



GOVT. OF NCT OF DELHI
Delhi Subordinate Services Selection Board
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Participant ID	
Participant Name	
Test Center Name	
Test Date	08/09/2021
Test Time	8:30 AM - 10:30 AM
Subject	TGT Natural Science-(Male)

Section : General Ability

Q.1 Six friends Gagan, Iqbal, Jeetu, Krishna, Lalit and Manish are working in different companies. For example, A, B, C, D, E and F, but not necessarily in the same order. Each of them likes a different color viz- orange, green, blue, yellow, red, and white but not necessarily in the same order. Jeetu likes red color but does not work in company E or D. The one who likes Yellow works in Company B. Lalit works in company F and likes green color. Krishna does not like orange, yellow or blue color. The one who works in company C likes White. Gagan does not work in company C and Manish does not work in company E or D. Iqbal likes blue color but does not work in company D.

Who works in Company A?

- Ans
- 1. Manish
 - 2. Krishna
 - 3. Iqbal
 - 4. Jeetu

Question ID : 753229107

Q.2 Two statements are followed by two conclusions numbered I and II. You have to consider these statements to be true, even if they seem to be at variance with commonly known facts. Decide which of the given conclusions logically follow/s from the given statement.

Statement:

All neighbors are friends.
No friend is classmates.

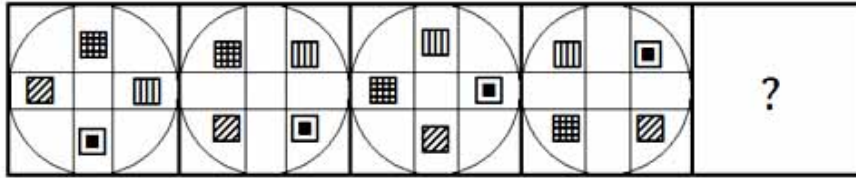
Conclusions:

(I) Some neighbors are classmates.
(II) No classmates is friend.

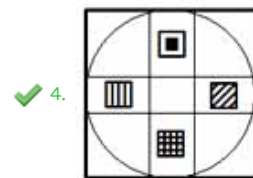
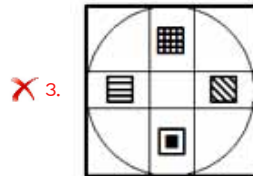
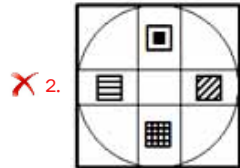
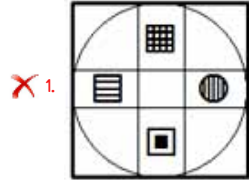
- Ans
- 1. Both I and II follow
 - 2. Only I follow
 - 3. Only II follows
 - 4. Neither I nor II follows

Question ID : 753229108

Q.3 Select the figure that will replace the question mark (?) in the following figure series.



Ans



Question ID : 7532291026

Q.4 Select the related number from the given alternatives.

GH : 78 : : DE : ?

Ans ✗ 1. 33

✗ 2. 36

✗ 3. 53

✓ 4. 45

Question ID : 7532291014

Q.5 Find the wrong term in the letter-cluster series given below :

KDXE, RIEJ, YNLO, FSSU, MXZY

Ans ✗ 1. RIEJ

✓ 2. FSSU

✗ 3. YNLO

✗ 4. MXZY

Question ID : 7532291011

Q.6 In the following question, select the related number from the given alternatives.

0.16 : 0.0016 :: 1.02 : ?

- Ans
- 1. 0.0102
 - 2. 0.102
 - 3. 1.020
 - 4. 10.20

Question ID : 7532291021

Q.7 In a row of children, who are facing north. Abhas is 19th from the left end and second to the right of Suresh, who is 17th from the right end. How many children are there in that row?

- Ans
- 1. 33
 - 2. 35
 - 3. 34
 - 4. 32

Question ID : 7532291016

Q.8 If KIND is coded as 8567, WATER is coded as 14329, what will be the code for TINDER?

- Ans
- 1. 356729
 - 2. 336792
 - 3. 356792
 - 4. 357629

Question ID : 7532291015

Q.9 From the given alternatives select the one in which the question figure is hidden/embedded.

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

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Question ID : 7532291027

Q.10 In the following figure, triangle represents international news, circle represents regional news, pentagon represents local news, rectangle represents political news and square represents economic news.

What does letter 'M' represents?

- Ans
- 1. Political news, local news, economic news and regional news but not international news
 - 2. International news, political news, local news and regional news but not economic news
 - 3. Economic news, political news, regional news and local news only
 - 4. International news, political news, economic news and regional news but not local news

Question ID : 7532291024

Q.11 In the following figure, triangle represents silver medal, circle represents gold medal, pentagon represents bronze medal, rectangle represents athletes and square represents cash prize.

What does letter 'C' represent?

- Ans
- 1. Athletes who got gold medal, silver medal and cash prize but not bronze medal.
 - 2. Athletes who got gold medal, bronze medal and cash prize but not silver medal
 - 3. Athletes who got silver medal, bronze medal and gold medal but not cash prize
 - 4. Athletes who got silver medal, bronze medal and cash prize but not gold medal

Question ID : 7532291025

Q.12 Three statements are followed by two conclusions numbered I and II. You have to consider these statements to be true, even if they seem to be at variance with commonly known facts. Decide which of the given conclusions logically follow/s from the given statement.

Statement:
All business are profit.
Some profit are sale.
Some sale are loss.

Conclusions:
(I) Some sale are profit.
(II) Some business are sale.

- Ans
- 1. Only I follow
 - 2. Neither I nor II follows
 - 3. Both I and II follow
 - 4. Only II follows

Question ID : 7532291019

Q.13 From the given alternatives select the one that will complete the question figure.

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

Question ID : 7532291030

Q.14 Find the missing term in the following letter-cluster series given below:

HN22, PT36, XZ50, ? , NL26

- Ans
- 1. FF11
 - 2. EF12
 - 3. FF12
 - 4. FE12

Question ID : 7532291012

Q.15 In the following question, select the missing number from the given series.

18, 31, 42, 49, 54, ?

- Ans
- 1. 57
 - 2. 56
 - 3. 62
 - 4. 60

Question ID : 7532291023

Q.16 Three statements are followed by three conclusions numbered I, II and III. You have to consider these statements to be true, even if they seem to be at variance with commonly known facts. Decide which of the given conclusions logically follow/s from the given statement.

Statement:

All animals are lion.
Some animals are camel.
No camel is deer.

Conclusions:

(I) Some animal are deer.
(II) No animal is deer.
(III) No deer are lion.

- Ans
- 1. Only I follow
 - 2. Only III follows
 - 3. Only II follows
 - 4. Either I or II follows

Question ID : 7532291020

Q.17 Four pairs of words are given. Find the odd one out.

- Ans
- 1. White : Snow
 - 2. Brown : Sky
 - 3. Green : Grass
 - 4. Red : Blood

Question ID : 7532291013

Q.18 Find the number of hexagon in the given figure.

- Ans
- 1. 6
 - 2. 5
 - 3. 7
 - 4. 8

Question ID : 7532291029

Q.19 From the given alternatives select the one which is the mirror image of given Question Figure .

- Ans 1.
 2.
 3.
 4.

Question ID : 7532291028

Q.20 In the question below, a statement is followed by two conclusions. Study the conclusions and select the correct option as the answer.

Statements:

$$A < M, O \leq M < B > Y \leq T$$

Conclusions:

- I. $A = O$
II. $Y < A$

- Ans 1. None follows
 2. Both follow
 3. Only II follows
 4. Only I follows

Question ID : 7532291022

Section : General Awareness

Q.1 Who is the first Asian to have been honoured with the Nobel Prize for Economics?

- Ans 1. Hargobind Khorana
 2. Amartya sen
 3. Chandrashekhar Venkataraman
 4. Mother Teresa

Question ID : 7532291050

Q.2 The Non-Cooperation Movement was pitched in under the leadership of _____ and the Indian National Congress from September 1920 to February 1922.

- Ans 1. Tanya Tope
 2. Mahatma Gandhi
 3. Nana Sahib
 4. Sardar vallabhbai patel

Question ID : 7532291035

Q.3 Where is Bahá'í Mashriqul-Adhkar, better known as the "Lotus Temple" located in India?

- Ans 1. Tamil Nadu
 2. Karnataka
 3. Gujarat
 4. New Delhi

Question ID : 7532291031

Q. 4 Which painting is also known as Mithila art?

- Ans
- 1. Pattachitra Painting
 - 2. Madhubani painting
 - 3. Warli Folk Painting
 - 4. Kalamezhuthu Painting

Question ID : 7532291032

Q. 5 _____ of a sound wave determines loudness of sound.

- Ans
- 1. Wavelength
 - 2. Frequency
 - 3. Speed
 - 4. Amplitude

Question ID : 7532291045

Q. 6 Which state became the first Indian state to provide reservation for transgenders in all government services?

- Ans
- 1. Karnataka
 - 2. Kerala
 - 3. Uttar Pradesh
 - 4. Himachal Pradesh

Question ID : 7532291037

Q. 7 According to Indian Bureau of Mines Report 2018, which among the following is the largest mica producing state in India?

