraining Admixtures

Question ID : 1841223237

Q.10 As per Indian standards 10262 - 2009, maximum water Content required to prepare concrete with 10 mm nominal maximum size aggregate is \_\_\_\_\_.

- Ans
- A. 208 kgs/m<sup>3</sup>
  - B. 186 kgs/m<sup>3</sup>
  - C. 165 kgs/m<sup>3</sup>
  - D. 224 kgs/m<sup>3</sup>

Question ID : 1841223234

Q.11 According to CPHEEO, to avoid erosion due to sand and other gritty material carried in the sewer, the maximum velocity should not exceed \_\_\_\_\_.

- Ans  A. 3.0 m/S  
 B. 4.5 m/S  
 C. 6.0 m/S  
 D. 1.5 m/S

Question ID : 1841223251

Q.12 \_\_\_\_\_ is used for delay in the setting time of concrete.

- Ans  A. Air-Entraining Admixtures  
 B. Accelerator  
 C. Water Reducing Admixture  
 D. Retarder

Question ID : 1841223235

Q.13 Ratio of Lateral strain to longitudinal strain is \_\_\_\_\_.

- Ans  A. Volumetric Strain  
 B. Slenderness Ratio  
 C. Radius of Gyration  
 D. Poisson's Ratio

Question ID : 1841223238

Q.14 The treatment by which the disease producing bacteria and other micro-organisms present in water are killed is known as \_\_\_\_\_.

- Ans  A. Sedimentation  
 B. Disinfection  
 C. Water Softening  
 D. Filtration

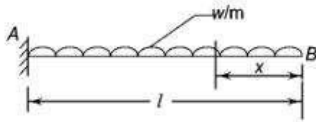
Question ID : 1841223249

Q.15 The quantity of water required to be stored in the reservoir for equalising fluctuating demand against constant supply is known as:

- Ans  A. The Fire Storage  
 B. The Balancing Storage  
 C. The Breakdown Storage  
 D. The Total Reservoir Storage

Question ID : 1841223245

Q.16 For the below given figure, find out the Shear Force and Bending Moment at X.



- Ans
- A.  $wX^2, -wX^2/2$
  - B.  $wX^2, -wX/2$
  - C.  $wX, -wX/2$
  - D.  $wX, -wX^2/2$

Question ID : 1841223239

Q.17 pH value for drinking water is: \_\_\_\_\_

- Ans
- A. 4.5 to 6.5
  - B. 8.5 to 10.5
  - C. 10.5 to 12.5
  - D. 6.5 to 8.5

Question ID : 1841223247

Q.18 \_\_\_\_\_ shape of aggregate gives good workability.

- Ans
- A. Rounded
  - B. Angular
  - C. Flaky
  - D. Elongated

Question ID : 1841223236

Q.19 As per Euler's theory on columns, the Critical Load for Columns with Hinged Ends is given by:

- Ans
- A.  $P_{cr} = \frac{2\pi^2 EI}{l^2}$
  - B.  $P_{cr} = \frac{4\pi^2 EI}{l}$
  - C.  $P_{cr} = \frac{\pi^2 EI}{4l^2}$
  - D.  $P_{cr} = \frac{\pi^2 EI}{l^2}$

Question ID : 1841223242

Q.20 Among the following, which method is "NOT" used for analysing Truss.

- Ans
- A. Method of Sections
  - B. Method of Joints
  - C. Macaulay's Method
  - D. Graphical Method

Question ID : 1841223243



Section : Discipline4

Q.1 \_\_\_\_\_ encompass the personal and corporate standards of behavior expected by professionals.

- Ans
- A. General Ethics
  - B. Punctual Ethics
  - C. Global Ethics
  - D. Professional Ethics

Question ID : 1841223271

Q.2 A three-hinged arch has hinged supports at each abutment. The external restraint provided by both the abutments is \_\_\_\_\_.

- Ans
- A. One
  - B. Four
  - C. Two
  - D. Three

Question ID : 1841223267

Q.3 In AUTOCAD, the command used to draw Parallellines or Curves is:

- Ans
- A. Copy
  - B. Fillet
  - C. Offset
  - D. Paste

Question ID : 1841223272

Q.4 \_\_\_\_\_ is defined as a set of international standards on quality management and quality assurance developed to help companies effectively document the quality system elements needed to maintain an efficient quality system.

- Ans
- A. ISO 8000
  - B. ISO 7000
  - C. ISO 6000
  - D. ISO 9000

Question ID : 1841223270

Q.5 According to the classification of building limes in IS 712 : 1984, Magnesium/dolomitic lime used for finishing coat in plastering, white washing, etc. comes under \_\_\_\_\_ category.

- Ans
- A. Class A
  - B. Class B
  - C. Class C
  - D. Class D

Question ID : 1841223256

Q.6 In moment distribution method of structural analysis, the ratio of the moment induced at fixed end to the moment required at free end is known as:

- Ans
- A. Stiffness Factor
  - B. Distribution Factor
  - C. Moment Factor
  - D. Carry-Over Factor

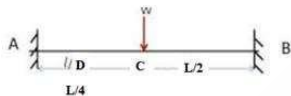
Question ID : 1841223266

Q.7 What is the Indian standard for "Safety code for handling and storage of building materials".

