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GENERAL APTITUDE



AEROSPACE ENGINEERING

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GENERAL APTITUDE

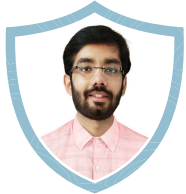
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OUR ACHIEVERS

GATE-2024 AE



K SUNIL
IIST TRIVANDRUM
AIR - 2



ASHWIN K
ACHARYA INSTITUTE, B'LORE
AIR - 6



HARIHARAN R
MIT, CHENNAI
AIR - 9



VIGNESH CG
IIST TRIVANDRUM
AIR - 11



ADITYA ANIL KUMAR
IIST TRIVANDRUM
AIR - 17

And Many More

GATE-2023 AE



SRIRAM R
SSN COLLEGE CHENNAI
AIR - 2



Akriti
PEC, CHANDIGARH
AIR - 6



SHREYASHI SARKAR
IEST, SHIBPUR
AIR - 8



YOKESH K
MIT, CHENNAI
AIR - 11



HRITHIK S PATIL
RVCE, BANGALORE
AIR - 14

And Many More

GATE-2022 AE



SUBHROJYOTI BISWAS
IEST, SHIBPUR
AIR - 4



SANJAY. S
AMRITA UNIV, COIMBATORE
AIR - 7



AKILESH . G
HITS, CHENNAI
AIR - 7



D. MANOJ KUMAR
AMRITA UNIV, COIMBATORE
AIR - 10



DIPAYAN PARBAT
IEST, SHIBPUR
AIR - 14

And Many More



OUR PSU JOB ACHIEVERS

HAL DT ENGINEER 2023

S.S Sanjay

Amrita Univ - Coimbatore

Shashi Kanth M

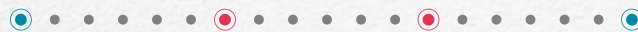
Sastra Univ - Tanjore

Vagicharla Dinesh

Lovely Professional Univ - Punjab

Anantha Krishan A.G

Amrita Univ - Coimbatore



HAL DT ENGINEER 2022

Fathima J

MIT - Chennai

Mohan Kumar H

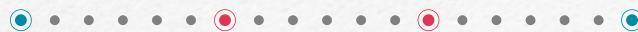
MVJCE - Bangalore

Arathy Anilkumar Nair

Amrita Univ - Coimbatore

Sadsivuni Tarun

Sastra Univ - Tanjore



HAL DT ENGINEER 2021

DRDO & ADA Scientist B

Job Position for Recruitment (2021-23) Based on GATE AE score

Abhilash K

Amrita Univ - Coimbatore

Ajitha Nishma V

IIST - Trivendrum

Dheeraj Sappa

IEST - Shibpur

F Jahangir

MIT - Chennai

Goutham

KCG College - Chennai

M Kumar

MVJ College - Bangalore

Mohit Kudal

RTU - Kota

Niladhari Pahari

IEST - Shibpur

Nitesh Singh

Sandip Univ - Nashik

Ramanathan A

Amrita Univ - Coimbatore

Shruti S Rajpara

IEST - Shibpur

RAM GOPAL SONI

GVIET - PUNJAB



OUR PSU JOB ACHIEVERS

DGCA Air Safety & Worthiness Officer

Job Position for Recruitment **(2023)**

Abhishek Shukla

FGIET - Raebareli

Aishwarya PS

BMS College - Bangalore

Anil Kumar Nakkala

Malla Reddy College - Hyderabad

Ayush Boral

KIIT - Bhubaneswar

Dhiraj Rajendra Kapte

Priyadarshini College - Nagpur

Govardhan K

RVCE - Bangalore

R Selvaraj

Sri Ramakrishna College - Coimbatore

Rithik Gowda M

ACS College - Bangalore

Samhit Sumnampa

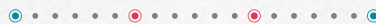
PEC - Chandigarh

Uttam Kumar Maurya

UPES - Dehradun

Thirthankar Majumdar

Amity University - Noida



GET-ESS-AIESL **2023**

S Komesh

Sathyabama University - Chennai

Shrenith Suhas

IIST - Shibpur

Ankur Vats

School Of Aeronautics - Neemrana

1. General Aptitude

GATE AE -2010

Q. 1 – Q. 5 carry one mark each.

1. Which of the following options is the closest in meaning to the word below;

Circuitous

- (A) cyclic (C) confusing
(B) indirect (D) crooked

2. The question below consists of a pair of related words followed by four pairs of words. Select the pair that best expresses the relation in the original pair.

Unemployed : Worker

- (A) fallow : land
(B) unaware : sleeper
(C) wit : jester
(D) renovated : house

3. Choose the most appropriate word from the options given below to complete the following sentence:

If we manage to _____ our natural resources, we would leave a better planet for our children.

- (A) uphold (C) cherish
(B) restrain (D) conserve

4. Choose the most appropriate word from the options given below to complete the following sentence:

His rather casual remarks on politics _____ his lack of seriousness about the subject.

- (A) masked (C) betrayed
(B) belied (D) suppressed

5. 25 persons are in a room. 15 of them play hockey, 17 of them play football and 10 of them play both hockey and football. Then the number of persons playing neither hockey nor football is:

- (A) 2 (C) 13
(B) 17 (D) 3

Q. 6 – Q. 10 carry two marks each.

6. Modern warfare has changed from large scale clashes of armies to suppression of civilian populations. Chemical agents that do their work silently appear to be suited to such warfare; and regretfully, there exist people in military establishments who think that chemical agents are useful tools for their cause. Which of the following statements best sums up the meaning of the above passage:

- (A) Modern warfare has resulted in civil strife.
(B) Chemical agents are useful in modern warfare.
(C) Use of chemical agents in warfare would be undesirable.
(D) People in military establishments like to use chemical agents in war

7. If $137 + 276 = 435$ how much is $731 + 672$?

- (A) 534 (C) 1623
(B) 1403 (D) 1513

8. 5 skilled workers can build a wall in 20 days; 8 semi-skilled workers can build a wall in 25 days; 10 unskilled workers can build a wall in 30 days. If a team has 2 skilled, 6 semi-skilled and 5 unskilled workers, how long will it take to build the wall?
(A) 20 days (C) 16 days
(B) 18 days (D) 15 days
9. Given digits 2, 2, 3, 3, 3, 4, 4, 4, 4 how many distinct 4 digit numbers greater than 3000 can be formed?
(A) 50 (C) 52
(B) 51 (D) 54
10. Hari (H), Gita (G), Irfan (I) and Saira (S) are siblings (i.e. brothers and sisters). All were born on 1st January. The age difference between any two successive siblings (that is born one after another) is less than 3 years. Given the following facts:
i. Hari's age + Gita's age > Irfan's age + Saira's age,
ii. The age difference between Gita and Saira is 1 year. However, Gita is not the oldest and Saira is not the youngest.
iii. There are no twins.
In what order were they born (oldest first)?
(A) HSIG (C) IGSH
(B) SGHI (D) IHSG
12. Choose the most appropriate word(s) from the options given below to complete the following sentence.
We lost confidence in him because he never _____ the grandiose promises he had made.
(A) delivered (C) forgot
(B) delivered on (D) reneged on
13. Choose the word or phrase that best completes the sentence below.
_____ **in the frozen wastes of Arctic takes special equipment.**
(A) To survive (C) Survival
(B) Surviving (D) That survival
14. In how many ways 3 scholarships can be awarded to 4 applicants, when each applicant can receive any number of scholarships?
(A) 4 (C) 64
(B) 12 (D) 81
15. Choose the most appropriate word from the options given below to complete the following sentence.
The _____ of evidence was on the side of the plaintiff since all but one witness testified that his story was correct.
(A) paucity
(B) propensity
(C) preponderance
(D) accuracy

