Coal India Limited 27th Feb 2020

Section : **General Knowledge and Awareness**

Q.1 **Who among the following has become the first Indian cricketer and second in world cricket to complete 100 T-20 Internationals?**

Ans ✅ A. Rohit Sharma

❌ B. Virat Kohli

❌ C. MS Dhoni

❌ D. Ravindra Jadeja

Question ID : **59445917376**
Status : **Answered**
Chosen Option : **1**

Q.2 **Who had introduced 'Doctrine of Lapse' in India?**

Ans ✅ A. Lord Dalhousie

❌ B. Lord Canning

❌ C. Lord Hastings

❌ D. Lord Auckland

Question ID : **59445917379**
Status : **Answered**
Chosen Option : **1**

Q.3 **Who is the President of FICCI?**

Ans ❌ A. Rashesh Shah

✅ B. Sangita Reddy

❌ C. Sandip Somany

❌ D. Uday Shankar

Question ID : **59445917393**
Status : **Answered**
Chosen Option : **3**

Q.4 Phulkari is the famous handicraft of which state?

Ans
- ✗ A. Sikkim
- ✔ B. Punjab
- ✗ C. Madhya Pradesh
- ✗ D. Maharashtra

Question ID : **59445917377**
Status : **Answered**
Chosen Option : **2**

Q.5 Who is the first Indian to be nominated as the General Vice President of International Organisation Development Association (IODA)?

Ans
- ✗ A. Sangita Reddy
- ✔ B. Vinaya Shetty
- ✗ C. Uday Shankar
- ✗ D. Arvind Singh

Question ID : **59445917392**
Status : **Answered**
Chosen Option : **1**

Q.6 Nabakalebara is the festival of which of the following state?

Ans
- ✗ A. Kerala
- ✗ B. Karnataka
- ✔ C. Odisha
- ✗ D. Andhra Pradesh

Question ID : **59445917378**
Status : **Answered**
Chosen Option : **3**

Q.7 The Amazon rainforest is spread over in _____ countries.

Ans
- ✗ A. 5
- ✗ B. 3
- ✔ C. 9
- ✗ D. 8

Question ID : **59445917381**
Status : **Answered**
Chosen Option : **1**

Q.8 **Which of the following can be used as a coolant in a nuclear reactor?**

Ans ✔ A. Liquid Sodium

✘ B. Nitrogen

✘ C. Hydrogen

✘ D. Carbon monoxide

Question ID : **59445917371**
Status : **Answered**
Chosen Option : **1**

Q.9 **Which of the following country will host the 2023 Men's Hockey World Cup?**

Ans ✔ A. India

✘ B. Spain

✘ C. New Zealand

✘ D. China

Question ID : **59445917375**
Status : **Answered**
Chosen Option : **2**

Q.10 **Which of the following is the oldest oilseed crop in India?**

Ans ✘ A. Flaxseed

✘ B. Mustard

✘ C. Rapeseed

✔ D. Sesame

Question ID : **59445917391**
Status : **Answered**
Chosen Option : **4**

Q.11 **Who among the following will only be provided with SPG cover in India?**

Ans ✘ A. President

✔ B. Prime Minister

✘ C. Home Minister

✘ D. Finance Minister

Question ID : **59445917386**
Status : **Answered**
Chosen Option : **2**

Q.12 _____ speed is measured by the Anemometer.

Ans
- ✗ A. Cyclone
- ✗ B. Current
- ✗ C. Earthquake
- ✔ D. Wind

Question ID : **59445917382**
Status : **Answered**
Chosen Option : **4**

Q.13 Which of the following IT initiatives have been launched by the Ministry of Finance for improving monitoring and pace of Customs clearance of imported goods and facilitating arriving international passengers?

Ans
- ✗ A. ICAM
- ✗ B. Cyber security
- ✗ C. DCOI
- ✔ D. ICEDASH and ATITHI

Question ID : **59445917395**
Status : **Answered**
Chosen Option : **4**

Q.14 Who has been appointed as Chairman of the Airport Authority of India?

Ans
- ✗ A. Amit Khare
- ✔ B. Arvind Singh
- ✗ C. Rajnish Kumar
- ✗ D. Ashok Malik

Question ID : **59445917388**
Status : **Answered**
Chosen Option : **2**

Q.15 Which of the following country will host "No Money for Terror" conference in 2020?

Ans
- ✗ A. Nepal
- ✗ B. China
- ✗ C. Sri Lanka
- ✔ D. India

Question ID : **59445917389**
Status : **Answered**
Chosen Option : **4**

Q.16 Which of the following is the first Indian Regional Satellite?

Ans
  ✗ A. INSAT-3D

  ✓ B. IRNSS-1A

  ✗ C. YOUTHSAT

  ✗ D. GSAT-7

Question ID : **59445917374**
Status : **Answered**
Chosen Option : **4**

Q.17 For which of the following mineral India is mainly depend on imports?

Ans
  ✗ A. Lead

  ✓ B. Mercury

  ✗ C. Mica

  ✗ D. Limestone

Question ID : **59445917383**
Status : **Answered**
Chosen Option : **1**

Q.18 _____ is the most cultivated crop of Kerala.

Ans
  ✗ A. Wheat

  ✗ B. Chick Pea

  ✗ C. Mustard

  ✓ D. Cow Pea

Question ID : **59445917390**
Status : **Answered**
Chosen Option : **2**

Q.19 Where is India's two operational Satellite Launch Pads located?

Ans
  ✗ A. Mumbai

  ✗ B. Rajkot

  ✓ C. Sriharikota

  ✗ D. Jalandhar

Question ID : **59445917373**
Status : **Answered**
Chosen Option : **3**

Q.20 When is the World Science Day for Peace and Development celebrated every year?

Ans

✗ A. 30th August

✗ B. 4th November

✔ C. 10th November

✗ D. 11th October

Question ID : **59445917372**
Status : **Answered**
Chosen Option : **3**

Q.21 Sheikh Khalifa Bin Zayed Al Nahyan has been elected as the President of which of the following country?

Ans

✔ A. UAE

✗ B. Bahrain

✗ C. Kuwait

✗ D. Qatar

Question ID : **59445917387**
Status : **Answered**
Chosen Option : **1**

Q.22 Who appoints the Vice President of India?

Ans

✗ A. President

✗ B. Supreme Court

✔ C. The Electoral College of India

✗ D. Prime Minister

Question ID : **59445917385**
Status : **Answered**
Chosen Option : **3**

Q.23 Which of the following Company has developed Mac Operating System?

Ans

✗ A. Microsoft

✗ B. IBM Corp

✗ C. HP

✔ D. Apple

Question ID : **59445917394**
Status : **Answered**
Chosen Option : **4**

Q.24 Who was the founder of Sayyid Dynasty?

Ans
- ✗ A. Jalal-ud-din Khilji
- ✗ B. Sikandar Lodhi
- ✔ C. Khizar Khan
- ✗ D. Nasir-ud-din Mahmud

Question ID : **59445917380**
Status : **Answered**
Chosen Option : **1**

Q.25 Which of the following General Insurance Company has launched "Farmitra" a mobile app for farmers?

Ans
- ✗ A. United India Insurance
- ✗ B. The Oriental Insurance
- ✗ C. Tata AIG Insurance
- ✔ D. Bajaj Allianz General Insurance

Question ID : **59445917384**
Status : **Answered**
Chosen Option : **1**

Section : **Numerical Ability**

Q.1 The average of 17 numbers is 48. The average of first 9 numbers is 45 and average of next 9 numbers is 52. If 9th number is excluded, the average of the remaining number is:

Ans
- ✗ A. 53.4375
- ✔ B. 47.4375
- ✗ C. 49.5225
- ✗ D. 58.5135

Question ID : **59445917449**
Status : **Answered**
Chosen Option : **2**

Q.2 Alloy A contains copper and zinc in the ratio 4 : 5 and alloy B contains copper and zinc in the ratio 7 : 2. A and B are taken in the ratio 7 : 4 and melted to form a new alloy. The percentage of copper in the new alloy is closest to:

Ans
- ✗ A. 67.5%
- ✗ B. 65.25%
- ✔ C. 56.57%
- ✗ D. 57.79%

Question ID : **59445917460**
Status : **Answered**
Chosen Option : **2**

Q.3 A woman distributed her savings between her daughters A, B, C and D in the ratio 6 : 7 : 9 : 16. If A gives Rs. 600 from his share to C, the ratio of shares of A, B, C and D becomes 1 : 4 : 2 : 5. What is the sum of shares (in Rs.) of A, C and B, in the beginning?

Ans
✅ A. 13200
❌ B. 14550
❌ C. 15100
❌ D. 14750

Question ID : **59445917454**
Status : **Answered**
Chosen Option : **2**

Q.4 Sum of first 10 terms of a GP is equal to the sum of the first 12 terms in the same GP. Sum of the first 17 terms is 42, what is the fourth term in the GP?

Ans
❌ A. 0
✅ B. -42
❌ C. 42
❌ D. -21

Question ID : **59445917470**
Status : **Answered**
Chosen Option : **2**

Q.5 If a six-digit number $3x9\,z\,8\,y$ is divisible by 7, 11, 13, then the average value of x, y, z is:

Ans
❌ A. 23/3
❌ B. 31/3
❌ C. 8
✅ D. 20/3

Question ID : **59445917446**
Status : **Answered**
Chosen Option : **4**

Q.6 Twenty five litres of 40% concentration of acid solution is added to 35 litres of 70% concentration of acid solution. What is the concentration of acid in the new solution?

Ans
✅ A. 57.5%
❌ B. 55%
❌ C. 60%
❌ D. 62.5%

Question ID : **59445917459**
Status : **Answered**
Chosen Option : **2**

Q.7 A 18 m long ladder (whose foot is on the ground) leans against a wall making an angle of 30° with the wall. What is the height (in m) of the point where the ladder touches the wall from the ground?