- Ans
- A. IS 7068 (1975)
  - B. IS 7868 (1975)
  - C. IS 7969 (1975)
  - D. IS 7069 (1975)

Question ID : 1841223268

Q.8 The maximum deflection occurs in a fixed beam with point load at center as shown in figure is \_\_\_\_\_.



- Ans
- A. At Point "D"
  - B. At Point "B"
  - C. At Point "A"
  - D. At Point "C"

Question ID : 1841223265

Q.9 \_\_\_\_\_ soils are formed by the transportation and deposition of wind.

- Ans
- A. Aeolian
  - B. Alluvial
  - C. Glacial
  - D. lacustrine

Question ID : 1841223258

Q.10 According to IS : 1077 : 1992, non-modular size of the bricks is \_\_\_\_\_.

- Ans
- A.  $230 \times 110 \times 70$  mm
  - B.  $190 \times 90 \times 90$  mm
  - C.  $230 \times 110 \times 40$  mm
  - D.  $190 \times 90 \times 40$  mm

Question ID : 1841223254

Q.11 In \_\_\_\_\_ type of soils, more than half the coarse fraction is larger than 4.75-mm IS Sieve size.

- Ans
- A. Sand
  - B. Clay
  - C. Silt
  - D. Gravel

Question ID : 1841223260

Q.12 As per IS : 2720 (Part XXX) – 1980, the vane in Vane shear test for the measurement of shear strength of cohesive soils shall consist of four blades each fixed at \_\_\_\_\_ to the adjacent blades.

- Ans
- A.  $45^\circ$
  - B.  $30^\circ$
  - C.  $90^\circ$
  - D.  $60^\circ$

Question ID : 1841223262

Q.13 Among the different types of rocks given under options, identify the igneous rock.

- Ans
- A. Sand Stone
  - B. Granite
  - C. Lime Stone
  - D. Slate

Question ID : 1841223253

Q.14 As per IS : 12269 – 2013, what is the Maximum Insoluble residue (as percent by mass) for Ordinary Portland Cement, 53 Grade?

- Ans
- A. 2.0
  - B. 4.0
  - C. 6.0
  - D. 8.0

Question ID : 1841223255

Q.15 What type of frame it will be, if it has 3 joints and 4 members?

- Ans
- A. Redundant Frame
  - B. Deficient Frame
  - C. Efficient Frame
  - D. Perfect Frame

Question ID : 1841223264

Q.16 A compiler translates a high-level program into a low-level program.

- Ans
- A. Compiler
  - B. Linkers
  - C. Assembler
  - D. SQL

Question ID : 1841223263

Q.17 The mechanism of one dimensional consolidation in soils was proposed by:

- Ans
- A. Darcy
  - B. Skempton
  - C. Terzaghi
  - D. Taylor

Question ID : 1841223261

Q.18 According to Workmen's compensation act 1923, Amount of compenstation where death results from the injury is an amount equal to \_\_\_\_\_ of the monthly wages of the deceased workman multiplied by the relvant factor.

- Ans
- A. 60%
  - B. 20%
  - C. 40%
  - D. 80%

Question ID : 1841223269

Q.19 The ratio of the volume of air space to the volume of solids in a soil mass is called as \_\_\_\_\_.

- Ans
- A. Air-Space Ratio
  - B. Air Void Ratio
  - C. Critical Void Ratio
  - D. California Bearing Ratio

Question ID : 1841223259

Q.20 According to IS : 79 - 1975, the Acid value of Type – 1, linseed stand oil for paints is:

- Ans
- A. 5
  - B. 6
  - C. 4
  - D. 3

Question ID : 1841223257

Section : Discipline5

Q.1 Modulus of Elasticity of structural steel is \_\_\_\_\_.

- Ans
- A.  $2.5 \times 10^5 \text{ N/mm}^2$
  - B.  $2.5 \times 10^6 \text{ N/mm}^2$
  - C.  $2.0 \times 10^5 \text{ N/mm}^2$
  - D.  $2.0 \times 10^6 \text{ N/mm}^2$

Question ID : 1841223280

Q.2 In AUTOCAD, the command that is made use of to draw internal walls during house plan development is:

- Ans
- A. Dline
  - B. Copy
  - C. Snap
  - D. Offset

Question ID : 1841223273

Q.3 What is the Imperfection factor for buckling class "A & B"

- Ans  A. 0.54 & 0.67  
 B. 0.32 & 0.45  
 C. 0.21 & 0.34  
 D. 0.43 & 0.56

Question ID : 1841223284

Q.4 The value of a property at the end of its utility period without dismantling is known as:

- Ans  A. Book Value  
 B. Salvage Value  
 C. Market Value  
 D. Scrap Value

Question ID : 1841223291

Q.5 According to IRC : 37 - 2001, total pavement thickness for cumulative traffic of 2 msa for a CBR value of 6% is \_\_\_\_\_.

