Section 1 - Basic Mathematics

1) Anil can do a piece of work in 16 days which Shashi can finish in 24 days. If they work on alternate days with Anil starting, in how many days the work will be finished?

A) 15 days

B) 17 days

C) 18 days

D) 19 days

2) Three identical discs have one side painted in blue color and the other in green color. These three discs are tossed simultaneously. What is the probability of getting more blue faces than the green faces, when tossed?

A) 3 / 4

B) 1 / 4

C) 1 / 2

D) 1 / 3

3) A circle is inscribed in an equilateral triangle of side 20 cm, touching its sides. What is the area of the circle?

A) 50π cm²

B) $50\pi/3$ cm²

C) $100\pi/3$ cm²

D) 100π cm²

4) The probability of getting exactly 4 tails when 6 unbiased coins are tossed is

A) $\dfrac{15}{64}$

B) $\dfrac{31}{64}$

C) $\dfrac{3}{32}$

D) $\dfrac{31}{32}$

5) 4 years ago, Swapna's mother was 3 times as old as Swapna. After 6 years she will be twice as old as Swapna. Present age (in years) of Swapna's mother is

A) 39

B) 36

C) 34

D) 24

6) If A's income is 60% more than that of B's income, then by how much percent is B's income less than that of A?

A) 25.5

B) 37.5

C) 60

D) 80

7) P alone can finish a job in 12 days while Q can do so in 16 days. With the help of R, they have finished the job in 4 days for a contract price of ₹ 1,200. How much should R get out of it?

A) ₹ 300

B) ₹ 400

C) ₹ 500

D) ₹ 600

8) The smallest number that leaves remainder 7 when divided by 35, 56 and 91, is

A) 2345

B) 3647

C) 3847

D) 4547

9) What percentage of 60 is 12?

A) 12

B) 16

C) 20

D) 24

10) The price of each apple is ₹ 10 and that of each mango is ₹ 15. If a bag contains 40 apples and 20 mangoes, then what is the approximate average price per fruit in the bag?

A) ₹ 12.5

B) ₹ 11.7

C) ₹ 10.5

D) ₹ 9.6

11) If the speed of Anil and Barun are 40 m/s and 40 km/hr respectively, then the ratio of time taken to cover a certain distance by them is

A) 1:1

B) 5:18

C) 1:2

D) 18:5

12) What is the distance travelled by the tip of the minute hand of a wall clock in 2 days if the length of the minute hand is 7 cm?

A) 88 cm

B) 528 cm

C) 2112 cm

D) 4224 cm

13) Two cylinders of same volume have their radii in the ratio 3:1. What is the ratio of their heights?

A) 1:3

B) 3:1

C) 1:9

D) 9:1

14) The ages of A, B and C are 8 years 10 months, 15 years 6 months, 12 years 5 months respectively. What is the average age of A, B and C?

A) 10 years 2 months

B) 12 years 3 months

C) 13 years 6 months

D) 13 years 9 months

15) If $a : b = 5 : 7$, then the ratio $(5a + 7b) : (3a + 4b)$ is

A) 43 : 74

B) 76 : 43

C) 74 : 43

D) 43 : 76

16) Seeta and Geeta had certain number of chocolates with them. If Geeta gives 5 chocolates to Seeta, the ratio of the chocolates with Geeta and Seeta will be 3:2, whereas If Seeta gives 5 chocolates to Geeta, then the ratio of the chocolates with Geeta and Seeta will be 4:1. How many chocolates Geeta had initially?

A) 35

B) 25

C) 20

D) 15

17) Average age of a group of 10 students is 12 years. If 5 new students join them, then the average age of the group increases by 1 year. The average age of the new students is

A) 13 years

B) 15 years

C) 16 years

D) 18 years

18) Sum of the ages of father and son is 68. After 8 years father will be thrice as old as son. The present age (in years) of the son is

A) 18

B) 16

C) 15

D) 13

19) A's present age in years is 20% of B's age. After 30 years, A's age will be 1/2 of B's. The sum of the present ages of A and B is

A) 40 years

B) 60 years

C) 80 years

D) 100 years

20) When 2 unbiased dice are rolled, what is the probability that the sum on the top of the faces is greater than 10?

A) 1/12

B) 1/6

C) 1/4

D) 1/2

21) 'P + Q' means P is the wife of Q. 'P - Q' means P is the husband of Q. 'P ÷ Q' means P is the son of Q. 'P x Q' means P is the brother of Q. As per A x Q + B + S + C, how is C related to A's Father?