Ans   ✔ A. $9\sqrt{3}$

     ✘ B. $\dfrac{9\sqrt{3}}{2}$

     ✘ C. 18

     ✘ D. $9\sqrt{2}$

Question ID : **59445917465**
Status : **Answered**
Chosen Option : **1**

Q.8 A person invested a sum of Rs. 9000 at r% per annum at simple interest and a sum of Rs. 13500 at (r−2)% at simple interest. If total interest earned on both the investments for 5 years is Rs. 9337.50, then the rate of interest on the first investment is:

Ans   ✘ A. 8%

     ✘ B. 10%

     ✘ C. 7.5%

     ✔ D. 9.5%

Question ID : **59445917457**
Status : **Answered**
Chosen Option : **2**

Q.9 From the top of a pole house A in a street, the angles of elevation and depression of the top and foot of house B on the opposite side of the street are 60° and 30°, respectively. If the height of pole house A is 21 m, then what is the height (in m) of house B? (correct to one decimal place)

Ans   ✔ A. 48.5

     ✘ B. 57.5

     ✘ C. 47.8

     ✘ D. 49.8

Question ID : **59445917466**
Status : **Answered**
Chosen Option : **1**

Q.10 A woman saves 18% of her income. If her income increases by 15% and the expenditure increases by 21.6%, then what is the percent decrease in the saving (correct to one decimal place)?

Ans   ✘ A. 16.8

     ✔ B. 15.1

     ✘ C. 13.7

     ✘ D. 17.2

Question ID : **59445917451**
Status : **Answered**
Chosen Option : **3**

Q.11 If A's income is 60% more of B's income and B's income is 40% less than C's income, then by what percent is C's income more than A's income? (Correct to one decimal place)

Ans

✔ A. 4.2

✘ B. 7.6

✘ C. 6.8

✘ D. 2.4

Question ID : **59445917450**
Status : **Answered**
Chosen Option : **1**

Q.12 A person sold two articles for Rs. 1836 each. On one he gained 20% and on other he lost 20%. What is his overall gain or loss percent, correct to one decimal place?

Ans

✘ A. 5% gain

✘ B. 6% gain

✘ C. 7% loss

✔ D. 4% loss

Question ID : **59445917452**
Status : **Answered**
Chosen Option : **4**

Q.13 A train while going slower by 15 km reaches late by 45 hours, if it travels faster by 60 km it reaches 72 hours earlier. The total distance (in km) travelled is:

Ans

✘ A. 8250

✘ B. 8775

✘ C. 7500

✔ D. 9750

Question ID : **59445917462**
Status : **Answered**
Chosen Option : **1**

Q.14 If $x = \frac{\sqrt{7}-\sqrt{5}}{\sqrt{5}+\sqrt{7}}$ and y is reciprocal of x, then what is the value of $\sqrt{(x^3 + y^3)}$?

Ans

✘ A. $3\sqrt{47}$

✘ B. $\sqrt{47}$

✔ C. $6\sqrt{47}$

✘ D. $5\sqrt{47}$

Question ID : **59445917455**
Status : **Answered**
Chosen Option : **1**

Q.15 In a class of 60 students, the girls are 60%. The average weight of boys is 62 kg and that of girls is 58 kg. What is the average weight (in kg) of whole class?

Ans ✗ A. 61.5

✗ B. 60

✔ C. 59.6

✗ D. 61.4

Question ID : **59445917448**
Status : **Answered**
Chosen Option : **4**

Q.16 A loan has to be returned in two equal yearly instalments each of Rs. 42135. If the rate of interest is 6% p.a., compounded annually, then the total interest paid (in Rs.) is:

Ans ✗ A. 7700

✔ B. 7020

✗ C. 7550

✗ D. 8000

Question ID : **59445917458**
Status : **Answered**
Chosen Option : **2**

Q.17 A and B can do a work in 21 days, A is $\frac{7}{4}$ times as efficient as B. In how many days, A alone can complete the $\frac{200}{3}$% of the work?

Ans ✔ A. 22

✗ B. 33

✗ C. 36

✗ D. 27

Question ID : **59445917463**
Status : **Answered**
Chosen Option : **3**

Q.18 The value of $\dfrac{5.169 \times 5.169 \times 5.169 + 64 \times (0.888)^3}{(5.169)^2 + (3.552)^2 - 4(0.888)(5.169)}$ is $(8+k)$, where $k = ?$

Ans ✗ A. 0.656

✗ B. 0.388

✔ C. 0.721

✗ D. 0.129

Question ID : **59445917447**
Status : **Answered**
Chosen Option : **3**

Q.19 If $\sqrt{12 - 2\sqrt{35}} + \sqrt{8 + 2\sqrt{15}} = \sqrt{a} + \sqrt{b}$, where a and b are positive integers, then the value of ab is closest to:

Ans

✔ A. 21

✘ B. 35

✘ C. 8

✘ D. 12

Question ID : **59445917456**

Status : **Answered**

Chosen Option : **1**

Q.20 The third term of an arithmetic progression is 6. Then the sum of first five terms is:

Ans

✘ A. 25

✔ B. 30

✘ C. 15

✘ D. 35

Question ID : **59445917469**

Status : **Answered**

Chosen Option : **2**

Q.21 A can do a certain work in 12 days, B alone can do the same work in 16 days. A and B undertook to complete it in Rs. 8000. With the help of C, they completed the work in 6 days. How much money (in Rs.) be paid to C?

Ans

✔ A. 1000

✘ B. 3000

✘ C. 4000

✘ D. 2000

Question ID : **59445917464**

Status : **Answered**

Chosen Option : **1**

Q.22 If $x^4 + x^2 y^2 + y^4 = 29$ and $x^2 - xy + y^2 = 5$, then what is the value of 5xy?

Ans

✘ A. 0

✔ B. 2

✘ C. -2

✘ D. -1

Question ID : **59445917468**

Status : **Answered**

Chosen Option : **3**

Q.23 A person marks his goods 40% above the cost price. He sold 30% of goods at marked price, 60% of the remaining at a discount of 20% and remaining at 40% discount. What is his overall gain percent?

Ans
- ✗ A. 15.8%
- ✗ B. 27.4%
- ✗ C. 23.5%
- ✔ D. 17.6%

Question ID : **59445917453**
Status : **Answered**
Chosen Option : **3**

Q.24 A covers a certain distance at a certain speed. If he covers half of the distance in three time then the ratio of this speed to the original speed is:

Ans
- ✗ A. 1:4
- ✗ B. 4:5
- ✔ C. 1:6
- ✗ D. 6:1

Question ID : **59445917461**
Status : **Answered**
Chosen Option : **3**

Q.25 If $x^4 - 79x^2 + 1 = 0$, then a value of $x^3 + x^{-3}$ can be:

Ans
- ✔ A. 702
- ✗ B. 720
- ✗ C. 789
- ✗ D. 798

Question ID : **59445917467**
Status : **Answered**
Chosen Option : **2**

Section : **Reasoning**

Q.1 Sukanya is Ayushman's wife. Lekha is Sukanya's sister. Nisha is Lekha's mother. Mukesh is Nisha's husband. Piyush is Nisha's Son. How is Ayushman related to Mukesh?

Ans
- ✗ A. Brother in law
- ✗ B. Son
- ✗ C. Brother
- ✔ D. Son in law

Question ID : **59445917531**
Status : **Answered**
Chosen Option : **4**

Q.2 Select the pair of words from the given options that shares a similar relationship as the given pair.

Shark : Fish

Ans ✗ A. Bat: Bird

✗ B. Dolphin: Fish

✔ C. Whale : Mammal

✗ D. Iguana: Amphibian

Question ID : **59445917523**
Status : **Answered**
Chosen Option : **3**

Q.3 In a certain language, if PERSIST is written as 7591912, then how is ANCESTOR is coded in the same language?

Ans ✗ A. 14351259

✗ B. 15351059

✔ C. 15351269

✗ D. 14351268

Question ID : **59445917538**
Status : **Answered**
Chosen Option : **1**

Q.4 A reputed educational institution is to select meritorious graduates, for the award of scholarships for higher studies abroad at a premium University, who fulfill the following criteria:
The candidate must -

(i) have Minimum 85% marks in the final year examination of the institute.
(ii) have secured at least 90 % marks in the selection test of the University abroad.
(iii) not be less than 21 years and not more than 25 years of age as on 1.01.2020

In case of a candidate who satisfies all other criteria except:
(a) At (i) above but has won at least one major prize/award in Debate/ Sports/ Cultural event, the case may be referred to the Director of the Institution.
(b) At (ii) above but is from the reserved category, there is relaxation of age by 2 years.

Based on the above criteria and conditions, analyze and decide which of the following course of action should be taken for the candidate whose description is provided below. Please note that you are not to assume anything other than the given information.

Deepinder Bhalla, born on 17th December, 1997 secured 79% marks in final year. She got 92% marks in selection test and has won 3 Inter-University debate competitions.

Ans ✗ A. The candidate is to be selected.

✔ B. The case is to be referred to the Director of the Institute,

✗ C. The candidate is not to be selected.

✗ D. The candidate is to be selected under the relaxed criterion.

Question ID : **59445917529**
Status : **Answered**
Chosen Option : **2**

Q.5 Rearrange the given letters to form meaningful words and select the option which is different from the other three words.

Ans ✗ A. PLEAP

✔ B. SEHCWA

✗ C. RPOATIC

✗ D. EOGARN

Question ID : **59445917524**
Status : **Answered**
Chosen Option : **2**

Q.6 A cube with each edge of 4 cm is painted on all faces. How many of 1 cm cubes, cut out of the larger cube, will not have paint on any of its sides?

Ans ✗ A. 4

✗ B. 6

✗ C. 3

✔ D. 8

Question ID : **59445917526**
Status : **Answered**
Chosen Option : **4**

Q.7 Which of the answer figures is the exact mirror image of the given problem figure when the mirror is held at the right side?