- Ans  A. 350 mm  
 B. 450 mm  
 C. 500 mm  
 D. 615 mm

Question ID : 1841223277

Q.6 In the \_\_\_\_\_ type of split switch, the tongue rail does not end at the heel of the switch, but extends further and is rigidly connected.

- Ans  A. Fixed Heel  
 B. Undercut Switch  
 C. Loose Heel  
 D. Overriding Switch

Question ID : 1841223278

Q.7 Find out the quantity of earth work excavation for foundation whose centre line length is 20 m, width/depth ratio of the trench is 0.5 and depth is 1.00 meters.

- Ans  A. 15.00 m<sup>3</sup>  
 B. 12.00 m<sup>3</sup>  
 C. 10.00 m<sup>3</sup>  
 D. 13.00 m<sup>3</sup>

Question ID : 1841223287

Q.8 What is the effective length of a prismatic compression member, whose boundary conditions are "Translation & Rotation are Restrained at One end and Translation is Free & Rotation is Restrained at the other end"

- Ans  A. 2.0 L  
 B. 1.2 L  
 C. 0.8 L  
 D. 1.0 L

Question ID : 1841223283

Q.9 If the price of the steel is ₹7,850.00 per Ton used in RCC works. Then what is the total cost of steel for 100 Quintal.

- Ans
- A. ₹785.00
  - B. ₹7,85,000.00
  - C. ₹7,850.00
  - D. ₹78,500.00

Question ID : 1841223290

Q.10 For multiple riveted connections, a service bolt shall be provided in every \_\_\_\_\_ hole.

- Ans
- A. Third or Fourth
  - B. Ninth or Tenth
  - C. Fifth or Sixth
  - D. Seventh or Eighth

Question ID : 1841223281

Q.11 Roller bearings have been used in \_\_\_\_\_.

- Ans
- A. Not Suitable for Both Steel and Concrete Bridges
  - B. Only Concrete Bridges, Not in Steel Bridges
  - C. Both Steel and Concrete Bridges
  - D. Only Steel Bridges, Not in Concrete Bridges

Question ID : 1841223279

Q.12 Walls of one brick thick and less shall each be measured separately in:

- Ans
- A. Number
  - B. Square Meter
  - C. Cubic Meter
  - D. Running Meter

Question ID : 1841223286

Q.13 According to Nagpur road plan, IRC has classified the Indian roads into \_\_\_\_\_ categories.

- Ans
- A. 6
  - B. 3
  - C. 5
  - D. 7

Question ID : 1841223274

Q.14 The Safe Stopping Sight Distance value recommended by IRC for 60 km/h speed is:

- Ans
- A. 80 meters
  - B. 20 meters
  - C. 40 meters
  - D. 60 meters

Question ID : 1841223275



Q.15 An old residential structure excluding the price of land has been bought by a person at a price of ₹30,000 /-. Expecting the life of the Structure as 20 years, what is the amount of annual sinking fund at 4% interest, if the scrap value of the building is taken as 10% of the cost of purchase.

- Ans  A. 907.20  
 B. 917.20  
 C. 920.30  
 D. 900.70

Question ID : 1841223292

Q.16 Find the quantity of cement mortar of 1 : 6 required for 12 mm plastering of two walls, each of them having length = 7.80 meters and height = 1.25 meters?

- Ans  A. 17.50 m<sup>2</sup>  
 B. 18.50 m<sup>2</sup>  
 C. 20.50<sup>2</sup>  
 D. 19.50 m<sup>2</sup>

Question ID : 1841223289

Q.17 Number of Spheres as Abrasive charge to be used for Grade - D Aggregates in Los Angeles Abrasion Testing Machine is \_\_\_\_\_.

- Ans  A. 6  
 B. 8  
 C. 11  
 D. 12

Question ID : 1841223276

Q.18 For preliminary sizing, the rupture strength of net section may be approximately taken by using the below equation as per IS : 800 - 2007,

$$T_{dn} = \alpha A_n f_u / \gamma_{m1}$$

What is the "α" value for one or two bolts along the length in the end connection or equivalent weld length.

- Ans  A. 0.5  
 B. 0.7  
 C. 0.8  
 D. 0.6

Question ID : 1841223282

Q.19 According to IS : 4701 – 1982, the the range of side slope values (Horizontal : Vertical ) provided for unlined canals formed in black cotton soils in embankment is:

- Ans  A. 1.5 : 1 to 3 : 1  
 B. 2.5 : 1 to 3.5 : 1  
 C. 2 : 1 to 3 : 1  
 D. 1.5 : 1 to 2.5 : 1

Question ID : 1841223288

Q.20 \_\_\_\_\_ is prepared to decide financial aspect and give idea of the cost of the proposal to sanctioning authority.

- Ans
- A. Cube Rate Estimate
  - B. Revised Estimate
  - C. Preliminary Estimate
  - D. Plinth Area Estimate

Question ID : 1841223285