GATE AE -2011

Q. 11 – Q. 15 carry one mark each.

11. Choose the word from the options given below that is most nearly opposite in meaning to the given word:
Deference
(A) aversion (C) suspicion
(B) resignation (D) contempt

Q. 16 to Q. 20 carry two marks each.

16. If $\frac{2y+1}{y+2} < 1$, then which of the following alternatives gives the **CORRECT** range of y?
(A) $-2 < y < 2$ (C) $-3 < y < 1$
(B) $-2 < y < 1$ (D) $-4 < y < 1$

General Aptitude

17. A student attempted to solve a quadratic equation in x twice. However, in the first attempt, he incorrectly wrote the constant term and ended up with the roots as $(4, 3)$. In the second attempt, he incorrectly wrote down the coefficient of x and got the roots as $(3, 2)$. Based on the above information, the roots of the correct quadratic equation are

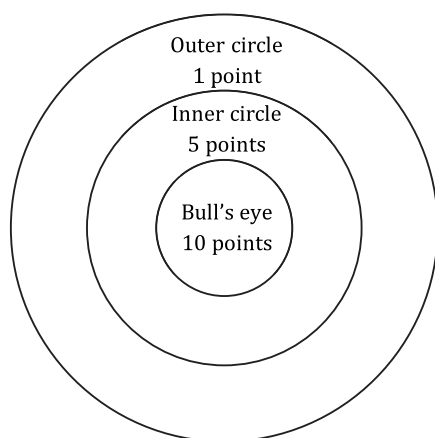
(A) $(-3, 4)$ (C) $(6, 1)$
(B) $(3, -4)$ (D) $(4, 2)$

18. L, M and N are waiting in a queue meant for children to enter the zoo. There are 5 children between L and M, and 8 children between M and N. If there are 3 children ahead of N and 21 children behind L, then what is the minimum number of children in the queue?

(A) 28 (C) 41
(B) 27 (D) 40

19. Four archers P, Q, R and S try to hit a bull's eye during a tournament consisting of seven rounds.

As illustrated in the figure below, a player receives 10 points for hitting the bull's eye, 5 points for hitting within the inner circle and 1 point for hitting within the outer circle.



The final scores received by the players during the tournament are listed in the table below.

Round	P	Q	R	S
1	1	5	1	10
2	5	10	10	1
3	1	1	1	5
4	10	10	1	1
5	1	5	5	10
6	10	5	1	1
7	5	10	1	1

The most accurate and the most consistent players during the tournament are respectively

(A) P and S (C) Q and Q
(B) Q and R (D) R and Q

20. **Nimbus clouds are dark and ragged, stratus clouds appear dull in colour and cover the entire sky. Cirrus clouds are thin and delicate, whereas cumulus clouds look like cotton balls.**

It can be inferred from the passage that

(A) A cumulus cloud on the ground is called fog
(B) It is easy to predict the weather by studying clouds
(C) Clouds are generally of very different shapes, sizes and mass
(D) There are four basic cloud types: stratus, nimbus, cumulus and cirrus

GATE AE -2012

Q. 21 – Q. 25 carry one mark each.

21. Choose the most appropriate alternative from the options given below to complete the following sentence:

I _____ to have bought a diamond ring.

(A) have a liking
(B) should have liked
(C) would like
(D) may like

22. Choose the most appropriate alternative from the options given below to complete the following sentence:

Food prices _____ again this month.

- (A) have raised
(B) have been raising
(C) have been rising
(D) have arose

23. Choose the most appropriate alternative from the options given below to complete the following sentence:

The administrators went on to implement yet another unreasonable measure, arguing that the measures were already _____ and one more would hardly make a difference.

- (A) reflective (C) luxuriant
(B) utopian (D) unpopular

24. Choose the most appropriate alternative from the options given below to complete the following sentence:

To those of us who had always thought him timid, his _____ came as a surprise.

- (A) intrepidity (C) inability
(B) inevitability (D) inertness

25. The arithmetic mean of five different natural numbers is 12. The largest possible value among the numbers is

- (A) 12 (C) 50
(B) 40 (D) 60

Q. 26 to Q. 30 carry two marks each.

26. Two policemen, A and B, fire once each at the same time at an escaping convict. The probability that A hits the convict is three times the probability that B hits the convict. If the probability of the convict not getting injured is 0.5, the probability that B hits the convict is

- (A) 0.14 (C) 0.33
(B) 0.22 (D) 0.40

27. The total runs scored by four cricketers P, Q, R, and S in years 2009 and 2010 are given in the following table:

Player	2009	2010
P	802	1008
Q	765	912
R	429	619
S	501	701

The player with the lowest percentage increase in total runs is

- (A) P (C) R
(B) Q (D) S

28. If a prime number on division by 4 gives a remainder of 1, then that number can be expressed as

- (A) sum of squares of two natural numbers
(B) sum of cubes of two natural numbers
(C) sum of square roots of two natural numbers
(D) sum of cube roots of two natural numbers

29. Two points (4, p) and (0, q) lie on a straight line having a slope of $\frac{3}{4}$. The value of (p – q) is

- (A) –3 (C) 3
(B) 0 (D) 4

30. In the early nineteenth century, theories of social evolution were inspired less by Biology than by the conviction of social scientists that there was a growing improvement in social institutions. Progress was taken for granted and social scientists attempted to discover its laws and phases.

Which one of the following inferences may be drawn with the greatest accuracy from the above

General Aptitude

passage?

Social scientists

- (A) did not question that progress was a fact.
- (B) did not approve of Biology.
- (C) framed the laws of progress.
- (D) emphasized Biology over Social Sciences.

GATE AE -2013

Q. 31 – Q. 35 carry one mark each.

31. If $3 \leq X \leq 5$ and $8 \leq Y \leq 11$ then which of the following options is TRUE?

- (A) $\frac{3}{5} \leq \frac{X}{Y} \leq \frac{8}{5}$
- (B) $\frac{3}{11} \leq \frac{X}{Y} \leq \frac{5}{8}$
- (C) $\frac{3}{11} \leq \frac{X}{Y} \leq \frac{8}{5}$
- (D) $\frac{3}{5} \leq \frac{X}{Y} \leq \frac{8}{11}$

32. The Headmaster _____ to speak to you.
Which of the following options is incorrect to complete the above sentence?

- (A) is wanting
- (B) wants
- (C) want
- (D) was wanting

33. Mahatma Gandhi was known for his humility as

- (A) He played an important role in humiliating exit of British from India.
- (B) he worked for humanitarian causes.
- (C) he displayed modesty in his interactions.
- (D) he was a fine human being.

34. All engineering students should learn mechanics.

I II

mathematics and how to do computation.

III IV

Which of the above underlined parts of the sentence is not appropriate?

- (A) I
- (B) II
- (C) III
- (D) IV

35. Select the pair that best expresses a relationship similar to that expressed in the pair: **water: pipe::**

- (A) cart: road
- (B) electricity: wire
- (C) sea: beach
- (D) music: instrument

Q. 36 to Q. 40 carry two marks each.

36. Velocity of an object fired directly in upward direction is given by $V = 80 - 32t$, where t (time) is in seconds. When will the velocity be between 32 m/sec and 64 m/sec?

- (A) $(1, 3/2)$
- (B) $(1/2, 1)$
- (C) $(1/2, 3/2)$
- (D) $(1, 3)$

37. In a factory, two machines M1 and M2 manufacture 60% and 40% of the auto components respectively. Out of the total production, 2% of M1 and 3% of M2 are found to be defective. If a randomly drawn auto component from the combined lot is found defective, what is the probability that it was manufactured by M2?

- (A) 0.35
- (B) 0.45
- (C) 0.5
- (D) 0.4

38. Following table gives data on tourists from different countries visiting India in the year 2011.

Country	Number of Tourists
USA	2000
England	3500
Germany	1200
Italy	1100
Japan	2400
Australia	2300
France	1000

Which two countries contributed to the one third of the total number of tourists who visited India in 2011?