PR4GTF7Dq

Ans ✔ A. PDᒣꟻTӘ4Яq

✗ B. bꓤꓯGꓠꓟ7Dd

✗ C. qDᒣꟻTӘ4Яp

✗ D. pR4ӘTF7Dq

Question ID : **59445917525**
Status : **Answered**
Chosen Option : **1**

Q.8 How many triangles are there in the given figure?
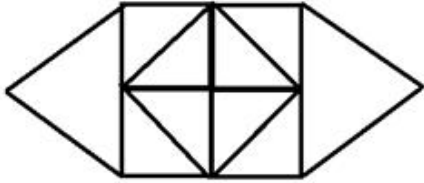
Ans

❌ A. 12

✅ B. 14

❌ C. 15

❌ D. 16

Question ID : **59445917530**

Status : **Answered**

Chosen Option : **2**

Q.9 A group of 74 students of Class XI went on picnic. The number of students who went on picnic by each section is as follows:

Section A = 15
Section B = 24
Section C = 15
Section D = 20
5 students from Section A spent as much as 4 students from Section B. 12 Section B students spent as much as 9 Section C students and 6 Section C students spent as much as 8 Section D student. If every student of a particular section spent the same amount and all the students spent Rs 23,370 altogether, find the amount spent by each student of Section D.
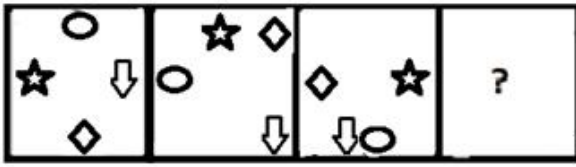
Ans

✅ A. Rs 307.50

❌ B. Rs 410

❌ C. Rs 369

❌ D. Rs 246.50

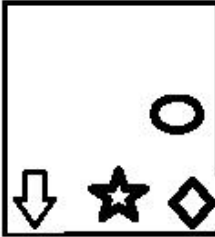Question ID : **59445917534**

Status : **Answered**

Chosen Option : **4**

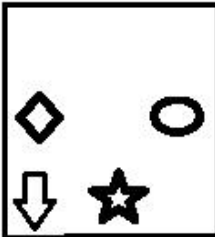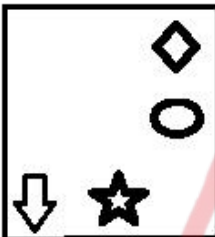**Q.10** Select the figure that will come next in the following figure series.

Ans

✔ A.

✘ B.

✘ C.

✘ D.
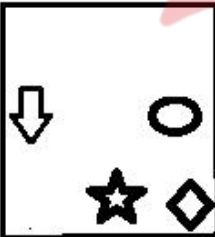
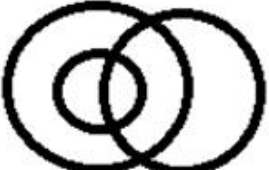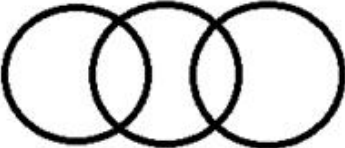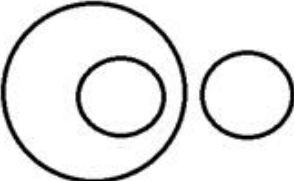Question ID : 59445917537
Status : **Answered**
Chosen Option : **1**

Q.11 Choose the Venn diagram from the given options which represents the correct relationship amongst the following classes:

Pen, Chair, Stationery

Ans

✗ A.

✗ B.

✗ C.

✔ D.

Question ID : **59445917543**
Status : **Answered**
Chosen Option : **3**

Q.12 Six participants, U, V, W, X, Y and Z are sitting in two rows, three in each facing each other. X is second to the right of Z. W the neighbour of Y, is sitting diagonally opposite X. V is neighbor of Z. Y is not the end of any row. If V and U interchange the positions, who would be the neighbours of U in the new position?

Ans ✗ A. W and X

✗ B. X and Y

✗ C. Z and Y

✔ D. Z and X

Question ID : **59445917527**
Status : **Answered**
Chosen Option : **3**

Q.13 A + B means 'A is the father of B'; A − B means 'A is the wife of B', A × B means 'A is brother of B', A ÷ B means 'A is the daughter of B'. If R − V × T ÷ W, then how is R related to W?

Ans
✗ A. Son in law

✗ B. Mother

✔ C. Daughter in law

✗ D. Mother in law

Question ID : **59445917532**
Status : **Answered**
Chosen Option : **2**

Q.14 Ravi is shorter than Kartik but taller than Gagan and Tarun who are taller than Saksham. Sunil is taller than Aarav but shorter than Saksham. Who is the tallest of all?

Ans
✗ A. Aarav

✗ B. Tarun

✔ C. Kartik

✗ D. Gagan

Question ID : **59445917542**
Status : **Answered**
Chosen Option : **3**

Q.15 Select the option that is related to the fourth term in the same way as the first term is related to the second term.

Quarrel : War : Error : ?

Ans
✗ A. Carelessness

✗ B. Anger

✗ C. Omission

✔ D. Blunder

Question ID : **59445917521**
Status : **Answered**
Chosen Option : **3**

Q.16 Select the option that is related to the fourth term in the same way as the first term is related to the second term.

REQUEST : QGNYZYM :: _____ : OTBHDIM

Ans
✗ A. RESTFIT

✗ B. PRECICT

✔ C. PREDICT

✗ D. RESTICT

Question ID : **59445917522**
Status : **Answered**
Chosen Option : **3**

Q.17 Which word CANNOT be formed using letters of the given word using each letter only as many times as it appears in the given word?
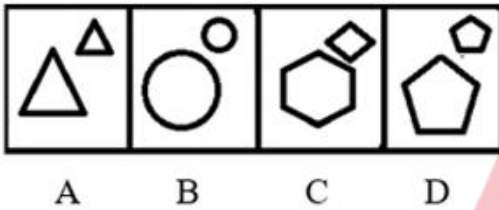
DOCUMENTARY

Ans ✗ A. AERODUCT

✗ B. EDUCATOR

✔ C. DEMOCRACY

✗ D. MONETARY

Question ID : **59445917540**
Status : **Answered**
Chosen Option : **3**

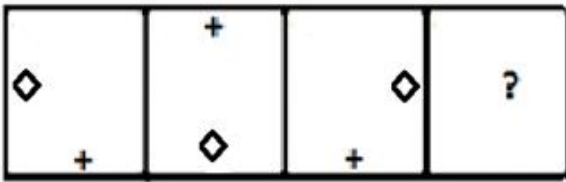**Q.18** Select the figure which is different from the other three alternatives.

Ans ✗ A. D

✗ B. B

✔ C. C

✗ D. A

Question ID : **59445917533**
Status : **Answered**
Chosen Option : **3**

Q.19 Select the figure that will come next in the following figure series.

Ans

✗ A.

✗ B.

✔ C.

✗ D.
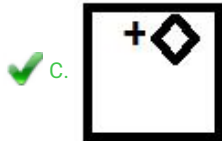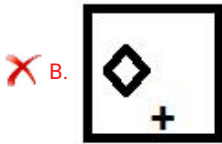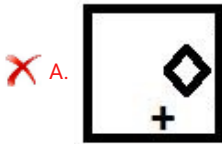
Question ID : **59445917536**
Status : **Answered**
Chosen Option : **3**

Q.20 Three statements are given followed by four conclusions I, II, III and IV. You have to consider these statements to be true, even if they seem at variance from commonly known facts. Decide which of the given conclusions logically follow/s from the given statement.

Statements:
A. All beetroots are carrots.
B. All carrots are radishes.
C. All radishes are white.

Conclusions:
I. All beetroots are white.
II. All white are carrots.
III. All radishes are beetroots.
Iv. All carrots are white

Ans

✗ A. Only conclusions I and II follow.

✔ B. Only conclusions I and IV follow.

✗ C. Only conclusions II and III follow.

✗ D. All the conclusion follow.

Question ID : **59445917541**
Status : **Answered**
Chosen Option : **2**

Q.21 A statement is given followed by two courses of actions I and II. You have to assume everything in the statement to be true, then decide which of the suggested given courses of action logically follows for pursuing.

Statement: It is estimated that in this year's International Trade fair 25 lakh people will visit Pragati Maidan, Delhi

Courses of action:
I. The Delhi Police should be on high alert and discourage people from visiting the fair.
II. The management of fair should have enough ticket booths and shuttle services to avoid long queues.

Ans
✅ A. Only II follows.

❌ B. Both I or II follow.

❌ C. Neither I nor II follows.

❌ D. Only I follows.

Question ID : **59445917528**
Status : **Answered**
Chosen Option : **1**

Q.22 In a certain code, ARDENT is coded as 13, CANOE is coded as 11, then what is the code of REPRESENT?

Ans
✅ A. 19

❌ B. 17

❌ C. 18

❌ D. 20

Question ID : **59445917539**
Status : **Answered**
Chosen Option : **1**

Q.23 Four groups of numbers are given out of which the numbers in three groups bear a certain common relationship. Choose the group in which the numbers are differently related.

Ans
✅ A. 28 - 195

❌ B. 18 - 81

❌ C. 22 - 121

❌ D. 38 - 361

Question ID : **59445917545**
Status : **Answered**
Chosen Option : **1**

Q.24 Some equations are solved on the basis of a certain system. Find the correct answer for the given unsolved equation on that basis:-

94 x 18 = 44
89 x 23 = 78
75 x 36 = ?

Ans
✗ A. 21

✗ B. 43

✗ C. 56

✓ D. 53

Question ID : **59445917544**
Status : **Answered**
Chosen Option : **4**

Q.25 Which number will replace the question mark (?) in the following series.