- Ans
- 1. Karnataka
 - 2. Andhra Pradesh
 - 3. Maharashtra
 - 4. West Bengal

Question ID : 7532291044

Q. 8 Elaine Thompson-Herah is a _____.

- Ans
- 1. Badminton Player
 - 2. Sprinter
 - 3. Boxing Player
 - 4. Hockey Player

Question ID : 7532291049

Q. 9 _____ Gautama was the original name of Gautam Buddha.

- Ans
- 1. Shiva
 - 2. Sridhar
 - 3. Sushant
 - 4. Siddhartha

Question ID : 7532291034

Q. 10 The Union List includes subjects such as _____.

- Ans
- 1. Police, trade, agriculture and irrigation.
 - 2. Education, forests, trade unions, and succession
 - 3. Defence, foreign affairs, banking, currency, communication.
 - 4. Residuary subjects like computer software.

Question ID : 7532291048

Q. 11 Who is the head of the Municipal corporation of most states in India?

- Ans
- 1. Chief Minister
 - 2. Governor
 - 3. Mayor
 - 4. Prime minister

Question ID : 7532291042

Q. 12 A _____ is a paper instructing the bank to pay a specific amount from the person's account to the person in whose name the paper has been issued.

- Ans
- 1. Debit card
 - 2. Recurring deposit
 - 3. Cheque
 - 4. Fixed deposit

Question ID : 7532291047

Q. 13 The Vikramshila Wildlife Sanctuary is located in _____.

- Ans
- 1. Uttarakhand
 - 2. Bihar
 - 3. Rajasthan
 - 4. Kerala

Question ID : 7532291039

Q. 14 "The Iron Man Of India" is an epithet given to _____.

- Ans
- 1. Sardar Vallabhbhai Patel
 - 2. Jamshetji Tata
 - 3. Lala Lajpatrai
 - 4. Subhash Chandra Bose

Question ID : 7532291041

Q. 15 What is the SI unit of electrical resistance?

- Ans
- 1. Volt
 - 2. Ohm
 - 3. Ampere
 - 4. Mole

Question ID : 7532291046

Q. 16 BS Yediyurappa has recently resigned as the Chief Minister of which state?

- Ans
- 1. Himachal Pradesh
 - 2. Karnataka
 - 3. Assam
 - 4. Sikkim

Question ID : 7532291038

Q. 17 The Indian Wildlife Protection Act was implemented in the year _____.

- Ans
- 1. 1982
 - 2. 1980
 - 3. 1974
 - 4. 1972

Question ID : 7532291040

Q. 18 _____ is a classical dance form revitalised as a result of Mughal influence on Indian culture.

- Ans
- 1. Kathak
 - 2. Odissi
 - 3. Bharata Natyam
 - 4. Kuchipudi

Question ID : 7532291033

Q. 19 The Mughal Emperor Aurangzeb ruled for about _____ years.

- Ans
- 1. 50 years
 - 2. 20 years
 - 3. 40 years
 - 4. 30 years

Question ID : 7532291036

Q. 20 Vibrio cholerae is a _____ shaped pathogen.

- Ans
- 1. Comma
 - 2. Circular
 - 3. Spiral
 - 4. Rod

Question ID : 7532291043

Q.1 A retailer buys a computer at 30,000. If he spent some overhead expenses on it and sells the computer for 43750 at a profit of 25 percent. Overhead expenses are what per cent of cost price.

- Ans
- 1. 20 percent
 - 2. 16.67 percent
 - 3. 12.67 percent
 - 4. 15 percent

Question ID : 7532291057

Q.2 The following bar graph shows the distance (in km) between two cities and speeds (in km/hr) of a boy to cover the respective distances.

What is the average speed of the boy from city A to city F?

- Ans
- 1. 26.5 km/hr
 - 2. 21.78 km/hr
 - 3. 23.91 km/hr
 - 4. 19.47 km/hr

Question ID : 7532291070

Q.3 4 years ago age of A was 1.5 times of that of B and difference between their ages after 4 years will be 20 years, then what is the present age of A?

- Ans
- 1. 72 years
 - 2. 64 years
 - 3. 60 years
 - 4. 48 years

Question ID : 7532291061

Q.4 On decreasing the length and breadth of rectangle by 20 percent and 25 percent, respectively, the area of rectangle decreases by 200 cm^2 , then find the area of original rectangle.

- Ans
- 1. 500 cm^2
 - 2. 250 cm^2
 - 3. 300 cm^2
 - 4. 450 cm^2

Question ID : 7532291067

Q.5 By selling 16 pencils for Rs. 20, a man incurred a loss of 1 percent. How many pencils must he sell for Rs. 20 in order to make a gain of 32 percent ?

- Ans
- 1. 8
 - 2. 6
 - 3. 9
 - 4. 12

Question ID : 7532291058

Q.6 What value will come in place of question mark (?) in the following question?

$$(42^2 + 45) \div (30 + 37) = ? \times 3$$

- Ans
- 1. 9
 - 2. 11
 - 3. 12
 - 4. 8

Question ID : 7532291052

Q.7 A can do a certain work in 20 days and B can do the same work in 24 days. A works alone for 1 day, then B works alone for 2 days, then A works alone for 3 days, then B works alone for 4 days, and so on. On which day will the work be completed?

- Ans
- 1. 24th day
 - 2. 22nd day
 - 3. 20th day
 - 4. 23rd day

Question ID : 7532291065

Q.8 The given table shows the number of visits of doctors in a hospital and their per visit fees.
There is no visit on Saturday and Sunday.

The weekly income of a pediatrician from hospital is what percent more than the weekly income of a dentist from hospital?

- Ans
- 1. 6.85 percent
 - 2. 10.55 percent
 - 3. 8.25 percent
 - 4. 5.45 percent

Question ID : 7532291069

Q.9 A man has 15.4 kg potatoes. He divides them into two parts. From the first part, he makes ajiaco, aligot, aloo pie and uses potatoes in the ratio 2 : 3 : 4. From the second part, he makes cheese fries, chips, coddle and uses potatoes in the ratio 5 : 7 : 4. If he uses the same quantity of potatoes to make ajiaco and cheese fries, then find the quantity of potatoes to make coddle.

- Ans
- 1. 1.3 kg
 - 2. 1.6 kg
 - 3. 2.5 kg
 - 4. 2.1 kg

Question ID : 7532291060

Q.10 What value will come in place of question mark (?) in the following question?

- Ans
- 1. 40
 - 2. 49
 - 3. 42
 - 4. 44

Question ID : 7532291051

Q.11 The average output of n machines is k units per day. If one of the machines is excluded, whose output is 780 units per day, the average output will decrease by 30 units. Instead, if one dead machine is included, the average output will decrease by 90 units. What is the total output of n machines?

- Ans
- 1. 4020
 - 2. 3640
 - 3. 3900
 - 4. 3780

Question ID : 7532291055

Q.12 Arun lent Rs. 4000 in two parts. He lent each part for a year. He lent Rs. 2500 at 12 percent p.a. and the remaining at 10 percent p.a. simple interest. Find the effective rate of simple interest at which he lent the entire sum.

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

Question ID : 7532291062

Q.13 If efficiency of A is 20 percent more than B, B is 30 percent more efficient than C, then the efficiency ratio of A, B and C are respectively:

- Ans
- 1. 65 : 78 : 50
 - 2. 37 : 38 : 43
 - 3. 35 : 70 : 87
 - 4. 78 : 65 : 50

Question ID : 7532291066

Q.14 If a train running at a speed of 54 km/hr crosses a man standing on the platform in 32 seconds, then find the time taken by the train to cross a platform of length 720 metres.

- Ans
- 1. 90 seconds
 - 2. 72 seconds
 - 3. 80 seconds
 - 4. 64 seconds

Question ID : 7532291063

Q.15 A person takes a contract to construct a road. He constructs 20 percent of the road on the first day, 30 percent of the remaining road on the second day, 50 percent of the remaining road on the third day, and the rest 7 km road on the fourth day. What is the length of the road?

- Ans
- 1. 49 km
 - 2. 50 km
 - 3. 35 km
 - 4. 25 km

Question ID : 7532291056

Q. 16 A teacher used chalks to write on the board, which are in the shape of a frustum. The volume of the chalk is $1.89 \pi \text{ cm}^3$, the bigger radius is 0.6cm, and the smaller radius is 0.3 cm. What is the length of the chalk?

- Ans
- 1. 7 cm
 - 2. 6 cm
 - 3. 10 cm
 - 4. 9 cm

Question ID : 7532291068

Q. 17 An item is purchased at Rs. 720, when the item is sold to a customer, 10 percent. profit is earned, then at what price the item is sold?

- Ans
- 1. Rs. 828
 - 2. Rs. 792
 - 3. Rs. 756
 - 4. Rs. 864

Question ID : 7532291059

Q. 18 What value will come in place of question mark (?) in the following question?

- Ans
- 1. 9
 - 2. 6
 - 3. 11
 - 4. 7

Question ID : 7532291053

Q. 19 The L. C. M. of two different numbers are 30. Which of the following cannot be their H. C. F. ?

- Ans
- 1. 15
 - 2. 10
 - 3. 6
 - 4. 12

Question ID : 7532291054

Q. 20 Two cars P and Q start at the same time from A and B which are 240 km apart. If the two cars travel in opposite directions, they meet after 2 hour and if they travel in the same direction (from A towards B) P meets Q after 8 hours. What is the speed of the car P?