- (A) USA and Japan
- (B) USA and Australia

- (C) England and France
(D) Japan and Australia
39. If $|-2X + 9| = 3$ then the possible value of $|-X| - X^2$ would be:
(A) 30 (C) -42
(B) -30 (D) 42
40. All professors are researchers
Some scientists are professors
Which of the given conclusions is logically valid and is inferred from the above arguments:
(A) All scientists are researchers
(B) All professors are scientists
(C) Some researchers are scientists
(D) No conclusion follows

GATE AE - 2014

Q. 41 – Q. 45 carry one mark each.

41. A student is required to demonstrate a high level of comprehension of the subject, especially in the social sciences.
The word closest in meaning to comprehension is
(A) understanding
(B) meaning
(C) concentration
(D) stability
42. Choose the most appropriate word from the options given below to complete the following sentence.
One of his biggest ____ was his ability to forgive.
(A) vice (C) choices
(B) virtues (D) strength
43. Rajan was not happy that Sajan decided to do the project on his own. On observing his unhappiness, Sajan explained to Rajan that he preferred to work independently.

Which one of the statements below is logically valid and can be inferred from the above sentences?

- (A) Rajan has decided to work only in a group.
(B) Rajan and Sajan were formed into a group against their wishes.
(C) Sajan had decided to give in to Rajan's request to work with him.
(D) Rajan had believed that Sajan and he would be working together.
44. If $y = 5x^2 + 3$, then the tangent at $x = 0, y = 3$
(A) passes through $x = 0, y = 0$
(B) has a slope of +1
(C) is parallel to the x-axis
(D) has a slope of -1
45. A foundry has a fixed daily cost of Rs 50,000 whenever it operates and a variable cost of Rs 800Q, where Q is the daily production in tonnes. What is the cost of production in Rs per tonne for a daily production of 100 tonnes?
- Q. 46 – Q. 50 carry two marks each.**
46. Find the odd one in the following group:
ALRVX, EPVZB, ITZDF, OYEIK
(A) ALRVX (C) ITZDF
(B) EPVZB (D) OYEIK
47. Anuj, Bhola, Chandan, Dilip, Eswar and Faisal live on different floors in a six-storeyed building (the ground floor is numbered 1, the floor above it 2, and so on). Anuj lives on an even-numbered floor. Bhola does not live on an odd numbered floor. Chandan does not live on any of the floors below Faisal's floor. Dilip does not live on floor number 2. Eswar does not live on a floor immediately above or immediately below Bhola. Faisal lives three floors above Dilip. Which of the following floor-person combinations is correct?

General Aptitude

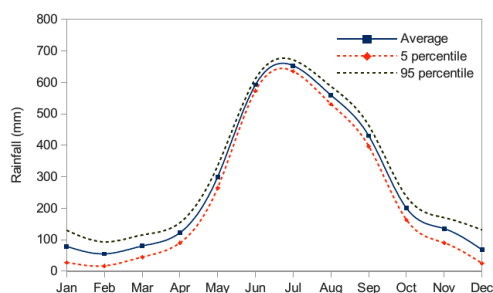
	(A)	(B)	(C)	(D)
Anuj	6	2	4	2
Bhola	2	6	2	4
Chandan	5	5	6	6
Dilip	1	1	3	1
Eswar	3	3	1	3
Faisal	4	4	5	5

48. The smallest angle of a triangle is equal to two thirds of the smallest angle of a quadrilateral. The ratio between the angles of the quadrilateral is 3:4:5:6. The largest angle of the triangle is twice its smallest angle. What is the sum, in degrees, of the second largest angle of the triangle and the largest angle of the quadrilateral?

49. One percent of the people of country X are taller than 6 ft. Two percent of the people of country Y are taller than 6 ft. There are thrice as many people in country X as in country Y. Taking both countries together, what is the percentage of people taller than 6 ft?

- (A) 3.0 (C) 1.5
(B) 2.5 (D) 1.25

50. The monthly rainfall chart based on 50 years of rainfall in Agra is shown in the following figure. Which of the following are true? (k percentile is the value such that k percent of the data fall below that value)



- i. On average, it rains more in July than in December

- ii. Every year, the amount of rainfall in August is more than that in January
iii. July rainfall can be estimated with better confidence than February rainfall
iv. In August, there is at least 500 mm of rainfall

- (A) (i) and (ii) (C) (ii) and (iii)
(B) (i) and (iii) (D) (iii) and (iv)

GATE AE - 2015

Q. 51 – Q. 55 carry one mark each.

51. Choose the appropriate word/phrase, out of the four options given below, to complete the following sentence:

Apparent lifelessness _____ dormant life.

- (A) harbours (C) supports
(B) leads to (D) affects

52. Fill in the blank with the correct idiom/phrase. That boy from the town was a _____ in the sleepy village.

- (A) dog out of herd
(B) sheep from the heap
(C) fish out of water
(D) bird from the flock

53. Choose the statement where underlined word is used correctly.

- (A) When the teacher eludes to different authors, he is being elusive.
(B) When the thief keeps eluding the polices, he is being elusive.
(C) Matters that are difficult to understand, identify or remember are allusive.
(D) Mirages can be allusive, but a better way to express them is illusory.

54. Tanya is older than Eric.
Cliff is older than Tanya.
Eric is older than Cliff.

If the first two statements are true, then the third statement is:

- (A) True
- (B) False
- (C) Uncertain
- (D) Data insufficient

55. Five teams have to compete in a league, with every team playing every other team exactly once, before going to the next round. How many matches will have to be held to complete the league round of matches?

- (A) 20
- (B) 10
- (C) 8
- (D) 5

Q. 56 – Q. 60 carry two marks each.

56. Select the appropriate option in place of underlined part of the sentence.

Increased productivity necessary reflects greater efforts made by the employees.

- (A) Increase in productivity necessary
- (B) Increase productivity is necessary
- (C) Increase in productivity necessarily
- (D) No improvement required

57. Given below are two statements followed by two conclusions. Assuming these statements to be true, decide which one logically follows.

Statements:

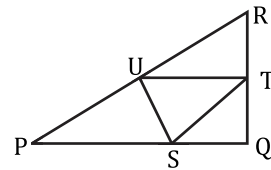
- I. No manager is a leader.
- II. All leaders are executives.

Conclusions:

- I. No manager is an executive.
- II. No executive is a manager.
- (A) Only conclusion I follows.
- (B) Only conclusion II follows.
- (C) Neither conclusion I nor II follows.
- (D) Both conclusions I and II follow.

58. In the given figure angle Q is a right angle, PS : QS = 3:1, RT:QT = 5:2 and PU:UR = 1:1. If area

of triangle QTS is 20 cm² then the area of triangle PQR in cm² is ____.



59. Right triangle PQR is to be constructed in the xy – plane so that the right angles is at P and line PR is parallel to the x-axis. The x and y coordinates of P, Q, and R are to be integers that satisfy the inequalities: $-4 \leq x \leq 5$ and $6 \leq y \leq 16$. How many different triangles could be constructed with these properties?

- (A) 110
- (B) 1,100
- (C) 9,900
- (D) 10,000

60. A coin is tossed thrice. Let X be the event that head occurs in each of the first two tosses. Let Y be the event that a tail occurs on the third toss. Let Z be the event that two tails occur in three tosses.

Based on the above information, which one of the following statements is TRUE?