2, 7, 14, 23, ?, 47

Ans
✗ A. 37

✗ B. 32

✗ C. 30

✓ D. 34

Question ID : **59445917535**
Status : **Answered**
Chosen Option : **4**

Section : **General English**

Q.1 Identify the part of the sentence which contains an error.

India and Sri Lanka/ have/ many large number of/ educated workers than Brazil.

Ans
✓ A. many large number of

✗ B. have

✗ C. educated workers than Brazil

✗ D. India and Sri Lanka

Question ID : **59445917596**
Status : **Answered**
Chosen Option : **1**

Q.2 Choose the correct words to fill in the blanks.

The prize money was shared _____ all the members _____ the football team.

Ans
✗ A. by; among

✗ B. between; in

✓ C. among; of

✗ D. by; from

Question ID : **59445917599**
Status : **Answered**
Chosen Option : **2**

Q.3 Choose the word that best replaces the words highlighted in the sentence.

Our teacher has the art of explaining something clearly.

Ans ✔ A. exposition

✖ B. argumentation

✖ C. narration

✖ D. description

Question ID : **59445917601**
Status : **Answered**
Chosen Option : **4**

Q.4 Choose the word that best replaces the words highlighted in the sentence.

Rahim has the power to see what would or might happen in the future.

Ans ✖ A. astrology

✖ B. imagination

✖ C. prediction

✔ D. foresight

Question ID : **59445917600**
Status : **Answered**
Chosen Option : **3**

Q.5 Choose the correct meaning of the expression highlighted in the sentence.

The amended law is a watered down version of the earlier law.

Ans ✔ A. weaker or diluted

✖ B. difficult to implement

✖ C. stronger

✖ D. submerged in water

Question ID : **59445917609**
Status : **Answered**
Chosen Option : **1**

Q.6 Complete the sentence with the appropriate word.

Tarun's father bought him a motorbike but _____ him to ride it safely.

Ans ✔ A. cautioned

✖ B. taught

✖ C. pleased

✖ D. helped

Question ID : **59445917612**
Status : **Answered**
Chosen Option : **1**

Q.7 **Choose the correct spelling from the options given.**

Ans   ✗ A. acommodate

   ✗ B. accomodete

   ✔ C. accommodate

   ✗ D. accomadate

Question ID : **59445917606**
Status : **Answered**
Chosen Option : **4**

Q.8 **Choose the correct word(s) to fill in the blank.**

Mohan Lal _____ asleep while watching TV last night.

Ans   ✗ A. has fallen

   ✗ B. had fallen

   ✔ C. fell

   ✗ D. falls

Question ID : **59445917598**
Status : **Answered**
Chosen Option : **3**

Q.9 **Choose the word that means the opposite of the highlighted word in the sentence.**

It is difficult to find any indication of humility in that person.

Ans   ✗ A. submission

   ✔ B. pride

   ✗ C. concern

   ✗ D. compassion

Question ID : **59445917604**
Status : **Answered**
Chosen Option : **4**

Q.10 **Choose the word that roughly means the same as the word highlighted in the sentence.**

The excavation yielded priceless treasures from the earliest civilization.

Ans   ✗ A. memorable

   ✗ B. cheap

   ✗ C. prized

   ✔ D. valuable

Question ID : **59445917603**
Status : **Answered**
Chosen Option : **1**

Q.11 Choose the correct conjunction to complete the sentence.

I want to tell you what happened _____ you will understand it better.

Ans ✓ A. so that

✗ B. but

✗ C. because

✗ D. although

Question ID : **59445917610**
Status : **Answered**
Chosen Option : **3**

Q.12 Choose the word that roughly means the same as the word highlighted in the sentence.

Students who prepare for their board exams shouldn't neglect the languages.

Ans ✗ A. decline

✗ B. abandon

✓ C. ignore

✗ D. fail

Question ID : **59445917602**
Status : **Answered**
Chosen Option : **3**

Q.13 Put the jumbled words in the correct order to form a meaningful sentence.

can / walk / every / take / day / a / if / try / you / should / to / you

Ans ✓ A. If you can, you should try to take a walk every day.

✗ B. If you can try to, you should take a walk every day.

✗ C. If you should, you can try every day to take a walk.

✗ D. If you should take a walk every day, you can try to.

Question ID : **59445917614**
Status : **Answered**
Chosen Option : **1**

Q.14 Choose the word that means the opposite of the highlighted word in the sentence.

If you are selected, you must comply with the following conditions.

Ans ✗ A. proceeding

✗ B. receding

✗ C. succeeding

✓ D. preceding

Question ID : **59445917605**
Status : **Answered**
Chosen Option : **4**

Q.15 Choose the correct structure to complete the sentence.

_____ on his own, they would have been forced to dismiss him from service.

Ans

✔ A. Had he not resigned

✘ B. He had not resigned

✘ C. Unless he had not resigned

✘ D. He had resigned

Question ID : **59445917611**
Status : **Answered**
Chosen Option : **3**

Q.16 Choose the correct spelling from the options given.

Ans

✘ A. enaugarate

✘ B. innagarate

✘ C. inagurate

✔ D. inaugurate

Question ID : **59445917607**
Status : **Answered**
Chosen Option : **4**

Q.17 Identify the part of the sentence which contains an error.

The coin collector was willing to pay/ a huge sum for the rare coin/ because it was/ one kind.

Ans

✘ A. because it was

✘ B. a huge sum for the rare coin

✘ C. coin collector was willing to pay

✔ D. one kind

Question ID : **59445917597**
Status : **Answered**
Chosen Option : **1**

Q.18 Complete the sentence with the appropriate word.

It is claimed that _____ in the telecom industry will bring the charges down for people.

Ans

✘ A. finance

✘ B. decrease

✘ C. increase

✔ D. competition

Question ID : **59445917613**
Status : **Answered**
Chosen Option : **4**

Q.19 **Choose the correct order of sentences to form a meaningful paragraph.**

Ans ✗ A. Movies depict cruelty and violence as heroic rather than vicious.

Every day we read and hear about the crimes committed by younger people.
The result is that juvenile crime has become a major problem in our country.
In addition, many parents often avoid their responsibilities or are unable to exercise them.

✗ B. The result is that juvenile crime has become a major problem in our country.

In addition, many parents often avoid their responsibilities or are unable to exercise them.
Movies depict cruelty and violence as heroic rather than vicious.
Every day we read and hear about the crimes committed by younger people.

✔ C. Every day we read and hear about the crimes committed by younger people.

Movies depict cruelty and violence as heroic rather than vicious.
In addition, many parents often avoid their responsibilities or are unable to exercise them.
The result is that juvenile crime has become a major problem in our country.

✗ D. In addition, many parents often avoid their responsibilities or are unable to exercise them.

Movies depict cruelty and violence as heroic rather than vicious.
Every day we read and hear about the crimes committed by younger people.
The result is that juvenile crime has become a major problem in our country.

Question ID : **59445917615**
Status : **Answered**
Chosen Option : **1**

Q.20 **Choose the correct meaning of the expression highlighted in the sentence.**

An unknown politician tried to whip up the crowd through his speech.

Ans ✗ A. beat up

✔ B. stir emotionally

✗ C. drive away

✗ D. scolded

Question ID : **59445917608**
Status : **Answered**
Chosen Option : **3**

Comprehension:

Read the passage carefully and answer the questions that follow.

The Postmaster, a native of Calcutta, took up his duties in the remote village of Ulapur. He felt very lonely and homesick. At times he wrote verses. Ratan was his only companion. She was an orphan girl. She did odd jobs for him. He talked to Ratan about his mother, brother and sister. That gave him much comfort. Ratan got very much attached to him.

One day the Postmaster fell ill. Ratan nursed him like his mother. Afterwards the Postmaster applied for a transfer. It was rejected. So he resigned his job. Ratan expected him to take her with him. The Postmaster simply laughed at her idea. The laughter haunted her throughout the night.

The Postmaster promised to ask his successor to take care of her. It offended her more. Ratan burst out weeping and said there was no need for that. Before his departure he gave her some money. She refused to accept it. While crossing the river in a boat he felt an impulse to go back and bring the girl. It was too late. Meetings and partings are numberless in human life. He consoled himself with this philosophy. Ratan had no such philosophy to console her. She was wandering about the post office with tears in her eyes, fondly hoping that her Postmaster would return.

SubQuestion No : 21

Q.21 Which of the following did NOT give comfort to the postmaster when he felt homesick?

Ans ✗ A. He wrote verses at times.

✗ B. He talked to Ratan about his family.

✔ C. When Ratan asked him to take her with him, he laughed at the idea.

✗ D. Ratan nursed him like his mother when he fell ill.

Question ID : **59445918657**
Status : **Answered**
Chosen Option : **2**

Comprehension:

Read the passage carefully and answer the questions that follow.

The Postmaster, a native of Calcutta, took up his duties in the remote village of Ulapur. He felt very lonely and homesick. At times he wrote verses. Ratan was his only companion. She was an orphan girl. She did odd jobs for him. He talked to Ratan about his mother, brother and sister. That gave him much comfort. Ratan got very much attached to him.

One day the Postmaster fell ill. Ratan nursed him like his mother. Afterwards the Postmaster applied for a transfer. It was rejected. So he resigned his job. Ratan expected him to take her with him. The Postmaster simply laughed at her idea. The laughter haunted her throughout the night.

The Postmaster promised to ask his successor to take care of her. It offended her more. Ratan burst out weeping and said there was no need for that. Before his departure he gave her some money. She refused to accept it. While crossing the river in a boat he felt an impulse to go back and bring the girl. It was too late. Meetings and partings are numberless in human life. He consoled himself with this philosophy. Ratan had no such philosophy to console her. She was wandering about the post office with tears in her eyes, fondly hoping that her Postmaster would return.

SubQuestion No : 22

Q.22 "At times he wrote verses." The phrase "at times" means
_____.

Ans ✗ A. often

✗ B. always

✔ C. sometimes

✗ D. rarely

Comprehension:

Read the passage carefully and answer the questions that follow.