- Ans
- 1. 70 km/hr
 - 2. 80 km/hr
 - 3. 75 km/hr
 - 4. 60 km/hr

Question ID : 7532291064

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

No worker has ever tried to live in a _____ house.

- Ans
- 1. soldier's
 - 2. soldier
 - 3. soldier'
 - 4. soldiers'

Question ID : 7532291075

Q.2 Select the CORRECTLY spelt word.

- Ans
- 1. Arangement
 - 2. Arrangemant
 - 3. Arrangement
 - 4. Arrangement

Question ID : 7532291082

Q.3 One part of the sentence below may contain an error. Identify the part. If there is no error, choose 'No error'.

Once the floods sets in for two to three months, everything comes to a standstill in those districts.

- Ans
- 1. three months, everything comes
 - 2. Once the floods sets in for two to
 - 3. to a standstill in those districts.
 - 4. No error.

Question ID : 7532291072

Q.4 Select the word which means the same as the following group of the words.

Mental disturbance caused by an illness.

- Ans
- 1. Dilemma
 - 2. Discrepancy
 - 3. Diurnal
 - 4. Delirium

Question ID : 7532291085

Q.5 In the following question, out of the four given options, select the one that best expresses the meaning of the idiom/phrase.

To walk the tight rope

- Ans
- 1. Be an expert
 - 2. Be very nervous
 - 3. Be very cautious
 - 4. Be well trained

Question ID : 7532291084

Q.6 One part of the sentence below may contain an error. Identify the part. If there is no error, choose 'No error'.

If households feel financially inadequate and see greater risks to their wellbeing, they will not spend enthusiastic.

- Ans
- 1. not going to spend enthusiastic.
 - 2. No error.
 - 3. greater risks to their wellbeing, they are
 - 4. If households feel financially inadequate and see

Question ID : 7532291071

Q.7 In the following question, there are six sentences marked S1, S6, P, Q, R, and S. The positions of S1 and S6 are fixed. You are required to choose one of the four alternatives, which would be the most logical sequence of the sentence in the passage.

S1. Most of the people acquire
P. which makes them hesitant
Q. their ancestral culture and
R. to accept new ideas and theories of
S. tradition without questioning them,
S6. the changing world.

- Ans
- 1. SPRQ
 - 2. PQRS
 - 3. QRSP
 - 4. QSPR

Question ID : 7532291078

Q.8 Select the most appropriate antonym for the given word.

Rebuff

- Ans
- 1. Sob
 - 2. Approve
 - 3. High-spirited
 - 4. Bruise

Question ID : 7532291080

Q.9 Select the most appropriate option to substitute the underlined segment in the given sentence. If there is no need to substitute the underlined segment, select 'No improvement'.

Tea leaves is separate from the liquid with a strainer while preparing tea.

- Ans
- 1. was separate to
 - 2. No substitution required
 - 3. are separated from
 - 4. were separating to

Question ID : 7532291073

Q. 10 Select the most appropriate option to fill in the blanks.

The school teacher was angry _____ Naveen Kumar as he _____ not dressed properly.

- Ans
- 1. with, had
 - 2. with, having
 - 3. at, has
 - 4. upon, have

Question ID : 7532291077

Q. 11 Select the INCORRECTLY spelt word.

- Ans
- 1. stamina
 - 2. advisary
 - 3. phenomena
 - 4. tactic

Question ID : 7532291081

Q. 12 Select the most appropriate synonym for the given word.

Deceiving

- Ans
- 1. Misleading
 - 2. Stolid
 - 3. Composed
 - 4. Honest

Question ID : 7532291079

Q. 13 Select the most appropriate option to fill in the blanks.

Two images _____ to mind during the recent furious protests: alleged police _____ and tragic deaths.

- Ans
- 1. coming, brutal
 - 2. came, brutality
 - 3. came, brutal
 - 4. come, brutality

Question ID : 7532291076

Q. 14 In the following question, out of the four given options, select the one that best expresses the meaning of the idiom/phrase.

A plum job.

- Ans
- 1. A situation of having no job.
 - 2. An expression of good-luck.
 - 3. An easy pleasant job that also pays well.
 - 4. A difficult job with many hardships.

Question ID : 7532291083

Q.15 Select the most appropriate option to substitute the bracketed part in the given sentence. If there is no need to substitute the bracketed part, select 'No improvement'.

As she was (at a too great distance) to hear, I had to repeat every word.

- Ans
- 1. No Improvement
 - 2. at too great distance
 - 3. at a great distance
 - 4. at too great a distance

Question ID : 7532291074

Comprehension:

Read the following passage and answer the questions below.

The G-7 summit, at Carbis Bay, sent out two very strong messages. The first was driven by the United States' new President Joseph Biden and his vow that "America is back" to take the lead on global challenges. The G-7 commitment to donate one billion coronavirus vaccines to poorer countries and to invest \$12 trillion in their combined pandemic recovery plan depends on the U. S. commitments for a large part. The special communiqué on "Open Societies" for the G-7 outreach, and the invitation to "fellow democracies" India, Australia, South Korea and South Africa are also an extension of his stated commitment to convening a Democracy Summit this year.

Even the slogan for the G-7, "Build Back Better", was a White House term to declare America's economy and jobs recovery plan. The second message was the consensus amongst the seven-member countries on countering China. The final G-7 communiqué holds no less than four direct references to China, each negative, including criticising Beijing for its rights record in Xinjiang and democratic freedoms in Hong Kong, its "non-market policies and practices. . .", concerns over its actions in the China Seas, and a demand for a transparent investigation into the origins of the COVID-19 virus. Though the bonhomie among the G-7 leaders was palpable, the differences and contradictions in the grouping remain a challenge.

Even two decades ago, questions were raised about whether the grouping (earlier, the G-8), could claim its mantle as the world's "richest" countries, when emerging economies, China and India, are not included. On economic issues, the EU is a more representative unit than the individual European G-7 member countries. Finally, the premise of a group like the G-7, that of an exclusive club of the "haves" or "the best vs the rest", seems anachronistic in a world that is much more interlinked now than in 1975, when the grouping first came about. India, a special guest to the G-7/G-8 since 2003, has also maintained its independent course.

SubQuestion No : 16

Q.16 According to the passage, what was the second message of the G-7 summit?

- Ans
- 1. The consensus amongst the seven-member countries on countering China.
 - 2. Combined pandemic recovery plan in the world.
 - 3. To handle economic issues globally.
 - 4. Economy and jobs recovery plan in countries.

Question ID : 7532291087

Comprehension:

Read the following passage and answer the questions below.

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SubQuestion No : 17

Q.17 What does the word 'Bonhomie' mean in the given passage?

- Ans
- 1. In an opposing direction.
 - 2. The most contemptible kind of something.
 - 3. Shrewdness shown by keen insight.
 - 4. Friendliness and happiness.

Question ID : 7532291088

Comprehension:

Read the following passage and answer the questions below.

The G-7 summit, at Carbis Bay, sent out two very strong messages. The first was driven by the United States' new President Joseph Biden and his vow that "America is back" to take the lead on global challenges. The G-7 commitment to donate one billion coronavirus vaccines to poorer countries and to invest \$12 trillion in their combined pandemic recovery plan depends on the U.S. commitments for a large part. The special communiqué on "Open Societies" for the G-7 outreach, and the invitation to "fellow democracies" India, Australia, South Korea and South Africa are also an extension of his stated commitment to convening a Democracy Summit this year.

Even the slogan for the G-7, "Build Back Better", was a White House term to declare America's economy and jobs recovery plan. The second message was the consensus amongst the seven-member countries on countering China. The final G-7 communiqué holds no less than four direct references to China, each negative, including criticising Beijing for its rights record in Xinjiang and democratic freedoms in Hong Kong, its "non-market policies and practices. . .", concerns over its actions in the China Seas, and a demand for a transparent investigation into the origins of the COVID-19 virus. Though the bonhomie among the G-7 leaders was palpable, the differences and contradictions in the grouping remain a challenge.

Even two decades ago, questions were raised about whether the grouping (earlier, the G-8), could claim its mantle as the world's "richest" countries, when emerging economies, China and India, are not included. On economic issues, the EU is a more representative unit than the individual European G-7 member countries. Finally, the premise of a group like the G-7, that of an exclusive club of the "haves" or "the best vs the rest", seems anachronistic in a world that is much more interlinked now than in 1975, when the grouping first came about. India, a special guest to the G-7/G-8 since 2003, has also maintained its independent course.

SubQuestion No : 18

Q.18 According to the passage, on economic issues, which one is a more representative unit than the individual European G-7 member countries?

- Ans
- 1. India
 - 2. The USA
 - 3. The EU
 - 4. China

Question ID : 7532291091

Comprehension:

Read the following passage and answer the questions below.