- (A) X and Y are not independent
- (B) Y and Z are dependent
- (C) Y and Z are independent
- (D) X and Z are independent

GATE AE - 2016

Q. 61 – Q. 65 carry one mark each.

61. The chairman requested the aggrieved shareholders to _____ him.

- (A) bare with
- (B) bore with
- (C) bear with
- (D) bare

62. Identify the correct spelling out of the given options:

- (A) Managable
- (B) Manageable
- (C) Mangaible
- (D) Managible

General Aptitude

63. Pick the odd one out in the following:

13, 23, 33, 43, 53

- (A) 23 (C) 43
(B) 33 (D) 53

64. R2D2 is a robot. R2D2 can repair aeroplanes.
No other robot can repair aeroplanes.

Which of the following can be logically inferred from the above statements?

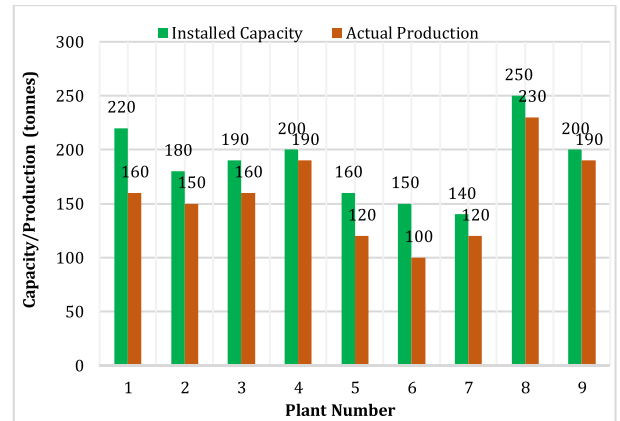
- (A) R2D2 is a robot which can only repair aeroplanes.
(B) R2D2 is the only robot which can repair aeroplanes.
(C) R2D2 is a robot which can repair only aeroplanes.
(D) Only R2D2 is a robot.

65. If $|9y - 6| = 3$, then $y^2 - \frac{4y}{3}$ is _____.

- (A) 0 (C) $-1/3$
(B) $+1/3$ (D) undefined

Q. 6 – Q. 10 carry two marks each.

66. The following graph represents the installed capacity for cement production (in tonnes) and the actual production (in tonnes) of nine cement plants of a cement company. Capacity utilization of a plant is defined as ratio of actual production of cement to installed capacity. A plant with installed capacity of at least 200 tonnes is called a large plant and a plant with lesser capacity is called a small plant. The difference between total production of large plants and small plants, in tonnes is ____.



67. A poll of students appearing for masters in engineering indicated that 60 % of the students believed that mechanical engineering is a profession unsuitable for women. A research study on women with masters or higher degrees in mechanical engineering found that 99 % of such women were successful in their professions.

Which of the following can be logically inferred from the above paragraph?

- (A) Many students have misconceptions regarding various engineering disciplines.
(B) Men with advanced degrees in mechanical engineering believe women are well suited to be mechanical engineers.
(C) Mechanical engineering is a profession well suited for women with masters or higher degrees in mechanical engineering.
(D) The number of women pursuing higher degrees in mechanical engineering is small.

68. Sourya committee had proposed the establishment of Sourya Institutes of Technology (SITs) in line with Indian Institutes of Technology (IITs) to cater to the

technological and industrial needs of a developing country.

Which of the following can be logically inferred from the above sentence?

Based on the proposal,

- (i) In the initial years, SIT students will get degrees from IIT.
- (ii) SITs will have a distinct national objective.
- (iii) SIT like institutions can only be established in consultation with IIT.
- (iv) SITs will serve technological needs of a developing country.

- (A) (iii) and (iv) only.
- (B) (i) and (iv) only.
- (C) (ii) and (iv) only.
- (D) (ii) and (iii) only.

69. Shaquille O' Neal is a 60% career free throw shooter, meaning that he successfully makes 60 free throws out of 100 attempts on average. What is the probability that he will successfully make exactly 6 free throws in 10 attempts?

- (A) 0.2508 (C) 0.2934
- (B) 0.2816 (D) 0.6000

70. The numeral in the units position of $211^{870} + 146^{127} \times 3^{424}$ is ____.

GATE AE - 2017

Q. 71 – Q. 75 carry one mark each.

71. The ninth and the tenth of this month are Monday and Tuesday ____.
- (A) figuratively
 - (B) retrospectively
 - (C) respectively
 - (D) rightfully

72. It is ____ to read this year's textbook ____ the last year's.

- (A) easier, than (C) easier, from
- (B) most easy, than (D) easiest, from

73. A rule states that in order to drink beer, one must be over 18 years old. In a bar, there are 4 people. P is 16 years old, Q is 25 years old, R is drinking milkshake and S is drinking a beer. What must be checked to ensure that the rule is being followed?

- (A) Only P's drink
- (B) Only P's drink and S's age
- (C) Only S's age
- (D) Only P's drink, Q's drink and S's age

74. Fatima starts from point P, goes North for 3 km, and then East for 4 km to reach point Q. She then turns to face point P and goes 15 km in that direction. She then goes North for 6 km. How far is she from point P, and in which direction should she go to reach point P?

- (A) 8 km, East (C) 6 km, East
- (B) 12 km, North (D) 10 km, North

75. 500 students are taking one or more courses out of Chemistry, Physics, and Mathematics. Registration records indicate course enrolment as follows: Chemistry (329), Physics (186), Mathematics (295), Chemistry and Physics (83), Chemistry and Mathematics (217), and Physics and Mathematics (63). How many students are taking all 3 subjects?

- (A) 37 (C) 47
- (B) 43 (D) 53

Q. 76 to Q. 80 carry two marks each.

76. "If you are looking for a History of India, or for an account of the rise and fall of the British Raj, or for the reason of the cleaving of the subcontinent into two mutually antagonistic parts and the effects this mutilation will have in the respective sections, and ultimately on

General Aptitude

Asia, you will not find it in these pages; for though I have spent a lifetime in the country, I lived too near the seat of events, and was too intimately associated with the actors, to get the perspective needed for the impartial recording of these matters."

Which of the following statements best reflects the author's opinion?

- (A) An intimate association does not allow for the necessary perspective.
- (B) Matters are recorded with an impartial perspective.
- (C) An intimate association offers an impartial perspective.
- (D) Actors are typically associated with the impartial recording of matters.

77. Each of P, Q, R, S, W, X, Y and Z has been married at most once. X and Y are married and have two children P and Q. Z is the grandfather of the daughter S of P. Further, Z and W are married and are parents of R. Which one of the following must necessarily be FALSE?

- (A) X is the mother-in-law of R
- (B) P and R are not married to each other
- (C) P is a son of X and Y
- (D) Q cannot be married to R

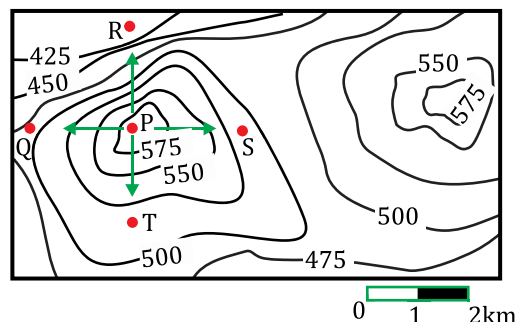
78. 1200 men and 500 women can build a bridge in 2 weeks. 900 men and 250 women will take 3 weeks to build the same bridge. How many men will be needed to build the bridge in one week?

- (A) 3000 (C) 3600
- (B) 3300 (D) 3900

79. The number of 3-digit numbers such that the digit 1 is never to the immediate right of 2 is

- (A) 781 (C) 881
- (B) 791 (D) 891

80. A contour line joins locations having the same height above the mean sea level. The following is a contour plot of a geographical region. Contour lines are shown at 25 m intervals in this plot



Which of the following is the steepest path leaving from P?

- (A) P to Q (C) P to S
- (B) P to R (D) P to T

GATE AE - 2018

Q. 81 – Q. 85 carry one mark each.

81. "The dress _____ her so well that they all immediately _____ her on her appearance."