The Postmaster, a native of Calcutta, took up his duties in the remote village of Ulapur. He felt very lonely and homesick. At times he wrote verses. Ratan was his only companion. She was an orphan girl. She did odd jobs for him. He talked to Ratan about his mother, brother and sister. That gave him much comfort. Ratan got very much attached to him.

One day the Postmaster fell ill. Ratan nursed him like his mother. Afterwards the Postmaster applied for a transfer. It was rejected. So he resigned his job. Ratan expected him to take her with him. The Postmaster simply laughed at her idea. The laughter haunted her throughout the night.

The Postmaster promised to ask his successor to take care of her. It offended her more. Ratan burst out weeping and said there was no need for that. Before his departure he gave her some money. She refused to accept it. While crossing the river in a boat he felt an impulse to go back and bring the girl. It was too late. Meetings and partings are numberless in human life. He consoled himself with this philosophy. Ratan had no such philosophy to console her. She was wandering about the post office with tears in her eyes, fondly hoping that her Postmaster would return.

SubQuestion No : 23

Q.23 Choose the most appropriate option.

What is the theme (or main idea) of the passage?

Ans

  ✗ A. We meet so many people in our lives and we cannot remember all of them.

  ✗ B. We should appreciate those who help us in life.

  ✔ C. Human relationships have no monetary value.

  ✗ D. We should not care for the people who help us.

Question ID : **59445918659**
Status : **Answered**
Chosen Option : **3**

Comprehension:

Read the passage carefully and answer the questions that follow.

The Postmaster, a native of Calcutta, took up his duties in the remote village of Ulapur. He felt very lonely and homesick. At times he wrote verses. Ratan was his only companion. She was an orphan girl. She did odd jobs for him. He talked to Ratan about his mother, brother and sister. That gave him much comfort. Ratan got very much attached to him.

One day the Postmaster fell ill. Ratan nursed him like his mother. Afterwards the Postmaster applied for a transfer. It was rejected. So he resigned his job. Ratan expected him to take her with him. The Postmaster simply laughed at her idea. The laughter haunted her throughout the night.

The Postmaster promised to ask his successor to take care of her. It offended her more. Ratan burst out weeping and said there was no need for that. Before his departure he gave her some money. She refused to accept it. While crossing the river in a boat he felt an impulse to go back and bring the girl. It was too late. Meetings and partings are numberless in human life. He consoled himself with this philosophy. Ratan had no such philosophy to console her. She was wandering about the post office with tears in her eyes, fondly hoping that her Postmaster would return.

SubQuestion No : 24

Q.24 Choose the best option that expresses the tone of the passage.

Ans ✔ A. sentimental

✘ B. serious

✘ C. dismissive

✘ D. casual

Question ID : **59445918660**
Status : **Answered**
Chosen Option : **1**

Comprehension:

Read the passage carefully and answer the questions that follow.

The Postmaster, a native of Calcutta, took up his duties in the remote village of Ulapur. He felt very lonely and homesick. At times he wrote verses. Ratan was his only companion. She was an orphan girl. She did odd jobs for him. He talked to Ratan about his mother, brother and sister. That gave him much comfort. Ratan got very much attached to him.

One day the Postmaster fell ill. Ratan nursed him like his mother. Afterwards the Postmaster applied for a transfer. It was rejected. So he resigned his job. Ratan expected him to take her with him. The Postmaster simply laughed at her idea. The laughter haunted her throughout the night.

The Postmaster promised to ask his successor to take care of her. It offended her more. Ratan burst out weeping and said there was no need for that. Before his departure he gave her some money. She refused to accept it. While crossing the river in a boat he felt an impulse to go back and bring the girl. It was too late. Meetings and partings are numberless in human life. He consoled himself with this philosophy. Ratan had no such philosophy to console her. She was wandering about the post office with tears in her eyes, fondly hoping that her Postmaster would return.

SubQuestion No : 25

Q.25 What do you infer about Ratan from the words

"She _____ fondly hoping that the Postmaster would return"?

Choose the best option, according to the passage.

Ans   ✗ A. The Postmaster did not like Ratan, so he left her.

     ✔ B. Ratan was very much attached to the postmaster.

     ✗ C. The Postmaster did not at all want to take Ratan with him.

     ✗ D. The Postmaster treated Ratan only as a servant.

Question ID : **59445918661**
Status : **Answered**
Chosen Option : **3**

Section : **Domain Knowledge**

Q.1 A _____ is a pictorial depiction of the schema of a database that shows the relations in the database, their attributes, and primary keys and foreign keys.

Ans

✗ A. relational query languages

✗ B. relational algebra

✗ C. flow diagram

✔ D. schema diagram

Question ID : **59445917834**
Status : **Answered**
Chosen Option : **4**

Q.2 Consider the following table of arrival time and burst time for three processes P_0, P_1, P_2

Process	Arrival Time (seconds)	Burst Time (second)
P_0	0	9
P_1	1	4
P_2	2	9

The preemptive shortest job first scheduling algorithm is used. Scheduling is carried out only at arrival or completion of process. The average waiting time for the three process is _____.

Ans

✗ A. 7 seconds

✗ B. 4 seconds

✗ C. 6 seconds

✔ D. 5 seconds

Question ID : **59445917826**
Status : **Answered**
Chosen Option : **4**

Q.3 According to Boolean law: $A^= =$?

Ans

✗ A. 0

✔ B. A

✗ C. $A^=$

✗ D. 1

Question ID : **59445917761**
Status : **Answered**
Chosen Option : **2**

Q.4 Consider the following recursive function.

```
int function (int x, int y) {
        if (y <= 0) return x;
        return function (y, x%y);
        }
```

The above recursive function computes _____.

Ans ✓ A. GCD of x and y

✗ B. x^y

✗ C. y^x

✗ D. HCF of x and y

Question ID : **59445917778**
Status : **Answered**
Chosen Option : **1**

Q.5 The working set model is used in memory management to implement the concept of:

Ans ✓ A. Principle of locality

✗ B. Thrashing

✗ C. Paging

✗ D. Segmentation

Question ID : **59445917824**
Status : **Answered**
Chosen Option : **1**

Q.6 Depth First Search graph search algorithm uses _____ data structure for its implementation.

Ans ✓ A. Stack

✗ B. tree

✗ C. Dequeue

✗ D. Queue

Question ID : **59445917779**
Status : **Answered**
Chosen Option : **1**

Q.7 In RSA
1. p and q are chosen as very large prime number
2. Compute n = p * q and $\phi(n) = (p-1) * (q-1)$

Later e encryption key chosen. How this encryption key is selected?

Ans

✘ A. e is chosen as a relative prime to q

✘ B. e is chosen as a relative prime to p

✔ C. e is chosen as a relative prime to $\phi(n)$

✘ D. e is chosen as a relative prime to n

Question ID : **59445917851**
Status : **Answered**
Chosen Option : **3**

Q.8 Consider the following problem X

"Given a Turing Machine M over the input alphabet Σ any state q of M and word Σ*, does the computation of M on w visit the state q"

Which of the following X is correct?

Ans

✔ A. X is undecidable but partially decidable

✘ B. X is not a decision problem

✘ C. X is decidable

✘ D. X is undecidable but not even partially decidable

Question ID : **59445917810**
Status : **Answered**
Chosen Option : **1**

Q.9 The expression for commutative law is given by:

Ans

✘ A. A + AB = A

✘ B. A + AB = B

✔ C. A + B = B + A

✘ D. AB + AA' = A

Question ID : **59445917762**
Status : **Answered**
Chosen Option : **3**

Q.10 Consider the following grammar
S → m | mn | mno

Choose correct statement from the following:

Ans ❌ A. The grammar is LL (4)

✅ B. The grammar is LL (3)

❌ C. The grammar is LL (2)

❌ D. The grammar is LL (1)

Question ID : **59445917819**
Status : **Answered**
Chosen Option : **3**

Q.11 Consider the classful addressing, the IP address 128.252.144.84 denotes:

Ans ❌ A. 0.0.0.0 as network ID and 128.252.252.84 as node ID

❌ B. 128.0.0.0 as network ID and 128.252.127.84 as node ID

❌ C. 128.252.144.0 as network ID and 128.252.144.84 as node ID

✅ D. 128.252.0.0 as network ID and 128.252.144.84 as node ID

Question ID : **59445917846**
Status : **Answered**
Chosen Option : **4**

Q.12 Consider the following statement.

I. Packet Filter Firewall analyze network traffic at transport layer.
II. Circuit Level Firewalloperate at transport and session layer of OSI Model.

From the above statement which statement/s is/are True

Ans ❌ A. Only I

❌ B. Only II

❌ C. None

✅ D. I and II

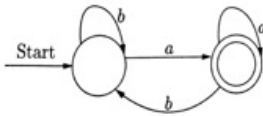Question ID : **59445917853**
Status : **Answered**
Chosen Option : **4**

Q.13 _____ is not a public key cryptosystem.

Ans ❌ A. El Gamal

❌ B. Rabin

✅ C. AES

❌ D. RSA

Question ID : **59445917852**
Status : **Answered**
Chosen Option : **3**

Q.14 Consider the FA shown in fig below which language is accepted by the FA:

Ans

✅ A. (b + a + b)*a

❌ B. b + (a + b)*b

❌ C. b + a*b*

❌ D. b + a*b

Question ID : **59445917804**
Status : **Answered**
Chosen Option : **2**

Q.15 Generation of intermediate code based on an abstract machine model is useful in compilers because:

Ans

✅ A. It makes implementation of lexical and syntax analysis easier

❌ B. It is difficult to generate executable code from high level language program.

❌ C. Syntax translations are easier for intermediate code generation

❌ D. It enhances the portability of the compiler system program

Question ID : **59445917817**
Status : **Answered**
Chosen Option : **4**

Q.16 The maximum height of a binary tree with 'n' nodes is _____.