The G-7 summit, at Carbis Bay, sent out two very strong messages. The first was driven by the United States' new President Joseph Biden and his vow that "America is back" to take the lead on global challenges. The G-7 commitment to donate one billion coronavirus vaccines to poorer countries and to invest \$12 trillion in their combined pandemic recovery plan depends on the U.S. commitments for a large part. The special communiqué on "Open Societies" for the G-7 outreach, and the invitation to "fellow democracies" India, Australia, South Korea and South Africa are also an extension of his stated commitment to convening a Democracy Summit this year.

Even the slogan for the G-7, "Build Back Better", was a White House term to declare America's economy and jobs recovery plan. The second message was the consensus amongst the seven-member countries on countering China. The final G-7 communiqué holds no less than four direct references to China, each negative, including criticising Beijing for its rights record in Xinjiang and democratic freedoms in Hong Kong, its "non-market policies and practices. . .", concerns over its actions in the China Seas, and a demand for a transparent investigation into the origins of the COVID-19 virus. Though the bonhomie among the G-7 leaders was palpable, the differences and contradictions in the grouping remain a challenge.

Even two decades ago, questions were raised about whether the grouping (earlier, the G-8), could claim its mantle as the world's "richest" countries, when emerging economies, China and India, are not included. On economic issues, the EU is a more representative unit than the individual European G-7 member countries. Finally, the premise of a group like the G-7, that of an exclusive club of the "haves" or "the best vs the rest", seems anachronistic in a world that is much more interlinked now than in 1975, when the grouping first came about. India, a special guest to the G-7/G-8 since 2003, has also maintained its independent course.

SubQuestion No : 19

Q.19 According to the given passage, what was the slogan for the G-7?

- Ans
- 1. The best vs the rest.
 - 2. The haves and have-nots.
 - 3. Open Societies
 - 4. Build Back Better

Question ID : 7532291090

Comprehension:

Read the following passage and answer the questions below.

The G-7 summit, at Carbis Bay, sent out two very strong messages. The first was driven by the United States' new President Joseph Biden and his vow that "America is back" to take the lead on global challenges. The G-7 commitment to donate one billion coronavirus vaccines to poorer countries and to invest \$12 trillion in their combined pandemic recovery plan depends on the U.S. commitments for a large part. The special communiqué on "Open Societies" for the G-7 outreach, and the invitation to "fellow democracies" India, Australia, South Korea and South Africa are also an extension of his stated commitment to convening a Democracy Summit this year.

Even the slogan for the G-7, "Build Back Better", was a White House term to declare America's economy and jobs recovery plan. The second message was the consensus amongst the seven-member countries on countering China. The final G-7 communiqué holds no less than four direct references to China, each negative, including criticising Beijing for its rights record in Xinjiang and democratic freedoms in Hong Kong, its "non-market policies and practices. . .", concerns over its actions in the China Seas, and a demand for a transparent investigation into the origins of the COVID-19 virus. Though the bonhomie among the G-7 leaders was palpable, the differences and contradictions in the grouping remain a challenge.

Even two decades ago, questions were raised about whether the grouping (earlier, the G-8), could claim its mantle as the world's "richest" countries, when emerging economies, China and India, are not included. On economic issues, the EU is a more representative unit than the individual European G-7 member countries. Finally, the premise of a group like the G-7, that of an exclusive club of the "haves" or "the best vs the rest", seems anachronistic in a world that is much more interlinked now than in 1975, when the grouping first came about. India, a special guest to the G-7/G-8 since 2003, has also maintained its independent course.

SubQuestion No : 20

Q.20 The term 'Build Back Better' represents-

- Ans
- 1. Coronavirus vaccines to poorer countries.
 - 2. An exclusive group.
 - 3. America's economy and jobs recovery plan.
 - 4. The current challenges at world level.

Question ID : 7532291089

Q.1 निम्नलिखित में से शुद्ध वर्तनी वाले वाक्य का चयन कीजिए-

- Ans
- 1. हमारे यहां नवयुवकों की शिक्षा की अच्छी व्यवस्था है।
 - 2. आपस में मिलकर परस्पर सहयोग करो।
 - 3. आप कभी भी किसी समय हमारे घर आएं।
 - 4. आज कई अनेक अपराधी गिरफ्तार किए गए।

Question ID : 7532291103

Q.2 दिए गए निश्चयवाचक वाक्य को प्रश्नवाचक वाक्य में परिवर्तन कर सही प्रश्नवाचक वाक्य का चयन कीजिए-

मोहन किसी न किसी तरह से उत्तीर्ण हो गया।

- Ans
- 1. मोहन ऐसे कैसे उत्तीर्ण हो गया?
 - 2. मोहन किसी न किसी तरह से अनुत्तीर्ण हो गया।
 - 3. मोहन कैसे अनुत्तीर्ण हो सकता है?
 - 4. मोहन कैसे उत्तीर्ण हो गया?

Question ID : 7532291102

Q.3 निम्नलिखित में से शब्द के शुद्ध रूप/ वर्तनी का चयन कीजिए-

- Ans
- 1. दर्शनाभीलाषी
 - 2. दर्शनाभिलाषी
 - 3. दर्शनभिलाषी
 - 4. दर्शनअभिलाशी

Question ID : 7532291097

Q.4 निम्नलिखित में से "निरर्थक" का पर्यायवाची शब्द कौन-सा है?

- Ans
- 1. सार्थक
 - 2. सफल
 - 3. बेकार
 - 4. सिद्ध

Question ID : 7532291096

Q.5 निम्नलिखित में से "उन्मूलन" का विलोम शब्द कौन-सा है?

- Ans
- 1. तिमिर
 - 2. रोपण
 - 3. उद्देग
 - 4. पतन

Question ID : 7532291098

Q.6 निम्नलिखित में से स्त्रीलिंग शब्द का चयन कीजिए-

- Ans
- 1. विद्यापीठ
 - 2. समुदाय
 - 3. प्राधिकरण
 - 4. राज्यसभा

Question ID : 7532291101

Q.7 दिए गए शब्द-युग्म के सही अर्थ-भेद का चयन कीजिए-

उद्धार - उधार

- Ans
- 1. चकवा पक्षी- रचना
 - 2. कर्ज- उधार
 - 3. कंजूस - कल्याण
 - 4. कष्ट से मुक्ति - कर्ज

Question ID : 7532291099

Q.8 शब्द "तिरस्कार" का सही विशेषण रूप निम्नलिखित में से कौन-सा है?

- Ans
- 1. तिलस्मी
 - 2. तिलस्म
 - 3. तिरस्कृत
 - 4. तिरस्कारवाला

Question ID : 7532291095

Q.9 निम्नलिखित में से किस वाक्य में उद्धरण चिन्ह का प्रयोग किया गया है?

- Ans
- 1. अच्छा, तो चला जाय।
 - 2. आकाश में काले - काले बादल छा गए; बिजली चमकने लगी; बादल गरजने लगे और वर्षा की बूंदें टप - टप धरती पर गिरने लगीं।
 - 3. कम-से-कम, ज्यादा-से-ज्यादा।
 - 4. "रघुकुल रीति सदा चली आई। प्राण जाय पर वचन न जाई।"

Question ID : 7532291106

Q.10 निम्नलिखित में से सम्बोधन कारक की सही विभक्ति का चयन कीजिए-

- Ans
- 1. हे, अजी, अहो एवं अरे
 - 2. से, के द्वारा
 - 3. का, के, की
 - 4. में, पर

Question ID : 7532291100

Q.11 निम्नलिखित में से "सहानुभूति" का सही संधि-विच्छेद कौन-सा है?

- Ans
- 1. सह + अनुभूति
 - 2. सहान + अनुभूति
 - 3. सः + अनुभूति
 - 4. सहानु + भूति

Question ID : 7532291092

Q.12 निम्नलिखित में से कौन-सा शब्द बहुव्रीहि समास का सही उदाहरण है?

- Ans
- 1. सुखदुख
 - 2. आपबीती
 - 3. वीणापाणि
 - 4. कमलनयन

Question ID : 7532291094

Q.13 निम्नलिखित में से मुहावरा "जॉक होकर लिपटना" का क्या अर्थ है?

- Ans
- 1. किसी प्रकार की बीमारी से पीड़ित होना।
 - 2. विरत होना
 - 3. बुरी तरह पीछे पड़ना।
 - 4. जान-बूझकर अन्याय सहना।

Question ID : 7532291104

Q.14 निम्नलिखित में से रूढ़ शब्द का चयन कीजिए-

- Ans
- 1. मत
 - 2. बुद्धिमान
 - 3. पनघट
 - 4. फलवाला

Question ID : 7532291093

Q.15 निम्नलिखित में से किस लोकोक्ति का अर्थ "किसी भी उपाय से स्वभाव नहीं बदलता" है?