The words that best fill the blanks in the above sentence are

- (A) complemented, complemented
- (B) complimented, complimented
- (C) complimented, complimented
- (D) complemented, complimented

82. "The judge's standing in the legal community, though shaken by false allegations of wrongdoing, remained _____."

The word that best fills the blank in the above sentence is

- (A) undiminished (C) illegal
- (B) damaged (D) uncertain

83. Find the missing group of letters in the following series: BC, FGH, LMNO, _____

- (A) UVWXY (C) STUVW
- (B) TUVWX (D) RSTUV

84. The perimeters of a circle, a square and an equilateral triangle are equal. Which one of the following statements is true?
- (A) The circle has the largest area.
 (B) The square has the largest area.
 (C) The equilateral triangle has the largest area.
 (D) All the three shapes have the same area.

85. The value of the expression

$$\frac{1}{1 + \log_u vw} + \frac{1}{1 + \log_v wu} + \frac{1}{1 + \log_w uv}$$

is

- (A) -1 (C) 1
 (B) 0 (D) 3

Q. 86 – Q. 90 carry two marks each.

86. Forty students watched films A, B and C over a week. Each student watched either only one film or all three. Thirteen students watched film A, sixteen students watched film B and nineteen students watched film C. How many students watched all three films?

- (A) 0 (C) 4
 (B) 2 (D) 8

87. A wire would enclose an area of 1936 m^2 , if it is bent into a square. The wire is cut into two pieces. The longer piece is thrice as long as the shorter piece. The long and the short pieces are bent into a square and a circle, respectively. Which of the following choices is closest to the sum of the areas enclosed by the two pieces in square meters?

- (A) 1096 (C) 1243
 (B) 1111 (D) 2486

88. A contract is to be completed in 52 days and 125 identical robots were employed, each operational for 7 hours a day. After 39 days, five-seventh of the work was completed. How many additional robots would be required to

complete the work on time, if each robot is now operational for 8 hours a day?

- (A) 50 (C) 146
 (B) 89 (D) 175

89. A house has a number which needs to be identified. The following three statements are given that can help in identifying the house number.

- i. If the house number is a multiple of 3, then it is a number from 50 to 59.
 ii. If the house number is NOT a multiple of 4, then it is a number from 60 to 69.
 iii. If the house number is NOT a multiple of 6, then it is a number from 70 to 79.

What is the house number?

- (A) 54 (C) 66
 (B) 65 (D) 76

90. An unbiased coin is tossed six times in a row and four different such trials are conducted. One trial implies six tosses of the coin. If H stands for head and T stands for tail, the following are the observations from the four trials:

- (1) HTHTHT (2) TTHHHT
 (3) HTTHHT (4) HHHT__

Which statement describing the last two coin tosses of the fourth trial has the highest probability of being correct?

- (A) Two T will occur.
 (B) One H and one T will occur.
 (C) Two H will occur.
 (D) One H will be followed by one T.

GATE AE - 2019

Q. 91 – Q. 95 carry one mark each.

91. The fishermen, _____ the flood victims owed their lives, were rewarded by the government.

- (A) whom (C) to whom
 (B) to which (D) that

General Aptitude

92. Some students were not involved in the strike. If the above statement is true, which of the following conclusions is/are logically necessary?

1. Some who were involved in the strike were students.
2. No student was involved in the strike.
3. At least one student was involved in the strike.
4. Some who were not involved in the strike were students.

- (A) 1 and 2 (C) 4
(B) 3 (D) 2 and 3

93. The radius as well as the height of a circular cone increases by 10%. The percentage increase in its volume is _____.

- (A) 17.1 (C) 33.1
(B) 21.0 (D) 72.8

94. Five numbers 10, 7, 5, 4 and 2 are to be arranged in a sequence from left to right following the directions given below:

- a. No two odd or even numbers are next to each other.
- b. The second number from the left is exactly half of the left-most number.
- c. The middle number is exactly twice the right-most number.

Which is the second number from the right?

- (A) 2 (C) 7
(B) 4 (D) 10

95. Until Iran came along, India had never been _____ in kabaddi.

- (A) defeated (C) defeat
(B) defeating (D) defeatist

Q. 96 – Q. 100 carry two marks each.

96. Since the last one year, after a 125 basis point reduction in repo rate by the Reserve Bank of

India, banking institutions have been making a demand to reduce interest rates on small saving schemes. Finally, the government announced yesterday a reduction in interest rates on small saving schemes to bring them on par with fixed deposit interest rates.

Which one of the following statements can be inferred from the given passage?

- (A) Whenever the Reserve Bank of India reduces the repo rate, the interest rates on small saving schemes are also reduced
(B) Interest rates on small saving schemes are always maintained on par with fixed deposit interest rates
(C) The government sometimes takes into consideration the demands of banking institutions before reducing the interest rates on small saving schemes
(D) A reduction in interest rates on small saving schemes follow only after a reduction in repo rate by the Reserve Bank of India

97. In a country of 1400 million population, 70% own mobile phones. Among the mobile phone owners, only 294 million access the Internet. Among these Internet users, only half buy goods from e-commerce portals. What is the percentage of these buyers in the country?

- (A) 10.50 (C) 15.00
(B) 14.70 (D) 50.00

98. The nomenclature of Hindustani music has changed over the centuries. Since the medieval period dhrupad styles were identified as baanis. Terms like gayaki and baaj were used to refer to vocal and instrumental styles, respectively. With the institutionalization of music education the term gharana became acceptable. Gharana originally referred to

hereditary musicians from a particular lineage, including disciples and grand disciples.

Which one of the following pairings is NOT correct?

- (A) dhrupad, baani (C) baaj, institution
(B) gayaki, vocal (D) gharana, lineage

99. Two trains started at 7AM from the same point. The first train travelled north at a speed of 80km/h and the second train travelled south at a speed of 100 km/h. The time at which they were 540 km apart is _____ AM.

- (A) 9 (C) 11
(B) 10 (D) 11.30

100. "I read somewhere that in ancient times the prestige of a kingdom depended upon the number of taxes that it was able to levy on its people. It was very much like the prestige of a head-hunter in his own community."

Based on the paragraph above, the prestige of a head-hunter depended upon _____

- (A) the prestige of the kingdom
(B) the prestige of the heads
(C) the number of taxes he could levy
(D) the number of heads he could gather

GATE AE - 2020

Q. 101 – Q. 105 carry one mark each.

101. The untimely loss of life is a cause of serious global concern as thousands of people get killed _____ accidents every year while many other die _____ diseases like cardio vascular disease, cancer, etc.

- (A) in, of (C) during, from
(B) from, of (D) from, from

102. He was not only accused of theft _____ of conspiracy.

- (A) rather (C) but even
(B) but also (D) rather than

103. Select the word that fits the analogy:

Explicit: Implicit:: Express: _____

- (A) Impress (C) Compress
(B) Repress (D) Suppress

104. The Canadian constitution requires that equal importance be given to English and French.

Last year, Air Canada lost a lawsuit, and had to pay a six-figure fine to a French-speaking couple after they filed complaints about formal in-flight announcements in English lasting 15 seconds, as opposed to informal 5 second messages in French. The French-speaking couple were upset at _____.

- (A) the in-flight announcements being made in English.
(B) the English announcements being clearer than the French ones.
(C) the English announcements being longer than the French ones.
(D) equal importance being given to English and French.

105. A superadditive function $f(\cdot)$ satisfies the following property

$$f(x_1 + x_2) \geq f(x_1) + f(x_2)$$

Which of the following functions is a superadditive function for $x > 1$?