Ans

❌ A. (n + n)

❌ B. (n + 1)

❌ C. n

✅ D. (n – 1)

Question ID : **59445917776**
Status : **Answered**
Chosen Option : **4**

Q.17 In hashing, collision resolution is carried out by close addressing. Which of the following is close addressing technique –

I. Buckets (for contiguous storage)
II. Chains (for linked storage)

Ans

❌ A. Only I

❌ B. Only II

✅ C. I and II

❌ D. None

Question ID : **59445917793**
Status : **Answered**
Chosen Option : **1**

Q.18 The main memory of a computer has 2 cm blocks while the cache has 2c blocks. If cache uses set associative mapping scheme with two blocks per set, then the block k of the main memory maps to set:

Ans

✗ A. (k mod m) of the cache

✓ B. (k mod c) of the cache

✗ C. (k mod 2c) of the cache

✗ D. (k mod 2cm) of the cache

Question ID : **59445917771**

Status : **Answered**

Chosen Option : **2**

Q.19 Consider the following two statements.

1. A binary tree T is full if each node is either a leaf or possesses exactly two child nodes.
2. A binary tree T with n levels is complete if all levels except possibly the last are completely full, and the last level has all its nodes to the left side.

Which statement is/are TRUE

Ans

✗ A. Only 2

✗ B. Only 1

✓ C. 1 and 2

✗ D. Neither 1 nor 2

Question ID : **59445917786**

Status : **Answered**

Chosen Option : **3**

Q.20 Consider the Unix i-node which uses 12 direct DBAs, 1 single indirect, 1 double indirect, 1 triple indirect. The disk block address requires 32 bits and disk block size is 1 KB. What is the maximum file size?

Ans

✗ A. 32 GB

✗ B. 64 GB

✓ C. 16 GB

✗ D. 8 GB

Question ID : **59445917828**

Status : **Answered**

Chosen Option : **3**

Q.21 A trigger has three parts.
The _____ describes the change that activates the trigger.
The _____ is a query that is run whenever the trigger is activated.
The _____ is the procedure that is executed if the trigger is activated and the condition is true.

Ans ✗ A. event, condition, actor

✗ B. entity, condition, action

✗ C. event, question, action

✔ D. event, condition, action

Question ID : **59445917841**
Status : **Answered**
Chosen Option : **4**

Q.22 Which layer is associated with log in and log out from the network?

Ans ✗ A. Presentation

✗ B. Transport

✗ C. Data Link

✔ D. Session

Question ID : **59445917849**
Status : **Answered**
Chosen Option : **4**

Q.23 Digital Certificates are described using _____ format.

Ans ✔ A. X.509

✗ B. X.510

✗ C. X.508

✗ D. X.409

Question ID : **59445917855**
Status : **Answered**
Chosen Option : **1**

Q.24 _____ Command is used to enable, disable, modify, or drop a constraint in SQL.

Ans ✗ A. MODIFY Table

✗ B. DEFINE Table

✗ C. ADD Column

✔ D. ALTER Table

Question ID : **59445917844**
Status : **Answered**
Chosen Option : **4**

Q.25 Which is equivalent CFG without useless symbols for the given grammar:

S → PQ | p , P → p

Ans ✗ A. S → PQ

✔ B. S → p

✗ C. S → P , P → p

✗ D. S → P | p , P → p

Question ID : **59445917820**
Status : **Answered**
Chosen Option : **4**

Q.26 Which of the following derivation does a top-down parser use while parsing a input string?
The input is assumed to be scanned in left to right order.

Ans ✗ A. Topmost derivation

✗ B. Leftmost derivation traced out in reverse

✔ C. Leftmost derivation

✗ D. Rightmost derivation

Question ID : **59445917811**
Status : **Answered**
Chosen Option : **3**

Q.27 Polynomial addition is implemented using _____ data structure.

Ans ✗ A. Trees

✗ B. Queue

✔ C. Linked list

✗ D. Stack

Question ID : **59445917787**
Status : **Answered**
Chosen Option : **3**

Q.28 A _____ of a relation is a set of one or more attributes whose values are guaranteed to
identify tuples in the relation uniquely.

Ans ✗ A. foreign key

✔ B. super key

✗ C. scheme

✗ D. key

Question ID : **59445917833**
Status : **Answered**
Chosen Option : **4**

Q.29 For implementation of recursion system uses _____ data structure.

Ans ✗ A. Linked List

✗ B. Deque

✅ C. Stack

✗ D. Queue

Question ID : **59445917784**
Status : **Answered**
Chosen Option : **3**

Q.30 Which of the following statement is true?

Ans ✗ A. The parsers canonical LR and LALR have the same power

✗ B. LALR parser is more important than canonical LR parser

✗ C. SLR parser is more powerful than LALR parser

✅ D. Canonical LR parser is more powerful than LALR parser

Question ID : **59445917818**
Status : **Answered**
Chosen Option : **4**

Q.31 Page fault occurs when _____.

Ans ✗ A. The page is in main memory

✗ B. The page has an address, which cannot be loaded

✅ C. The page is not in main memory

✗ D. The page is not in cache memory

Question ID : **59445917822**
Status : **Answered**
Chosen Option : **3**

Q.32 Queue structure is used in _____.

Ans ✗ A. Polynomial addition

✗ B. Recursion

✗ C. Depth First Search algorithm

✅ D. Breadth First Search algorithm

Question ID : **59445917783**
Status : **Answered**
Chosen Option : **4**

Q.33 In RSA algorithm if p =7, q = 11 and e = 13 then what will be the value of d?

Ans ✗ A. 23

✗ B. 40

✓ C. 37

✗ D. 13

Question ID : **59445917850**
Status : **Answered**
Chosen Option : **3**

Q.34 Consider the following statements:

Arithmetic Logic Unit (ALU)

1.Performs arithmetic operations
2. Performs comparisons.
3.Communicates with I/O devices
4.Keeps watch on the system

Which of these statements are correct?

Ans ✗ A. 1 Only

✓ B. 1 and 2 only

✗ C. 1 and 4

✗ D. 2 and 3

Question ID : **59445917772**
Status : **Answered**
Chosen Option : **2**

Q.35 The term cycle stealing is used in context of:

Ans ✗ A. Interrupt based data transfer

✗ B. Polling Mode Data Transfer

✓ C. DMA based data Transfer

✗ D. Clock cycle overriding

Question ID : **59445917775**
Status : **Answered**
Chosen Option : **3**

Q.36 For following logic diagram which expression is true?
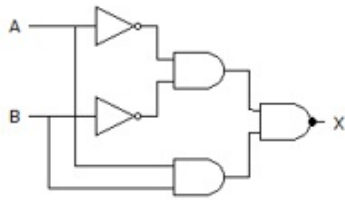
Ans

✗ A. $(AB)\,(\overline{AB}\,.)$

✔ B. $\overline{(\overline{A}\,\overline{B})\,.\,(AB.)}$

✗ C. $\overline{(A\overline{B})+(AB.)}$

✗ D. $\overline{AB}\,.\,AB$

Question ID : **59445917759**
Status : **Answered**
Chosen Option : **2**

Q.37 Excess-3 code of decimal number 2 is:

Ans

✔ A. 0101

✗ B. 1010

✗ C. 1100

✗ D. 0011

Question ID : **59445917765**
Status : **Answered**
Chosen Option : **1**

Q.38 Consider a system with page fault service time (S) = 100 ns, main memory access time (M) = 20 ns, and page fault rate (P) = 65%. Calculate the effective memory access time.

Ans

✗ A. 62 ns

✗ B. 82 ns

✗ C. 80 ns

✔ D. 72 ns

Question ID : **59445917829**
Status : **Answered**
Chosen Option : **4**

Q.39 Solve the following recurrence relation:

$T(n) = 4T(n/2) + n^2$

Ans ✗ A. $\Theta (n^3)$

✔ B. $\Theta (n^2\log n)$

✗ C. $\Theta (n^2 /2)$

✗ D. $\Theta (n^2)$

Question ID : **59445917799**
Status : **Answered**
Chosen Option : **2**

Q.40 In _____ balance factor of a node is the difference between left subtree and right subtree.

Ans ✗ A. Red Black Tree

✗ B. B+ Tree

✔ C. AVL tree

✗ D. 2-3 Tree

Question ID : **59445917790**
Status : **Answered**
Chosen Option : **3**

Q.41 The language generated by following grammar is:

$S \rightarrow aSa \mid bSb \mid \varepsilon$

Ans ✔ A. Even length palindrome

✗ B. $a^m b^n$ n ≥ 0, m ≥ 0

✗ C. Odd length palindrome

✗ D. $a^n b^m$ n ≥ 1, m ≥ 1

Question ID : **59445917802**
Status : **Answered**
Chosen Option : **1**

Q.42 The language $\{a^m b^n c^{m+n} \mid m, n \geq 1\}$ is:

Ans ✗ A. regular

✗ B. type 0 but not context sensitive

✔ C. context free but not regular

✗ D. context sensitive but not context free

Question ID : **59445917807**
Status : **Answered**
Chosen Option : **3**

Q.43 Which of the following affects the processing power of CPU

I. Data bus width
II. Clock speed
III. Address Bus width

Ans ❌ A. I and III

✅ B. I, II and III

❌ C. Only I

❌ D. Only II

Question ID : **59445917770**
Status : **Answered**
Chosen Option : **2**

Q.44 In a D flip flop the out-put state Q is related with D input in what way?

Ans ❌ A. Q is dependent of D

✅ B. Q is same as D

❌ C. Q is independent of D

❌ D. Q is complement of D

Question ID : **59445917758**
Status : **Answered**
Chosen Option : **2**

Q.45 _____ includes a query language and commands to insert tuples into, delete tuples from, and modify tuples in the database.