- Ans
- 1. खरबूजे को देखकर खरबूजा रंग बदलता है।
 - 2. कखरी लरका गॉंव गोहार।
 - 3. कानी के ब्याह को सौ जोखो।
 - 4. गधा धोने से बछड़ा नहीं हो जाता।

Question ID : 7532291105

Comprehension:

निम्नलिखित गद्यांश का ध्यानपूर्वक अध्ययन कर प्रश्नों के उत्तर दीजिए-

सामान्यतः दुष्टों की वंदना में या तो भय रहता है या व्यंग्य, परंतु जहां हम हानि होने के पहले ही हानि के कारण की वंदना करने लगते हैं वहां हमारी वंदना के मूल में भय नहीं बल्कि उसकी स्थाई दशा की आशंका है। इस वंदना में दुष्टों को थपकी देकर सुलाने की चाल है जिसमें विघ्न बाधाओं से जान बच सके। आशंका से उत्पन्न या नम्रता गोस्वामी जी को आश्रय से आलंबन बना देती है। जब स्फुट अंशों के संचारी भावों तथा अनुभवों को छोड़कर वंदना के पीछे निहित भावना की दृष्टि से देखते हैं, तो यह आश्रय से संक्रमित आलंबन का उदाहरण बन जाता है। संतों, देवताओं तथा राम की वंदना पर्याप्त नहीं इसलिए दुष्टों की भी वंदना की जाती है। इससे दुष्टों के महत्व की भायिक सृष्टि होती है और वह उन्हें और भी उपहास्य बना देती है।

SubQuestion No : 16

Q. 16 उपर्युक्त गद्यांश के अनुसार, कौन-सा कथन पूर्णतः सही है?

- Ans
- 1. संतों, देवताओं तथा राम की वंदना पर्याप्त है, इसलिए दुष्टों की भी वंदना नहीं की जाती है। इससे दुष्टों के महत्व की भायिक सृष्टि होती है और वह उन्हें और भी उपहास्य बना देती है।
 - 2. संतों, देवताओं तथा राम की वंदना पर्याप्त नहीं इसलिए दुष्टों की भी वंदना की जाती है। इससे दुष्टों के महत्व की भायिक सृष्टि होती है और वह उन्हें और भी उपहास्य बना देती है।
 - 3. संतों, देवताओं तथा राम की वंदना पर्याप्त नहीं इसलिए दुष्टों की भी वंदना की जाती है। इससे दुष्टों के महत्व की भायिक दृष्टि होती है और वह उन्हें और भी खतरनाक बना देती है।
 - 4. संतों, देवताओं तथा राम की वंदना पर्याप्त नहीं है इसलिए दुष्टों की भी वंदना नहीं की जाती है। इससे दुष्टों के महत्व की भायिक सृष्टि होती है और वह उन्हें और भी उपहास्य बना देती है।

Question ID : 7532291111

Comprehension:

निम्नलिखित गद्यांश का ध्यानपूर्वक अध्ययन कर प्रश्नों के उत्तर दीजिए-

सामान्यतः दुष्टों की वंदना में या तो भय रहता है या व्यंग्य, परंतु जहां हम हानि होने के पहले ही हानि के कारण की वंदना करने लगते हैं वहां हमारी वंदना के मूल में भय नहीं बल्कि उसकी स्थाई दशा की आशंका है। इस वंदना में दुष्टों को थपकी देकर सुलाने की चाल है जिसमें विघ्न बाधाओं से जान बच सके। आशंका से उत्पन्न या नम्रता गोस्वामी जी को आश्रय से आलंबन बना देती है। जब स्फुट अंशों के संचारी भावों तथा अनुभवों को छोड़कर वंदना के पीछे निहित भावना की दृष्टि से देखते हैं, तो यह आश्रय से संक्रमित आलंबन का उदाहरण बन जाता है। संतों, देवताओं तथा राम की वंदना पर्याप्त नहीं इसलिए दुष्टों की भी वंदना की जाती है। इससे दुष्टों के महत्व की भायिक सृष्टि होती है और वह उन्हें और भी उपहास्य बना देती है।

SubQuestion No : 17

Q. 17 निम्नलिखित में से श्रृंगार रस का स्थायी भाव क्या है?

- Ans
- 1. रति
 - 2. हास्य
 - 3. वात्सल्य
 - 4. जुगुप्सा

Question ID : 7532291110

Comprehension:

निम्नलिखित गद्यांश का ध्यानपूर्वक अध्ययन कर प्रश्नों के उत्तर दीजिए-

सामान्यतः दुष्टों की वंदना में या तो भय रहता है या व्यंग्य, परंतु जहां हम हानि होने के पहले ही हानि के कारण की वंदना करने लगते हैं वहां हमारी वंदना के मूल में भय नहीं बल्कि उसकी स्थाई दशा की आशंका है। इस वंदना में दुष्टों को थपकी देकर सुलाने की चाल है जिसमें विघ्न बाधाओं से जान बच सके। आशंका से उत्पन्न या नम्रता गोस्वामी जी को आश्रय से आलंबन बना देती है। जब स्फुट अंशों के संचारी भावों तथा अनुभवों को छोड़कर वंदना के पीछे निहित भावना की दृष्टि से देखते हैं, तो यह आश्रय से संक्रमित आलंबन का उदाहरण बन जाता है। संतों, देवताओं तथा राम की वंदना पर्याप्त नहीं इसलिए दुष्टों की भी वंदना की जाती है। इससे दुष्टों के महत्व की भायिक सृष्टि होती है और वह उन्हें और भी उपहास्य बना देती है।

SubQuestion No : 18

Q. 18 उपर्युक्त गद्यांश में निम्नलिखित में से किस शब्द का प्रयोग नहीं किया गया है?

- Ans
- 1. आलंबन
 - 2. अनाश्रय
 - 3. भावना
 - 4. वंदना

Question ID : 7532291112

Comprehension:

निम्नलिखित गद्यांश का ध्यानपूर्वक अध्ययन कर प्रश्नों के उत्तर दीजिए-

सामान्यतः दुष्टों की वंदना में या तो भय रहता है या व्यंग्य, परंतु जहां हम हानि होने के पहले ही हानि के कारण की वंदना करने लगते हैं वहां हमारी वंदना के मूल में भय नहीं बल्कि उसकी स्थाई दशा की आशंका है। इस वंदना में दुष्टों को थपकी देकर सुलाने की चाल है जिसमें विघ्न बाधाओं से जान बच सके। आशंका से उत्पन्न या नम्रता गोस्वामी जी को आश्रय से आलंबन बना देती है। जब स्फुट अंशों के संचारी भावों तथा अनुभवों को छोड़कर वंदना के पीछे निहित भावना की दृष्टि से देखते हैं, तो यह आश्रय से संक्रमित आलंबन का उदाहरण बन जाता है। संतों, देवताओं तथा राम की वंदना पर्याप्त नहीं इसलिए दुष्टों की भी वंदना की जाती है। इससे दुष्टों के महत्व की भायिक सृष्टि होती है और वह उन्हें और भी उपहास्य बना देती है।

SubQuestion No : 19

Q. 19 उपर्युक्त गद्यांश के अनुसार, दुष्ट वंदना के पीछे लेखक का क्या उद्देश्य है?

- Ans
- 1. दुष्टों को भी परस्पर सम्मान दिलाना।
 - 2. दुष्टों को थपकी देकर सुलाना।
 - 3. दुष्टों को भी वंदना का आर्शीवाद देना।
 - 4. दुष्टों को लाभ पहुंचाना।

Question ID : 7532291109

Comprehension:

निम्नलिखित गद्यांश का ध्यानपूर्वक अध्ययन कर प्रश्नों के उत्तर दीजिए-

सामान्यतः दुष्टों की वंदना में या तो भय रहता है या व्यंग्य, परंतु जहां हम हानि होने के पहले ही हानि के कारण की वंदना करने लगते हैं वहां हमारी वंदना के मूल में भय नहीं बल्कि उसकी स्थाई दशा की आशंका है। इस वंदना में दुष्टों को थपकी देकर सुलाने की चाल है जिसमें विघ्न बाधाओं से जान बच सके। आशंका से उत्पन्न या नम्रता गोस्वामी जी को आश्रय से आलंबन बना देती है। जब स्फुट अंशों के संचारी भावों तथा अनुभवों को छोड़कर वंदना के पीछे निहित भावना की दृष्टि से देखते हैं, तो यह आश्रय से संक्रमित आलंबन का उदाहरण बन जाता है। संतों, देवताओं तथा राम की वंदना पर्याप्त नहीं इसलिए दुष्टों की भी वंदना की जाती है। इससे दुष्टों के महत्व की भायिक सृष्टि होती है और वह उन्हें और भी उपहास्य बना देती है।

SubQuestion No : 20

Q.20 उपर्युक्त गद्यांश के लिए निम्न में से सर्वाधिक उचित शीर्षक का चयन कीजिए-

- Ans
- 1. तुलसीदास जी की रचनाएं।
 - 2. तुलसीदास जी का जीवन परिचय।
 - 3. गोस्वामी तुलसीदास जी का मानीय दृष्टिकोण।
 - 4. वंदना का महत्व।

Question ID : 7532291108

Section : Discipline1

Q.1 Find the work done by the force of gravity during the time a particle of mass 60 gm goes up on being thrown vertically upwards with a speed of 10m/s.

- Ans
- 1. -3.5 J
 - 2. -3.0 J
 - 3. -2.5 J
 - 4. -4.0 J

Question ID : 7532291123

Q.2 Which of the following statements is incorrect?

- Ans
- 1. The resistance of wire is a constant for a given wire.
 - 2. The resistance of the wire is directly proportional to the length of the wire.
 - 3. The resistance of a wire can never be negative.
 - 4. The resistance of the wire is directly proportional to the cross-sectional area of the wire.