- (A) e^x (C) $1/x$
(B) \sqrt{x} (D) e^{-x}

Q. 106 – Q. 110 carry two marks each.

106. The global financial crisis in 2008 is considered to be the most serious world-wide financial crisis, which started with the sub-prime lending crisis in USA in 2007. The sub-prime lending crisis led to the banking crisis in 2008 with the collapse of Lehman Brothers in 2008. The sub-prime lending refers to the provision of loans to those borrowers who may have difficulties in repaying loans, and it arises

General Aptitude

because of excess liquidity following the East Asian crisis.

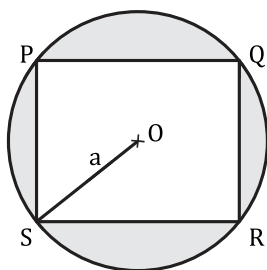
Which one of the following sequences shows the correct precedence as per the given passage?

- (A) East Asian crisis → subprime lending crisis → banking crisis → global financial crisis.
(B) Subprime lending crisis → global financial crisis → banking crisis → East Asian crisis.
(C) Banking crisis → subprime lending crisis → global financial crisis → East Asian crisis.
(D) Global financial crisis → East Asian crisis → banking crisis → subprime lending crisis.

107. It is quarter past three in your watch. The angle between the hour hand and the minute hand is.

- (A) 0° (C) 15°
(B) 7.5° (D) 22.5°

108. A circle with centre O is shown in the figure. A rectangle PQRS of maximum possible area is inscribed in the circle. If the radius of the circle is a , then the area of the shaded portion is _____.

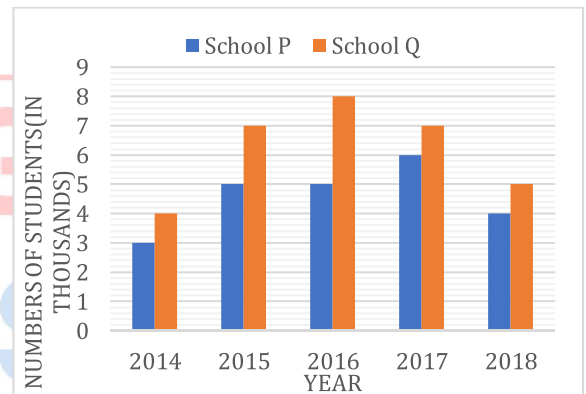


- (A) $\pi a^2 - a^2$ (C) $\pi a^2 - 2a^2$
(B) $\pi a^2 - \sqrt{2}a^2$ (D) $\pi a^2 - 3a^2$

109. a, b, c are real numbers. The quadratic equation $ax^2 - bx + c = 0$ has equal roots, which is β , then

- (A) $\beta = \frac{b}{a}$ (C) $\beta^3 = \frac{bc}{2a^2}$
(B) $\beta^2 = ac$ (D) $b^2 \neq 4ac$

110. The following figure shows the data of students enrolled in 5 years (2014 to 2018) for two schools P and Q. During this period, the ratio of the average number of the students enrolled in school P to the average of the difference of the number of students enrolled in schools P and Q is _____.



- (A) 8 : 23 (C) 23 : 31
(B) 23 : 8 (D) 31 : 23

GATE AE - 2021

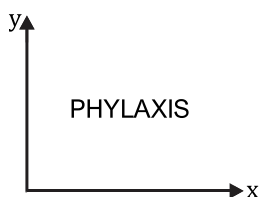
Q. 111 - Q. 115 Multiple Choice Question (MCQ), carry ONE marks each (for each wrong answer: -1/3)

111. (i) Arun and Aparna are here.
(ii) Arun and Aparna is here.
(iii) Arun's families is here.
(iv) Arun's family is here.

Which of the above sentences are grammatically CORRECT?

- (A) (i) & (ii) (C) (ii) & (iv)
(B) (i) & (iv) (D) (iii) & (iv)

112. The mirror image of the below text about the x-axis is



- (A) PHYLAXIS (C) dHΛΓVXIS
(B) bHΛΓVXIS (D) bHΛΓVXIS
113. Two identical cube shaped dice each with faces numbered 1 to 6 are rolled simultaneously. The probability that an even number is rolled out on each dice is:
- (A) $1/36$ (C) $1/8$
(B) $1/12$ (D) $1/4$
114. \oplus and \odot are two operators on numbers p and q such that $p \odot q = p - q$, and $p \oplus q = p \times q$. Then, $(9 \odot (6 \oplus 7)) \odot (7 \oplus (6 \odot 5)) =$
- (A) 40 (C) -33
(B) -26 (D) -40
115. Four persons P, Q, R and S are to be seated in a row. R should not be seated at the second position from the left end of the row. The number of distinct seating arrangements possible is:

- (A) 6 (C) 18
(B) 9 (D) 24

Q. 116 – Q. 120 Multiple Choice Question (MCQ), carry TWO marks each (for each wrong answer: -2/3).

116. On a planar field, you travelled 3 units East from a point O. Next you travelled 4 units South to arrive at point P. Then you travelled from P in the North-East direction such that you arrive at a point that is 6 units East of point O. Next, you travelled in the North-West direction, so

that you arrive at point Q that is 8 units North of point P.

The distance of point Q to point O, in the same units, should be _____

- (A) 3 (C) 5
(B) 4 (D) 6

117. The author said, "Musicians rehearse before their concerts. Actors rehearse their roles before the concerts. Actors rehearse their roles before the opening of a new play. On the other hand, I find it strange that many public speakers think they can just walk on to the stage and start speaking. In my opinion, it is no less important for public speakers to rehearse their talks."

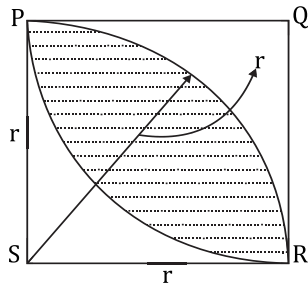
Based on the above passage, which one of the following is TRUE?

- (A) The author is of the opinion that rehearsing is important for musicians, actors and public speakers
(B) The author is of the opinion that rehearsing is less important for public speakers than for musicians and actors
(C) The author is of the opinion that rehearsing is more important only for musicians than public speakers.
(D) The author is of the opinion that rehearsal is more important for actors than musicians.

118. 1. Some football players play cricket.
2. All cricket players play hockey.
Among the options given below, the statement that logically follows from the two statements 1 and 2 above, is:
- (A) No football player plays hockey.
(B) Some football players play hockey.
(C) All football players play hockey.
(D) All hockey players play football.

General Aptitude

119. In the figure shown, PQRS is a square. The shaded portion is formed by the intersection of sectors of circles with radius equal to the side of the square and centers at S and Q.



The probability that any point picked randomly within the square falls in the shaded area is ____

- (A) $4 - \pi/2$ (C) $\pi/2 - 1$
(B) $1/2$ (D) $\pi/4$
120. In an equilateral triangle PQR, side PQ is divided into four equal parts, side QR is divided into six equal parts and side PR is divided into eight equal parts. The length of each subdivided part in cm is an integer.

The minimum area of the triangle PQR possible, in cm^2 , is

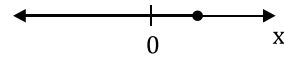
- (A) 18 (C) $48\sqrt{3}$
(B) 24 (D) $144\sqrt{3}$

GATE AE - 2022

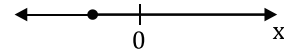
Q. 121 - Q. 125 carry one mark each.

121. Writing too many things on the _____ while teaching could make the students get _____.
(A) bored / board (C) board / board
(B) board / bored (D) bored / bored
122. Which one of the following is a representation (not to scale and in bold) of all values of x satisfying the inequality $2 - 5x \leq -\frac{6x-5}{3}$ on the real number line?