Ans ❌ A. Query Language

✅ B. Data-manipulation language

❌ C. Data-definition language

❌ D. Data-calculation language

Question ID : **59445917835**
Status : **Answered**
Chosen Option : **2**

Q.46 Which grammar rules violate the requirement of the operator grammar? A, B, C are variables and a, b, c are terminals.

i. A → BC
ii. A → CcBb
iii. A → BaC
iv. A → ε

Ans ❌ A. i only

❌ B. i and ii

❌ C. i and iii

✅ D. i and iv

Question ID : **59445917821**
Status : **Answered**
Chosen Option : **4**

Q.47 Principle of locality is used in _____.

Ans
- ✗ A. Registers
- ✗ B. DMA
- ✔ C. Cache Memory
- ✗ D. Interrupt

Question ID : **59445917767**
Status : **Answered**
Chosen Option : **3**

Q.48 In _____ authentication, the claimant proves that she knows the secret without sending it to the verifier.

Ans
- ✗ A. asymmetric
- ✗ B. zero knowledge
- ✗ C. symmetric
- ✔ D. challenge response

Question ID : **59445917854**
Status : **Answered**
Chosen Option : **4**

Q.49 The following is the sequence of insertion in a binary tree.

45,65,35,40,33,70,60,75,69

How many numbers of nodes in Left Sub Tree (LST) and Right Sub Tree (RST) of Root node.

Ans
- ✗ A. LST − 6, RST-2
- ✗ B. LST − 5, RST-3
- ✔ C. LST − 3, RST-5
- ✗ D. LST − 2, RST-6

Question ID : **59445917777**
Status : **Answered**
Chosen Option : **3**

Q.50 Find the output of the following

```
#include

int main( )
{
int x=5, y=9;

x=(x= x+y)-(y= x-y);

printf("%d %d ", x, y);

return 0;
}
```

Ans

✗ A. 5 14

✗ B. 5 9

✗ C. 14 5

✔ D. 9 5

Question ID : **59445917789**

Status : **Answered**

Chosen Option : **4**

Q.51 Solve the following recurrence relation

T(n) = 4T(n/2) + n

Ans

✔ A. $O(v^2)$

✗ B. O(n /2)

✗ C. O(n)

✗ D. O(log n)

Question ID : **59445917794**

Status : **Answered**

Chosen Option : **1**

Q.52 A _____ is the combination of one or more column values in a table that make a row of data unique within the table.

Ans

✗ A. foreign key

✗ B. natural key

✗ C. candidate key

✔ D. primary key

Question ID : **59445917831**

Status : **Answered**

Chosen Option : **3**

Q.53 Write true (T) / false (F)for each of the following statements:

A. Symbol table is used only in first phase of a compiler.
B. A pretty printer analyses a program and prints it in such a way that the structure of the program becomes early visible.
C. YACC build up LALR parsing table.
D. If a grammar is LALR(1), it is not necessarily SLR(1)

Ans

✗ A. T T F T

✗ B. F T T T

✗ C. T T T F

✔ D. F T T F

Question ID : **59445917816**
Status : **Answered**
Chosen Option : **4**

Q.54 The following grammar is:

S → Aa | bAc | Bc | bBa
A → d
B → d

Ans

✗ A. Not LR(1) but LALR(1)

✗ B. Neither LR(1) nor LALR(1)

✗ C. LR(1) and LALR(1)

✔ D. LR(1) but not LALR(1)

Question ID : **59445917814**
Status : **Answered**
Chosen Option : **1**

Q.55 Let L be the set of all binary strings whose last two symbols are the same. The number of states in the minimum state deterministic finite state automation accepting language is _____.

Ans

✗ A. 2

✔ B. 5

✗ C. 8

✗ D. 3

Question ID : **59445917806**
Status : **Answered**
Chosen Option : **4**

Q.56 _____ is First in Last Out kind of data structure.

Ans

✔ A. Stack

✗ B. Array

✗ C. Deque

✗ D. Queue

Question ID : **59445917780**
Status : **Answered**
Chosen Option : **1**

Q.57 What is mean by stable sorting algorithm?

Ans ✗ A. A sorting algorithm is stable if it preserves the order of all keys

✗ B. A sorting algorithm is stable if it preserves the order of non-duplicate keys

✔ C. A sorting algorithm is stable if it preserves the order of duplicate keys

✗ D. A sorting algorithm is stable if it doesn't preserve the order of duplicate keys

Question ID : **59445917791**
Status : **Answered**
Chosen Option : **3**

Q.58 Consider the following Inorder and Preorder traversal of a tree

Inorder – D B E F A G H C
Preorder - A B D E F C G H

What is the Postorder Traversal of the same tree

Ans ✗ A. D F E B H C G A

✗ B. D F E B G H C A

✗ C. D F E H B G C A

✔ D. D F E B H G C A

Question ID : **59445917781**
Status : **Answered**
Chosen Option : **4**

Q.59 In SQL – the function - avg, min, max, sum, count are called as _____.

Ans ✔ A. aggregate function

✗ B. adjunct function

✗ C. scalar operation

✗ D. set operation

Question ID : **59445917836**
Status : **Answered**
Chosen Option : **1**

Q.60 **What is the output of the following C program**

#include

int main( )
{
int i=5;
printf("%d %d %d", i++, i, ++i);

return 0;
}

Ans   ✗ A. 7 6 6

       ✗ B. 6 7 8

       ✔ C. 6 7 7

       ✗ D. 5 6 7

Question ID : **59445917788**
Status : **Answered**
Chosen Option : **1**

Q.61 **What is number of page faults by least recently used page replacement for a memory with 4 frames for the page reference string 2, 0, 1, 2, 4, 0, 5, 1, 4, 6, 4, 2, 1, 3, 0 ?**

Ans   ✗ A. 9

       ✗ B. 7

       ✗ C. 8

       ✔ D. 10

Question ID : **59445917830**
Status : **Answered**
Chosen Option : **4**

Q.62 **Relations and fields can be renamed in relational algebra using the renaming operator _____.**

Ans   ✔ A. ρ

       ✗ B. σ

       ✗ C. θ

       ✗ D. ⋈

Question ID : **59445917839**
Status : **Answered**
Chosen Option : **1**

Q.63 **Consider the binary search tree with n elements. The time required to search given element is: _____**

Ans   ✔ A. O(log n)

       ✗ B. O(n log n)

       ✗ C. O(n² log n)

       ✗ D. O(n²)

Question ID : **59445917796**
Status : **Answered**
Chosen Option : **1**

Q.64 In Database management system ACID property refers to:

Ans ✗ A. Authenticity, Consistency, Isolation, and Durability

✗ B. Atomicity, Confidentiality, Isolation, and Durability

✓ C. Atomicity, Consistency, Isolation, and Durability

✗ D. Atomicity, Consistency, Integrity, and Durability

Question ID : **59445917837**
Status : **Answered**
Chosen Option : **3**

Q.65 Which of the following statement is true?

Ans ✓ A. Any logic expression can be implemented using only NAND gates

✗ B. Any logic expression can be implemented using only EXNOR gates

✗ C. Any logic expression can be implemented using only NOT gates

✗ D. Any logic expression can be implemented using only XOR gates

Question ID : **59445917756**
Status : **Answered**
Chosen Option : **1**

Q.66 Mutual Exclusion Problem occurs _____.

Ans ✗ A. between two processes that uses different resources of different machines.

✗ B. between two disjoint processes that do not interact

✓ C. among processes that share resources

✗ D. among processes that do not use the same resource

Question ID : **59445917823**
Status : **Answered**
Chosen Option : **3**

Q.67 The time complexity of searching an element in linked list of length n will be:

Ans ✗ A. O(n log n)

✗ B. O(log n)

✓ C. O(n)

✗ D. O(n^2)

Question ID : **59445917797**
Status : **Answered**
Chosen Option : **3**

Q.68 Consider the disk which has average seek time of 32 ns and rotational rate of 360 rpm (round per minute), Each track of the disk has 512 sectors, each of size 512 bytes.

What is the time taken to read four continuous sectors? And What is the data transfer rate?

Ans
✗ A. 0.0443s and 936 Kbps

✔ B. 0.0843s and 1536 Kbps

✗ C. 0.1043s and 1736 Kbps

✗ D. 0.0943s and 1636 Kbps

Question ID : **59445917827**
Status : **Answered**
Chosen Option : **1**

Q.69 MSB stands for:

Ans
✗ A. Middle significant bit

✗ B. Measured significant bit

✗ C. Maximum significant bit

✔ D. Most significant bit

Question ID : **59445917766**
Status : **Answered**
Chosen Option : **4**

Q.70 Which scheduling algorithm gives a minimum average waiting time?

Ans
✗ A. RR

✗ B. Priority

✔ C. SJF

✗ D. FCFS

Question ID : **59445917825**
Status : **Answered**
Chosen Option : **3**

Q.71 Consider the following statements

1. Insertion Sort and Merge Sort are stable.
2. Heap Sort is inherently unstable.
3. Selection Sort is not inherently stable, but may be coded in such a way that it is stable

Ans
✗ A. Only statement 1 is correct

✔ B. All statements are correct

✗ C. Statement 3 is not correct

✗ D. Only statement 1 and 2 is correct

Question ID : **59445917792**
Status : **Answered**
Chosen Option : **2**

Q.72 Which of the following statement is false?

Ans   ✗ A. Every regular language is also a context free language

  ✗ B. Every non deterministic Turing machine can be converted to an equivalent deterministic Turing machine

  ✔ C. Every subset of recursively enumerable set is recursive.

  ✗ D. Every NFA can be converted into equivalent DFA

Question ID : **59445917808**
Status : **Answered**
Chosen Option : **3**

Q.73 A Tuple Relational Calculus query is expressed as _____.