Question ID : 7532291114

Q.3 _____ of an eye contains about 1 million optic nerve fibres (which transmit information to the brain).

- Ans
- 1. Lens
 - 2. Cornea
 - 3. Pupil
 - 4. Retina

Question ID : 7532291127

Q.4 Which of the following is true about a solid floating with a part of it in the fluid?

1. The overall density of the solid is greater than the density of the fluid.
2. The weight of the displaced fluid equals the weight of the solid.

Choose the correct code:

Ans

- 1. Only 2
- 2. Neither 1 nor 2
- 3. Both 1 and 2
- 4. Only 1

Question ID : 7532291125

Q.5 Which of the following statements is/are true?

1. The disturbance produced by source of sound is always a sine wave.
2. The disturbance produced by source of sound is never a sine wave.
3. The disturbance produced by source of sound is not always a sine wave.
4. A pure sine wave has a unique frequency.

Choose the correct code:

Ans

- 1. Only 1 and 4
- 2. Only 2 and 4
- 3. Only 4
- 4. Only 3 and 4

Question ID : 7532291130

Q.6 Which of the following statements is incorrect?

Ans

- 1. The current produced by a battery is DC (Direct Current).
- 2. People who accidentally come in contact with AC are flung afar.
- 3. Devices like electric motor that work on DC are stronger than those that use AC.
- 4. The current that flows out from the switch points at homes is AC (Alternating Current).

Question ID : 7532291115

Q.7

Ans

- 1.
- 2.
- 3.
- 4.

Question ID : 7532291132

Q.8 The appearance of sound to a human ear is objectively characterised by which of the following parameters?

1. Frequency
2. Intensity
3. Waveform

Choose the correct code:

Ans

- 1. Only 2 and 3
- 2. Only 1 and 3
- 3. Only 1 and 2
- 4. 1, 2 and 3

Question ID : 7532291129

Q. 9 How can biomass be used as a source of energy?
1. by burning dry biomass
2. by decomposition of biomass in the absence of oxygen
Choose the correct code:

- Ans
- 1. Neither 1 nor 2
 - 2. Only 1
 - 3. Both 1 and 2
 - 4. Only 2

Question ID : 7532291121

Q. 10 An elevator weighing 500kg is to be lifted up at a constant velocity of 0.25 m/s. What would be the minimum horsepower of the motor to be used? $G = 9.8 \text{ m/s}^2$ and there is no frictional loss.

- Ans
- 1. 1.0 hp
 - 2. 2.0 hp
 - 3. 1.64 hp
 - 4. 1.92 hp

Question ID : 7532291124

Q. 11 Which of the following statements is NOT correct regarding generation of wind power?

- Ans
- 1. The wind speed is vital in the production of electricity.
 - 2. The blades of the windmill are angled into the wind.
 - 3. The turbine converts mechanical energy into electrical energy.
 - 4. In older windmills, wind energy was used to run machinery to do physical work, like crushing grain or pumping water.

Question ID : 7532291120

Q. 12 While generating ocean thermal energy, which of the following types of liquids is boiled by the warm ocean water?

- Ans
- 1. Volatile liquid
 - 2. Acidic liquid
 - 3. Basic liquid
 - 4. Non-volatile liquid

Question ID : 7532291118

Q. 13 Which of the following is/are true?
1. The power of a converging lens is positive.
2. The power of a diverging lens is negative.
Choose the correct code:

- Ans
- 1. Neither 1 nor 2
 - 2. Only 1
 - 3. Both 1 and 2
 - 4. Only 2

Question ID : 7532291128

Q.14 Naturally occurring stones which were earlier found to be able to attract iron and nickel like other substances were called -

- Ans
- 1. Magnetrons
 - 2. Lodestones
 - 3. Magnastones
 - 4. Loderons

Question ID : 7532291117

Q.15 In an alpha particle the protons will repel each other due to _____ force.

- Ans
- 1. Electromagnetic
 - 2. Gravitational
 - 3. Nuclear
 - 4. Coulomb

Question ID : 7532291131

Q.16 In which year did Michael Faraday make the discovery of Electromagnetic Induction?

- Ans
- 1. 1831
 - 2. 1908
 - 3. 1789
 - 4. 1896

Question ID : 7532291116

Q.17 A 900 gm solid cube having an edge of length 10cm floats in water. How much volume of the cube is outside the water? Density of the water 1000 kgm^{-3} .

- Ans
- 1. 200 cm^3
 - 2. 100 cm^3
 - 3. 110 cm^3
 - 4. 150 cm^3

Question ID : 7532291122

Q.18 Which of the following is NOT an advantage of nuclear energy?

1. No waste gases are produced when electricity is produced out of nuclear sources.
2. There is no scope of leakage of harmful radiations.

Choose the correct code:

- Ans
- 1. Only 2
 - 2. Both 1 and 2
 - 3. Neither 1 nor 2
 - 4. Only 1

Question ID : 7532291119

Q.19 Which of the following statements is correct?
1. A 40W-220 V bulb has a higher resistance than a 1 kW-220 V electric heater.
2. The maximum current that a 100W-220 V lamp can withstand is 0.45 A.
Choose the correct code:

- Ans
- 1. Neither 1 nor 2
 - 2. Only 1
 - 3. Only 2
 - 4. Both 1 and 2

Question ID : 7532291113

Q.20 The amount of light entering the eye may be controlled by varying the aperture of the pupil with the help of _____.

- Ans
- 1. Cornea
 - 2. Iris
 - 3. Aqueous humour
 - 4. Retina

Question ID : 7532291126

Section : Discipline2

Q.1 Which of the following is true?
1. Hydrogen ions in HCl are produced in the presence of water.
2. Hydrogen ions can exist alone.
Choose the correct code:

- Ans
- 1. Only 1
 - 2. Only 2
 - 3. Neither 1 nor 2
 - 4. Both

Question ID : 7532291144

Q.2 Nonmetallic oxides are _____ in nature.

- Ans
- 1. Neutral
 - 2. Extremely basic
 - 3. Acidic
 - 4. Mildly Basic

Question ID : 7532291143

Q.3 Which of the following statement is false regarding the formation of bonds between oxygen atoms?
1. We see the formation of a double bond between two oxygen atoms
2. This is because an atom of oxygen has four electrons in its L shell (the atomic number of oxygen is eight) and it requires four more electrons to complete its octet.

- Ans
- 1. Only 2
 - 2. Only 1
 - 3. Neither 1 nor 2
 - 4. Both

Question ID : 7532291151

Q.4 Out of the 118 elements known to us how many are naturally occurring?

- Ans
- 1. 22
 - 2. 94
 - 3. 90
 - 4. 49

Question ID : 7532291152

Q.5 In order to attain an octet, each nitrogen atom in a molecule of nitrogen contributes (i)_____ electrons giving rise to (ii)_____ shared pairs of electrons.

- Ans
- 1. (i) three, (ii) three
 - 2. (i) four , (ii) three
 - 3. (i) five, (ii) four
 - 4. (i) four, (ii) four

Question ID : 7532291150

Q.6 Which of the following is correct?
1. Most non-metals produce basic oxides.
2. Most metals produce acidic oxides.
Choose the correct code:

- Ans
- 1. Neither 1 nor 2
 - 2. Only 1
 - 3. Only 2
 - 4. Both

Question ID : 7532291148

Q.7 Which of the following is the maximum acceleration of the bus in which a box lying on its floor will remain stationary, given that the co-efficient of static friction between the box and the bus's floor is 0.14 and $g = 10 \text{ ms}^{-2}$?

- Ans
- 1. 2.8 ms^{-2}
 - 2. 1.4 ms^{-2}
 - 3. 14 ms^{-2}
 - 4. 4.2 ms^{-2}

Question ID : 7532291134

Q.8 A batsman hits back a ball straight in the direction of the bowler without changing its initial speed of 10 ms^{-1} . If the mass of the ball is 0.12 kg, determine the impulse imparted to the ball. (Assume linear motion of the ball).

- Ans
- 1. 11.4 N s
 - 2. 9.4 N s
 - 3. 3.6 N s
 - 4. 2.4 N s

Question ID : 7532291135

Q. 9 'Heating a china dish containing copper powder makes the copper powder become coated with a black substance.' Which of the following equations is a correct translation of the statement?

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

Question ID : 7532291142

Q. 10 Which of the following statement is true regarding the phenomenon known as mirage?

- Ans
- 1. Light from a tall object such as a tree, passes through a medium whose refractive index increases towards the ground.
 - 2. If the air is still, the optical density at different layers of air decreases with height.
 - 3. The refractive index of air decreases with its density.
 - 4. The image formed is always inverted.

Question ID : 7532291139

Q. 11 An isotope of _____ is used as a fuel in nuclear reactors.

- Ans
- 1. Iodine
 - 2. Hydrogen
 - 3. Uranium
 - 4. Cobalt

Question ID : 7532291141

Q. 12 Frequencies higher than _____ are called ultrasonic sound or ultrasound.

- Ans
- 1. 20 Hz
 - 2. 10 kHz
 - 3. 30 Hz
 - 4. 20 kHz

Question ID : 7532291133

Q. 13 Which of the following statements is NOT true?

- Ans
- 1. The fuse wire has high resistance than that of electrical wire.
 - 2. The fuse wire has its melting point lower than that of electrical wire.
 - 3. The fuse wire is connected to the main source in parallel.
 - 4. A piece of wire made of lead and tin alloy is used in making fuse.