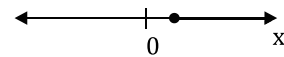
(A)



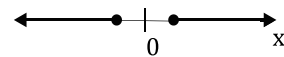
(B)



(C)



(D)



123. If $f(x) = 2 \ln(\sqrt{e^x})$, what is the area bounded by $f(x)$ for the interval $[0, 2]$ on the x -axis?

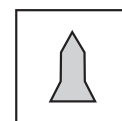
- (A) $1/2$ (C) 2
(B) 1 (D) 4

124. A person was born on the fifth Monday of February in a particular year.

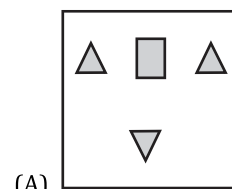
Which one of the following statements is correct based on the above information?

- (A) The 2nd February of that year is a Tuesday
(B) There will be five Sundays in the month of February in that year
(C) The 1st February of that year is a Sunday
(D) All Mondays of February in that year have even dates

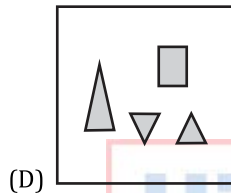
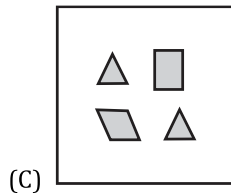
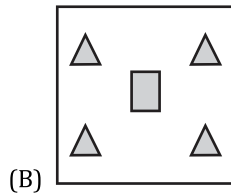
125.



Which one of the groups given below can be assembled to get the shape that is shown above using each piece only once without overlapping with each other?
(rotation and translation operations may be used).



(A)



Q. 126 – Q. 130 Carry TWO marks each.

126. Fish belonging to species S in the deep sea have skins that are extremely black (ultra-black skin). This helps them not only to avoid predators but also sneakily attack their prey. However, having this extra layer of black pigment results in lower collagen on their skin, making their skin more fragile. Which one of the following is the CORRECT logical inference based on the information in the above passage?
- (A) Having ultra-black skin is only advantageous to species S
- (B) Species S with lower collagen in their skin are at an advantage because it helps them avoid predators
- (C) Having ultra-black skin has both advantages and disadvantages to species S
- (D) Having ultra-black skin is only disadvantageous to species S but advantageous only to their predators

127. For the past m days, the average daily production at a company was 100 units per day. If today's production of 180 units changes the average to 110 units per day, what is the value of m ?

(A) 18 (C) 7
(B) 10 (D) 5

128. Consider the following functions for non-zero positive integers, p and q .

$$f(p, q) = \underbrace{p \times p \times p \times \dots \times p}_{q \text{ terms}} = p^q; f(p, 1) = p$$

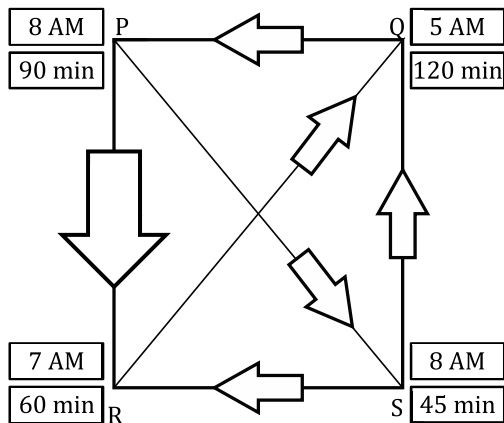
$$g(p, q) = p^{p^{p^{p^{\dots}}}} \text{ (upto } q \text{ terms)}; g(p, 1) = p$$

Which one of the following options is correct based on the above?

- (A) $f(2, 2) = g(2, 2)$
(B) $f(g(2, 2), 2) < f(2, g(2, 2))$
(C) $g(2, 1) \neq f(2, 1)$
(D) $f(3, 2) > g(3, 2)$

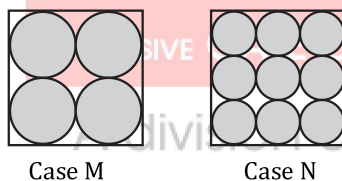
129. Four cities P, Q, R and S are connected through one-way routes as shown in the figure. The travel time between any two connected cities is one hour. The boxes beside each city name describe the starting time of first train of the day and their frequency of operation. For example, from city P, the first trains of the day start at 8 AM with a frequency of 90 minutes to each of R and S. A person does not spend additional time at any city other than the waiting time for the next connecting train. If the person starts from R at 7 AM and is required to visit S and return to R, what is the minimum time required?

General Aptitude



- (A) 6 hours 30 minutes
(B) 3 hours 45 minutes
(C) 4 hours 30 minutes
(D) 5 hours 15 minutes

130. Equal sized circular regions are shaded in a square sheet of paper of 1 cm side length. Two cases, case M and case N, are considered as shown in the figures below. In the case M, four circles are shaded in the square sheet and in the case N, nine circles are shaded in the square sheet as shown. What is the ratio of the areas of unshaded regions of case M to that of case N?



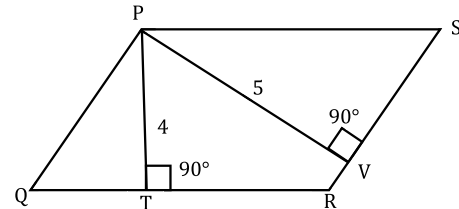
- (A) 2 : 3
(B) 1 : 1
(C) 3 : 2
(D) 2 : 1

GATE AE - 2023

Q. 131 – Q. 135 carry one mark each.

131. "You are delaying the completion of the task. Send _____ contributions at the earliest."
(A) you are (C) you're
(B) your (D) yore
132. References : _____ : Guidelines : Implement
(By word meaning)
(A) Sight (C) Cite
(B) Site (D) Plagiarise

133. In the given figure, PQRS is a parallelogram with $PS = 7$ cm, $PT = 4$ cm and $PV = 5$ cm. What is the length of RS in cm? (The diagram is representative.)



- (A) $20/7$ (C) $9/2$
(B) $28/5$ (D) $35/4$

134. In 2022, June Huh was awarded the Fields medal, which is the highest prize in Mathematics.

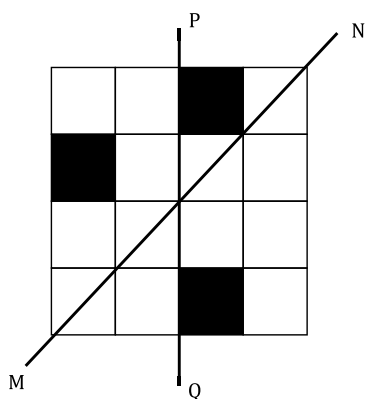
When he was younger, he was also a poet. He did not win any medals in the International Mathematics Olympiads. He dropped out of college.

Based only on the above information, which one of the following statements can be logically inferred with certainty?

- (A) Every Fields medalist has won a medal in an International Mathematics Olympiad.
(B) Everyone who has dropped out of college has won the Fields medal.
(C) All Fields medalists are part-time poets.
(D) Some Fields medalists have dropped out of college.

135. A line of symmetry is defined as a line that divides a figure into two parts in a way such that each part is a mirror image of the other part about that line.

The given figure consists of 16 unit squares arranged as shown. In addition to the three black squares, what is the minimum number of squares that must be coloured black, such that both PQ and MN form lines of symmetry? (The figure is representative)



- (E) 3 (G) 5
(F) 4 (H) 6

Q. 136 – Q. 140 Carry TWO marks Each.

136. Human beings are one among many creatures that inhabit an imagined world. In this imagined world, some creatures are cruel. If in this imagined world, it is given that the statement “Some human beings are not cruel creatures” is FALSE, then which of the following set of statement(s) can be logically inferred with certainty?

- All human beings are cruel creatures.
- Some human beings are cruel creatures.
- Some creatures that are cruel are human beings.
- No human beings are cruel creatures.