Ans   ✔ A. { T | p(T) }

  ✗ B. { P( ) | T)

  ✗ C. { p(T) | T }

  ✗ D. { T | P() | T}

Question ID : **59445917838**
Status : **Answered**
Chosen Option : **1**

Q.74 Consider the grammar

S → AbBaCc | ε
A → aAb | ba
B → bBC | cb
C → cCa |ac

Find the First ( ) of S

Ans   ✔ A. {a ,b, ε}

  ✗ B. {ε}

  ✗ C. {a,ε}

  ✗ D. {a ,b, c, ε}

Question ID : **59445917815**
Status : **Answered**
Chosen Option : **1**

Q.75 Calculate the link utilization (throughput) for stop and wait flow control mechanism if the frame size is 4800 bits, bit rate is 9600 bps, and distance between the devices is 2000 km. Given propagation speed is 200000 km/s.

Ans   ✗ A. 0.92

  ✗ B. 0.82

  ✔ C. 0.96

  ✗ D. 0.86

Question ID : **59445917848**
Status : **Answered**
Chosen Option : **3**

Q.76 Which is the correct method to obtained 10's compliment of a decimal number?

Ans ✗ A. The minuend is added to the 10's complement of the subtrahend and carry is dropped

✗ B. The 10's complement of a decimal number is equal to 9's complement of given number minus one

✗ C. The subtrahend is added to the 10's complement of the minuend and carry is dropped

✔ D. The 10's complement of a decimal number is equal to 9's complement of given number plus one

Question ID : **59445917764**
Status : **Answered**
Chosen Option : **4**

Q.77 Maximum throughput of slotted ALOHA network is:

Ans ✗ A. 18.4%

✔ B. 36.8%

✗ C. 50%

✗ D. 35.8%

Question ID : **59445917847**
Status : **Answered**
Chosen Option : **2**

Q.78 Which one of the following is True?

Ans ✗ A. Every regular grammar is LL (1) and every regular set does not have an LR (1) grammar

✗ B. Every regular grammar is not LL (1) and every regular set does not have an LR (1) grammar

✗ C. Every regular grammar is LL (1) and every regular has an LR (1) grammar

✔ D. Every regular grammar is not LL (1) and every regular set has an LR (1) grammar

Question ID : **59445917812**
Status : **Answered**
Chosen Option : **1**

Q.79 A computer uses RAM chips of 1024 x 1 capacity.

How many chips are needed to provide memory capacity of 16K bytes?

Ans ✗ A. 8

✗ B. 1024

✗ C. 16

✔ D. 128

Question ID : **59445917773**
Status : **Answered**
Chosen Option : **4**

Q.80 **Number of states in DFA accepting the following language is:**
L = { $a^n b^{2m}$ | n, m ≥ 1 }

Ans ✗ A. m

✗ B. n

✓ C. 5

✗ D. 2

Question ID : **59445917803**
Status : **Answered**
Chosen Option : **3**

Q.81 **Which of the following has lowest access time?**

Ans ✗ A. Main Memory

✗ B. Optical disk

✗ C. Cache

✓ D. Registers

Question ID : **59445917768**
Status : **Answered**
Chosen Option : **2**

Q.82 Which of the following is equivalent of the Boolean expression given below?

$$A + \bar{A}.B + A.\bar{B}$$

Ans ✓ A. $A + B$

✗ B. $A + \bar{B}$

✗ C. $B + \bar{A}$

✗ D. $\bar{B} + \bar{A}$

Question ID : **59445917760**
Status : **Answered**
Chosen Option : **1**

Q.83 **Which of the following is / are correct**

I. A language is context free if and only if it is accepted by PDA
II. PDA is a finite automata with push down stack

Ans ✗ A. Only II is true

✗ B. Both I and II are false

✓ C. Both I and II are true

✗ D. Only I is true

Question ID : **59445917805**
Status : **Answered**
Chosen Option : **3**

Q.84 With respect to deque which of the following is true?

Ans ✗ A. Insertion is done only from front end

✔ B. Insertion and deletion can be done at front and rear ends

✗ C. Deletion is done only from rear end

✗ D. Insertion is done only from rear end

Question ID : **59445917782**
Status : **Answered**
Chosen Option : **2**

Q.85 A negative edge triggered flip flop transfers data from input to output on the:

Ans ✗ A. LOW to HIGH transition of clock pulse

✗ B. BEFORE transition of clock pulse

✔ C. HIGH to LOW transition of clock pulse

✗ D. WITHOUT transition of clock pulse

Question ID : **59445917763**
Status : **Answered**
Chosen Option : **3**

Q.86 Consider the following relational schema
Sailors(sid, sname, rating, age)
Reserves(sid, bid, day)
Boats(bid, bname, color)

What is the equivalent of following relational algebra query in SQL query

$$\pi_{sname}((\sigma color='red'Boats) \bowtie Reserves \bowtie Sailors)$$

Ans ✗ A.
SELECT   S.sname, S.rating
FROM   Sailors S, Reserves R
WHERE   S.sid = R.sid AND R.bid = B.bid AND B.color = 'red'

✔ B.
SELECT   S.sname
FROM   Sailors S, Reserves R, Boats B
WHERE   S.sid = R.sid AND R.bid = B.bid AND B.color = 'red'

✗ C.
SELECT   S.sname
FROM   Sailors S, Reserves R, Boats B
WHERE   S.sid = R.sid AND B.color = 'red'

✗ D.
SELECT   S.sname
FROM   Sailors S, Reserves R, Boats B
WHERE   R.bid = B.bid AND B.color = 'red'

Question ID : **59445917840**
Status : **Answered**
Chosen Option : **2**

Q.87 What is the complexity of Merge Sort?

Ans

   ✗ A. O(n)

   ✗ B. $O(n^2 \log n)$

   ✓ C. $O(n \log n)$

   ✗ D. $O(n^2)$

> Question ID : **59445917795**
> Status : **Answered**
> Chosen Option : **3**

Q.88 _____ of graph is a vertex whose removal disconnects graph.

Ans

   ✗ A. Start vertex

   ✗ B. Middle point

   ✗ C. Terminal Vertex

   ✓ D. Articulation point / Cut vertex

> Question ID : **59445917800**
> Status : **Answered**
> Chosen Option : **4**

Q.89 Canonical SOP form of logic expression consists of only _____.

Ans

   ✗ A. Maxterms

   ✗ B. Laterals

   ✗ C. Cell

   ✓ D. Minterms

> Question ID : **59445917757**
> Status : **Answered**
> Chosen Option : **4**

Q.90 The following grammar is:
S → Aa | b A c | dc | bda
A → a

Ans

   ✗ A. Neither LALR(1) nor SLR(1)

   ✓ B. LALR(1) but not SLR(1)

   ✗ C. Not LALR(1) but SLR(1)

   ✗ D. LALR(1) and SLR(1)

> Question ID : **59445917813**
> Status : **Answered**
> Chosen Option : **4**

Q.91 A relation is in _____ form if every field contains only atomic values, that is, not lists or sets.

Ans
✔️ A. First normal

❌ B. Third normal

❌ C. Second normal

❌ D. Fourth normal

Question ID : **59445917842**
Status : **Answered**
Chosen Option : **1**

Q.92 In hashing, collision results when _____.

Ans
❌ A. an attempt is made to delete a record at full primary bucket.

✔️ B. an attempt is made to insert a record at full primary bucket.

❌ C. an attempt is made to insert a record anywhere in primary bucket.

❌ D. an attempt is made to insert a record at empty primary bucket.

Question ID : **59445917785**
Status : **Answered**
Chosen Option : **2**

Q.93 In SQL, the _____ command is used to recompile view.

Ans
✔️ A. ALTER VIEW

❌ B. COMPILE VIEW

❌ C. CREATE VIEW

❌ D. DEFINE VIEW

Question ID : **59445917845**
Status : **Answered**
Chosen Option : **2**

Q.94 The multiplicand register and multiplier register of hardware circuit implementing Booths algorithm have (11101) and (1100). The result shall be:

Ans
✔️ A. 812_{10}

❌ B. -812_{10}

❌ C. -12_{10}

❌ D. 12_{10}

Question ID : **59445917774**
Status : **Answered**
Chosen Option : **3**

Q.95 The _____ defines a set of operations on relations, paralleling the usual algebraic operations such as addition, subtraction or multiplication, which operate on numbers.

Ans   ✗ A. relational calculus

      ✗ B. referential integrity

      ✔ C. relational algebra

      ✗ D. relations

Question ID : **59445917832**
Status : **Answered**
Chosen Option : **3**

Q.96 The class of Context-free grammar is not closed under _____operations.

Ans   ✗ A. Concatenation

      ✔ B. Intersection

      ✗ C. Star

      ✗ D. Union

Question ID : **59445917801**
Status : **Answered**
Chosen Option : **2**

Q.97 Which of the following is a unary operation?

Ans   ✗ A. Intersection

      ✔ B. Projection

      ✗ C. Join

      ✗ D. Cartesian Product

Question ID : **59445917843**
Status : **Answered**
Chosen Option : **2**

Q.98 Which of the following statement is false about Prim's algorithm?

Ans   ✗ A. Initially the roots key and nodes are initialized to zero.

      ✔ B. It may use binomial max heap to represent the priority queue.

      ✗ C. The complexity is O(E log V) using binary heap

      ✗ D. The time complexity is O(E + V log V)using Fibonacci Heap

Question ID : **59445917798**
Status : **Answered**
Chosen Option : **1**

Q.99 Which of following problems are undecidable?

I. Membership problem in context-free languages
II. Whether a given context-free language is regular
III. Whether a finite state automation halts on all inputs
IV. Membership problem for type 0 languages

Ans ✗ A. III and IV

✗ B. I and IV

✗ C. I and II

✓ D. II and IV

Question ID : **59445917809**

Status : **Answered**

Chosen Option : **3**

Q.100 During DMA transfer, DMA controller transfers data _____.

Ans ✗ A. directly from CPU to Memory

✗ B. directly from memory to CPU

✗ C. directly between memory and registers

✓ D. directly between the I/O module and main memory

Question ID : **59445917769**

Status : **Answered**

Chosen Option : **4**