Question ID : 7532291138

Q. 14 Where can we find Methanoic Acid in nature?

- Ans
- 1. Ant sting
 - 2. Vinegar
 - 3. Tamarind
 - 4. Sour Milk

Question ID : 7532291145

Q. 15 Which of the following is a non-metal that can exist in different forms?

- Ans
- 1. Lithium
 - 2. Carbon
 - 3. Gallium
 - 4. Iodine

Question ID : 7532291147

Q. 16 The field lines inside the solenoid are in the form of _____.

- Ans
- 1. Parallel straight lines.
 - 2. Intersecting curved lines.
 - 3. Straight lines that intersect each other multiple times.
 - 4. Parallel curved lines.

Question ID : 7532291137

Q. 17 Two different atoms or groups of atoms (ions) are exchanged in _____ reactions.

- Ans
- 1. Single displacement
 - 2. Rancidity
 - 3. Double displacement
 - 4. Corrosion

Question ID : 7532291140

Q. 18 Which of the following units of pressure has the correct value?

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

Question ID : 7532291136

Q. 19 Which among the following is a poor conductor of heat?

- Ans
- 1. Copper
 - 2. Aluminium
 - 3. Silver
 - 4. Mercury

Question ID : 7532291146

Q. 20 Choose the correct option.

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

Question ID : 7532291149

Q.1 Choose the correct arrangement of the following substances in decreasing order of forces of attraction between the particles— milk, wood, hydrogen.

- Ans
- 1. Wood > milk > hydrogen
 - 2. Hydrogen > milk > wood
 - 3. Milk > wood > hydrogen
 - 4. Hydrogen > wood > milk

Question ID : 7532291166

Q.2 Which of the following is incorrect regarding rules for writing the number of electrons in different energy levels or shells?

- Ans
- 1. The maximum number of electrons present in a shell is given by the formula $2n^2$, where 'n' is the orbit number or energy level index, 1, 2, 3,
 - 2. The maximum number of electrons that can be accommodated in the outermost orbit is 8.
 - 3. Electrons are not accommodated in a given shell, unless the inner shells are filled.
 - 4. Electrons are accommodated in an outermost cell before the inner shells are filled in case of gases.

Question ID : 7532291162

Q.3 Which of the following is an incorrect statement?

- Ans
- 1. The solute particles of a solution can be separated from the mixture by the process of filtration.
 - 2. A solution is a homogeneous mixture.
 - 3. Because of very small particle size, they do not scatter a beam of light passing through the solution. So, the path of light is not visible in a solution.
 - 4. The particles of a solution are smaller than 1 nm (10^{-9} metre) in diameter.

Question ID : 7532291165

Q.4 Which of the following is incorrect?

1. The main credit for classifying elements goes to Johann Wolfgang Döbereiner.
2. The early development of a Periodic Table of elements was created through the arrangement of elements on the basis of their fundamental property, the atomic mass, and also on the similarity of chemical properties.

Choose the correct code:

- Ans
- 1. Both 1 and 2
 - 2. Neither 1 nor 2
 - 3. Only 1
 - 4. Only 2

Question ID : 7532291153

Q.5 The mass of aluminium is :

- Ans
- 1. 27 u (11 protons + 16 neutrons)
 - 2. 27 u (14 protons + 13 neutrons)
 - 3. 27 u (12 protons + 15 neutrons)
 - 4. 27 u (13 protons + 14 neutrons)

Question ID : 7532291163

Q.6 Who put forward the following postulate about the model of an atom?
"While revolving in discrete orbits the electrons do not radiate energy."

- Ans
- 1. John Dalton
 - 2. Werner Heisenberg
 - 3. Ernest Rutherford
 - 4. Neils Bohr

Question ID : 7532291160

Q.7 Which of the following sub-atomic particle was discovered by J. Chadwick in 1932?

- Ans
- 1. Neutrinos
 - 2. Protons
 - 3. Neutrons
 - 4. Electrons

Question ID : 7532291161

Q.8 Where does the fertilization in human females take place?

- Ans
- 1. Blastocoel
 - 2. Fallopian tube
 - 3. Cervix
 - 4. Uterus

Question ID : 7532291171

Q.9 If we convert 287 K to celsius scale, we will get:

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

Question ID : 7532291167

Q.10 Which of the following contraceptive methods interfere with ovulation and prevent release of ova from the ovaries?

- Ans
- 1. Diaphragms
 - 2. Copper T
 - 3. Oral Contraceptive Pills
 - 4. Tubectomy

Question ID : 7532291172

Q.11 Just like halogens, _____ also exists as diatomic molecules and it combines with metals and non-metals to form covalent compounds.

- Ans
- 1. Oxygen
 - 2. Carbon
 - 3. Hydrogen
 - 4. Nitrogen

Question ID : 7532291154

Q.12 The molecules of soap are sodium or potassium salts of long-chain _____ acids.

- Ans
- 1. Sulphuric
 - 2. Hydrochloric
 - 3. Boric
 - 4. Carboxylic

Question ID : 7532291155

Q.13 Which of the following is not a feature of a Prokaryotic cell?

- Ans
- 1. Membrane-bound organelles, such as mitochondria, endoplasmic reticulum, lysosome, chloroplast, nucleolus, etc. are present within the cytoplasm.
 - 2. The genetic material is a single molecule of DNA lying in the cytoplasm.
 - 3. Bacteria and blue-green algae are examples of this type of cell.
 - 4. These cells do not have a well-organized nucleus.

Question ID : 7532291169

Q.14 (I) _____ property of soap interacts with water and (II) _____ property interacts with hydrocarbons.

- Ans
- 1. (I) hydrophobic (II) hydrocarbolic
 - 2. (I) hydrocarbolic (II) hydrophilic
 - 3. (I) hydrophobic, (II) hydrophilic
 - 4. (I) hydrophilic, (II) hydrophobic

Question ID : 7532291156

Q.15 Which of the following is correct?

1. Carbon is tetravalent because it has four valence electrons.
2. Covalently bonded molecules are seen to have weak bonds within the molecule, but intermolecular forces are strong.

Choose the correct code:

- Ans
- 1. Only 2
 - 2. Only 1
 - 3. Neither 1 nor 2
 - 4. Both

Question ID : 7532291158

Q. 16 Which of the following are known as suicide bags?

- Ans
- 1. Mitochondria
 - 2. Golgi bodies
 - 3. Ribosomes
 - 4. Lysosomes

Question ID : 7532291168

Q. 17 Which of the following has not been concluded by Rutherford from the α -particle scattering experiment?

- Ans
- 1. The atom is indivisible and indestructible.
 - 2. Most of the space inside the atom is empty.
 - 3. The positive charge of the atom occupies very little space.
 - 4. All the positive charge and mass of the atom were concentrated in a very small volume within the atom.

Question ID : 7532291159

Q. 18 A solution contains 50 g of common salt in 300 g of water. Calculate the concentration in terms of mass-by-mass percentage of the solution.

- Ans
- 1. 14.28 Percent
 - 2. 16 Percent
 - 3. 7 Percent
 - 4. 11.1 Percent

Question ID : 7532291164

Q. 19 _____ are generally sodium salts of sulphonic acids or ammonium salts with chlorides or bromides ions.

- Ans
- 1. PVC
 - 2. Detergents
 - 3. Soaps
 - 4. Micelles

Question ID : 7532291157

Q. 20 Which of the following is incorrect?

- Ans
- 1. Stoppage of menstruation at an age usually between 45 years and 55 years is termed menopause.
 - 2. A girl is born with fixed number of ova (eggs).
 - 3. The first menstrual bleeding is called menarche.
 - 4. A pair of ova (eggs) are shed alternately from each ovary every month.

Question ID : 7532291170

Q.1 Which of the following is the largest source of Nitrogen?

- Ans
- 1. Atmospheric Nitrogen
 - 2. Urban Waste
 - 3. Livestock and Poultry operations
 - 4. Geological sources

Question ID : 7532291189

Q.2 Which of the following is a Protein Energy Malnutrition (PEM)?

- Ans
- 1. Marasmus
 - 2. Night Blindness
 - 3. Goitre
 - 4. Anaemia

Question ID : 7532291175

Q.3 Which of the following meninges of the human brain forms the thin delicate middle layer giving a web-like cushion?

- Ans
- 1. Pia mater
 - 2. Ven mater
 - 3. Dura mater
 - 4. Arachnoid

Question ID : 7532291178

Q.4 Which of the following belongs to the same division of Kingdom Plantae?

- Ans
- 1. Ulva, Funaria, Ulothrix
 - 2. Riccia, Marchantia, Funaria
 - 3. Spirogyra, Riccia, Cycas
 - 4. Marchantia, Marsilea, Fern

Question ID : 7532291184

Q.5 Which of the following minerals' prime function is to maintain growth and keep osmotic balance of cells and blood?

- Ans
- 1. Iron
 - 2. Potassium
 - 3. Iodine
 - 4. Calcium

Question ID : 7532291176

Q.6 Which of the following is an example of Phylum Porifera?