- (A) only (i) (C) only (i) and (ii)
(B) only (iii) and (iv) (D) (i), (ii) and (iii)

137. To construct a wall, sand and cement are mixed in the ratio of 3:1. The cost of sand and that of cement are in the ratio of 1:2.

If the total cost of sand and cement to construct the wall is 1000 rupees, then what is the cost (in rupees) of cement used?

- (A) 400 (B) 800
(C) 600 (D) 200

138. The World Bank has declared that it does not plan to offer new financing to Sri Lanka, which is battling its worst economic crisis in decades, until the country has an adequate macroeconomic policy framework in place. In a statement, the World Bank said Sri Lanka needed to adopt structural reforms that focus on economic stabilisation and tackle the root causes of its crisis. The latter has starved it of foreign exchange and led to shortages of food, fuel, and medicines. The bank is repurposing resources under existing loans to help alleviate shortages of essential items such as medicine, cooking gas, fertiliser, meals for children, and cash for vulnerable households.

Based only on the above passage, which one of the following statements can be inferred with certainty?

- According to the World Bank, the root cause of Sri Lanka’s economic crisis is that it does not have enough foreign exchange.
- The World Bank has stated that it will advise the Sri Lankan government about how to tackle the root causes of its economic crisis.
- According to the World Bank, Sri Lanka does not yet have an adequate macroeconomic policy framework.
- The World Bank has stated that it will provide Sri Lanka with additional funds for essentials such as food, fuel, and medicines.

139. The coefficient of x^4 in the polynomial $(x - 1)^3(x - 2)^3$ is equal to ____.

- (A) 33 (C) 30
(B) -3 (D) 21

General Aptitude

140. Which one of the following shapes can be used to tile (completely cover by repeating) a flat plane, extending to infinity in all directions, without leaving any empty spaces in between them? The copies of the shape used to tile are identical and are not allowed to overlap.

(A) circle
(B) regular octagon
(C) regular pentagon
(D) rhombus

GATE AE - 2024

Q. 141 – Q. 145 carry one mark each.

141. If '→' denotes increasing order of intensity, then the meaning of the words [dry → arid → parched] is analogous to [diet → fast → ____]. Which one of the given options is appropriate to fill the blank?

(A) starve (C) feast
(B) reject (D) deny

142. If two distinct non-zero real variables x and y are such that $(x + y)$ is proportional to $(x - y)$ then the value of

(A) depends on xy
(B) depends only on x and not on y
(C) depends only on y and not on x
(D) is a constant

143. Consider the following sample of numbers:

9, 18, 11, 14, 15, 17, 10, 69, 11, 13

The median of the sample is

(A) 13.5 (C) 11
(B) 14 (D) 18.7

144. The number of coins of ₹1, ₹5, and ₹10 denominations that a person has are in the ratio 5:3:13. Of the total amount, the percentage of money in ₹5 coins is

(A) 21% (C) 10%
(B) $14\frac{2}{7}\%$ (D) 30%

145. For positive non-zero real variables p and q , if $\log(p^2 + q^2) = \log p + \log q + 2 \log 3$,

then, the value of $\frac{p^4 + q^4}{p^2 q^2}$ is

(A) 79 (C) 9
(B) 81 (D) 83

Q. 6 – Q. 10 carry two marks each.

146. In the given text, the blanks are numbered (i)–(iv). Select the best match for all the blanks. Steve was advised to keep his head (i) before heading (ii) to bat; for, while he had a head (iii) batting, he could only do so with a cool head s (iv) his shoulders.

(A) (i) down (ii) down (iii) on (iv) for
(B) (i) on (ii) down (iii) for (iv) on
(C) (i) down (ii) out (iii) for (iv) on
(D) (i) on (ii) out (iii) on (iv) for

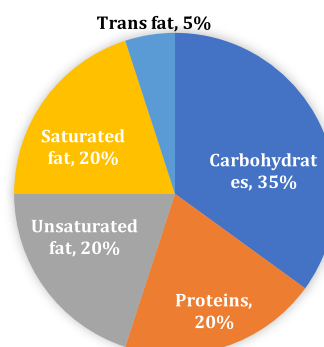
147. A rectangular paper sheet of dimensions $54 \text{ cm} \times 4 \text{ cm}$ is taken. The two longer edges of the sheet are joined together to create a cylindrical tube. A cube whose surface area is equal to the area of the sheet is also taken.

Then, the ratio of the volume of the cylindrical tube to the volume of the cube is

(A) $1/\pi$ (C) $3/\pi$
(B) $2/\pi$ (D) $4/\pi$

148. The pie chart presents the percentage contribution of different macronutrients to a typical 2,000 kcal diet of a person.

MACRONUTRIENT ENERGY CONTRIBUTION



The typical energy density (kcal/g) of these macronutrients is given in the table.

Macronutrient	Energy density (kcal/g)
Carbohydrates	4
Proteins	4
Unsaturated fat	9
Saturated fat	9
Trans fat	9

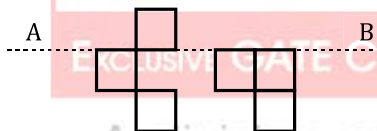
The total fat (all three types), in grams, this person consumes is

- (A) 44.4 (C) 100
(B) 77.8 (D) 3,600

149. A rectangular paper of $20 \text{ cm} \times 8 \text{ cm}$ is folded 3 times. Each fold is made along the line of symmetry, which is perpendicular to its long edge. The perimeter of the final folded sheet (in cm) is

- (A) 18 (C) 20
(B) 24 (D) 21

150. The least number of squares to be added in the figure to make AB a line of symmetry is



- (A) 6 (C) 5
(B) 4 (D) 7

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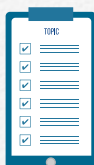
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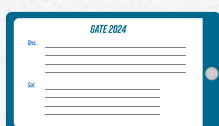
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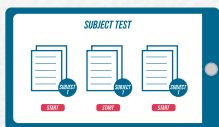
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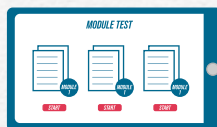
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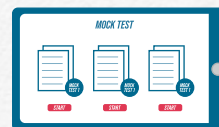
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General Aptitude

Answer Keys General Aptitude

1	B	2	B	3	D	4	B	5	D
6	C	7	C	8	D	9	B	10	B
11	D	12	B	13	B	14	C	15	C
16	B	17	C	18	A	19	B	20	C
21	C	22	C	23	D	24	A	25	C
26	A	27	B	28	A	29	C	30	A
31	B	32	C	33	C	34	D	35	B
36	C	37	C	38	C	39	B	40	C
41	A	42	B	43	D	44	C	45	1300 to 1300
46	D	47	B	48	180 to 180	49	D	50	B
51	A	52	C	53	B	54	B	55	B
56	C	57	C	58	280 to 280	59	C	60	B
61	C	62	B	63	B	64	B	65	C
66	120 to 120	67	C	68	C	69	A	70	7 to 7
71	C	72	A	73	B	74	A	75	D
76	A	77	D	78	C	79	C	80	B
81	D	82	A	83	B	84	A	85	C
86	C	87	C	88	Marks to All	89	D	90	B
91	C	92	C	93	C	94	C	95	A
96	C	97	A	98	C	99	B	100	D
101	A	102	B	103	B	104	C	105	A
106	A	107	B	108	C	109	C	110	B
111	B	112	B	113	D	114	D	115	C
116	C	117	A	118	B	119	C	120	D
121	B	122	C	123	C	124	A	125	B or C
126	C	127	C	128	A	129	A	130	B
131	B	132	C	133	B	134	D	135	C
136	D	137	A	138	C	139	A	140	D
141	A	142	D	143	A	144	C	145	A
146	C	147	A	148	C	149	A	150	A

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