- Ans
- 1. Hydra
 - 2. Pin worms
 - 3. Sycon
 - 4. Planaria

Question ID : 7532291183

Q.7 Which of the following is transmitted by the female Culex mosquito?

- Ans
- 1. Congo fever
 - 2. Filariasis
 - 3. Dengue
 - 4. Malaria

Question ID : 7532291174

Q.8 An increase in blood flow to the atria of the heart can cause the release of ANF. What is the full form of ANF?

- Ans
- 1. Antidiuretic Nephrotic Factor
 - 2. Angiotensin Natriuretic Factor
 - 3. Ariel Nephrotic Factor
 - 4. Atrial Natriuretic Factor

Question ID : 7532291187

Q.9 Which of the following diseases is caused by Treponema pallidum?

- Ans
- 1. AIDS
 - 2. Syphilis
 - 3. Osteoporosis
 - 4. Gonorrhoea

Question ID : 7532291173

Q.10 A minute vessel of peritubular capillaries network runs parallel to the Henle's loop forming a '_____' shaped vasa recta.

- Ans
- 1. V
 - 2. U
 - 3. Z
 - 4. D

Question ID : 7532291186

Q.11 The movement of nutrients in a cyclic manner in the environment constitutes which of the following?

- Ans
- 1. Biogeochemical Cycle
 - 2. Organic Life Cycle
 - 3. Inorganic Life Cycle
 - 4. Biosphere Cycle

Question ID : 7532291188

Q.12 What percentage does Oxygen contributes in the composition of Air?

- Ans
- 1. 20.09 Percent
 - 2. 78.03 Percent
 - 3. 0.033 Percent
 - 4. 0.94 Percent

Question ID : 7532291191

Q.13 A normal human being on an average breathes how many times in a day?

- Ans
- 1. 43,000 Times
 - 2. 22,000 Times
 - 3. 44,000 Times
 - 4. 59,000 Times

Question ID : 7532291190

Q.14 Which of the following belongs to Eukarya domain of classification?

- Ans
- 1. Cyanobacteria
 - 2. Entamoeba
 - 3. Crenarchaeota
 - 4. Lokiarchaeota

Question ID : 7532291181

Q.15 Consider the following statements about a kingdom –
1. It includes multicellular or many celled organisms.
2. The body is made of network (mycelium) of fine threads called hyphae.
Which of the following is an organism belonging to this kingdom?

- Ans
- 1. Amoeba
 - 2. Mycobacterium
 - 3. Mushroom
 - 4. Chlamydomonas

Question ID : 7532291182

Q.16 Which of the following statements is incorrect?
1. 31 pairs of spinal nerves emerge from the spinal cord.
2. The functions of sympathetic and parasympathetic nervous systems are complementary to each other.

- Ans
- 1. Only 1
 - 2. Both 1 and 2
 - 3. Only 2
 - 4. Neither 1 nor 2

Question ID : 7532291179

Q.17 What is the name of the insulating fatty sheath that covers the axon of most neurons?

- Ans
- 1. Neurilemma
 - 2. Nodes of Ranvier
 - 3. Synaptic cleft
 - 4. Synapse

Question ID : 7532291177

Q.18 How many chromosomes are there in a sperm and an ovum or an egg of human-beings?

- Ans
- 1. 22
 - 2. 23
 - 3. 21
 - 4. 20

Question ID : 7532291180

Q.19 Which of the following statements are not true regarding Ammonia?

- Ans
- 1. It is generally excreted by diffusion across body surfaces or through gill surfaces (in fish)
 - 2. It is readily soluble
 - 3. Kidneys play a significant role in its removal
 - 4. The process of excreting ammonia is Ammonotelism

Question ID : 7532291185

Q.20 Which of the following is used as oxidant in rockets to burn the fuel?

- Ans
- 1. Liquid Helium
 - 2. Liquid Nitrogen
 - 3. Liquid Oxygen
 - 4. Liquid Argon

Question ID : 7532291192

Section : Discipline5

Q.1 The hardness of water is due to the presence of salts of which of the following?

- Ans
- 1. Potassium and Sulphur
 - 2. Potassium and Calcium
 - 3. Calcium and Magnesium
 - 4. Magnesium and Potassium

Question ID : 7532291196

Q.2 Which of the following are called 'draught animals'?

- Ans
- 1. Animals used for farm labour
 - 2. Poultry Animals
 - 3. Egg-producing animals
 - 4. Milk-producing female animals

Question ID : 7532291201

Q.3 Which of the following is an example of weed?

- Ans
- 1. Spring Onion
 - 2. Basil Plant
 - 3. Lemon Grass
 - 4. Carrot Grass

Question ID : 7532291202

Q.4 The main layer of atmosphere from the surface of earth up to 10 kms is called-

- Ans
- 1. Troposphere
 - 2. Thermosphere
 - 3. Mesosphere
 - 4. Stratosphere

Question ID : 7532291195

Q.5 The Excessive use of Fertilizers and pesticides in agriculture has led to which of the following phenomena?

- 1. Eutrophication
- 2. Photochemical smog
- 3. Decantation

- Ans
- 1. 3 only
 - 2. 1 only
 - 3. 1, 2 and 3
 - 4. 1 and 3 only

Question ID : 7532291193

Q.6 Ozone is a molecule formed by how many atom of oxygen?

- Ans
- 1. Two
 - 2. Four
 - 3. One
 - 4. Three

Question ID : 7532291194

Q.7 Which of the following is a micro-nutrient present in the soil essential for plant growth?

- Ans
- 1. Sulphur
 - 2. Iron
 - 3. Calcium
 - 4. Magnesium

Question ID : 7532291200

Q.8 The Soda Lime process to convert hard water into soft water is also known as?

- Ans
- 1. Weiner's Method
 - 2. Maxwell's Method
 - 3. Bohr's Method
 - 4. Clark's Method

Question ID : 7532291199

Q.9 Which of the following is NOT a domestic source of Soil Pollution?

- Ans
- 1. Fertilizers
 - 2. Plastic Bags
 - 3. Glass Bottles
 - 4. Kitchen Waste

Question ID : 7532291198

Q.10 Increased carbon dioxide level in earth's atmosphere leads to the phenomenon of _____.

- Ans
- 1. Greenhouse Effect
 - 2. Ozone hole
 - 3. Photochemical smog
 - 4. Acid Rain

Question ID : 7532291197

Section : Teaching Methodology

Q.1 Which of the following is not true?

- Ans
- 1. The process of development is continuous starting from the conception through birth to maturation.
 - 2. Girls mature earlier in comparison to boys.
 - 3. The direction of development is 'cephalo - caudal' as well as 'proximodistal' direction.
 - 4. Prenatal (before birth) and postnatal (after birth) development of human beings follows a pattern or a general sequence.

Question ID : 7532291205

Q.2 Which of the following can be a source and form of gender discrimination?

1. Government policies
 2. Family and parents
- Choose the correct code.

- Ans
- 1. Both 1 and 2
 - 2. Only 1
 - 3. Neither 1 nor 2
 - 4. Only 2

Question ID : 7532291203

Q.3 Which of the following is known as an accepted hypothesis?

- Ans
- 1. Evidence
 - 2. Natural Law
 - 3. Theory
 - 4. Fact

Question ID : 7532291207

Q.4 Which of the following statements is incorrect?

- Ans
- 1. Multi-grade teaching is more effective by the appropriate sitting arrangement.
 - 2. Multi-grade teaching is seen in the developed as well as in the underdeveloped countries.
 - 3. Multi-grade Teaching is a situation where multiple teachers teach several classes at a time.
 - 4. Multi-level teaching is related with Mono-grade situation.

Question ID : 7532291212

Q.5 Which of the following is not a feature of formative assessment?

- Ans
- 1. Can be flexible as per the needs of the students
 - 2. Grades do not carry much weight
 - 3. Outcome oriented
 - 4. Frequently administered during the teaching-learning process

Question ID : 7532291210

Q.6 According to the Census 2011, what is the child sex-ratio in our country?

- Ans
- 1. 914
 - 2. 940
 - 3. 925
 - 4. 932

Question ID : 7532291204

Q.7 In which year was the first of its kind "All India Seminar on Teaching Science in Secondary School" held at Simla Hills?

- Ans
- 1. 1956
 - 2. 1950
 - 3. 1961
 - 4. 1953

Question ID : 7532291206

Q.8 Who out of the following in his book "Structure of Science" defines Paradigm shift as a scientific revolution?

- Ans
- 1. Karl Popper
 - 2. Imre Lakatos
 - 3. Thomas Kuhn
 - 4. Richard Rorty

Question ID : 7532291208

Q.9 Which teaching methods is Socrates an exponent of?

- Ans
- 1. Question-answer method
 - 2. Demonstration method
 - 3. Tutorial method
 - 4. Lecture method

Question ID : 7532291211

Q.10 Inductive-Deductive approach is best method for teaching -

- 1. Science
 - 2. Grammar
 - 3. Mathematics
- Choose the correct code.

- Ans
- 1. Only 1 and 3
 - 2. Only 2 and 3
 - 3. 1, 2 and 3
 - 4. Only 1 and 2

Question ID : 7532291209