A) Brother
B) Father
G) Grandfather
D) Son
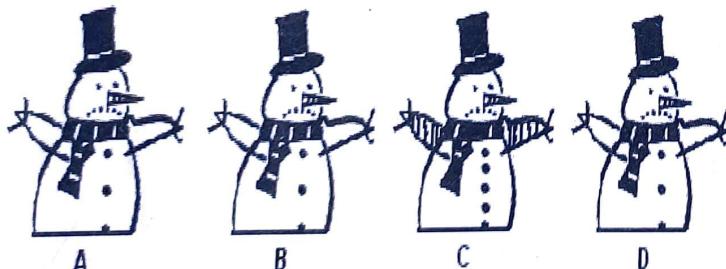
22) Town A is towards the West of town B. Town C is towards the North of town A. Town E is towards the West of town C. Town E is towards which direction of town B?

A) South-east
B) North-west
C) North-east
D) South-west

23) In certain language, [RA SA HA] is coded as [&& ^^ **], [MA LA RA] is coded as [^^ %% ##], [SA MA RA] is coded as [%% ^^ **] and [MA HA LA] is coded as [%% && ##]. What is the code for "LA"?
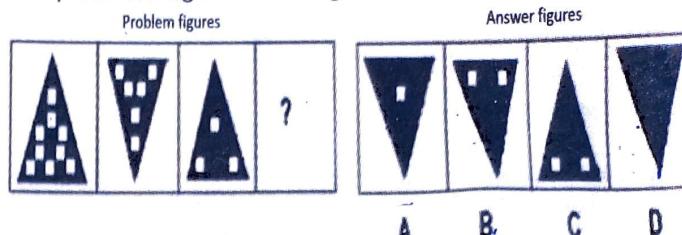
A) &&
B) ##
C) **
D) ^^

24) In this question, out of the four figures, three are similar in a certain manner. However, one figure is NOT like the other three. Select the figure which is different from the rest.

A
B
C
D

A) A
B) B
C) C
D) D

25) Which of the figures given in the answer figures will complete the figural series given in the problem figures?

Problem figures   Answer figures

A   B.   C   D

A) A
B) B
C) C
D) D

26) X starts walking from the place 'A'. He walks 4 km East and reaches place 'B', then turns right. After going 3 km straight he stops at the place 'C'. What is the shortest distance between 'A' and 'C'?

A) 4 km
B) 5 km
C) 6 km
D) 7 km

27) In a class of 180 students, 90 students speak Bengal 70 students speak Marathi and 50 students do NOT speak any of these two languages. How many students speak both the languages?

A) 30
B) 40
C) 60
D) 55

28) What is the next term in the given series?

21, 63, 252, 1260, ____

A) 2470
B) 7560
C) 3056
D) 9046

29) As per the code represented below, what is the coded symbol for 971254?

| Digit	5	1	3	4	9	6	8	2	7
Symbol	P	A	K	%	R	@	d	©	M
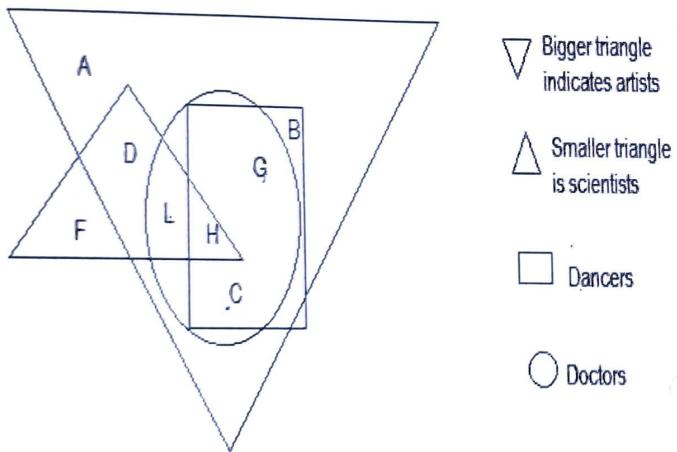
A) RMA©P@

B) MMP©P%

C) RMA©P%

D) RMA©d%

30) Select the alternative that will make the second pair analogous to the first pair given as:

3 : Tri :: 10 : _____

A) Femto

B) Deca

C) Nano

D) Quad

31) Directions: Study the following figure and answer the question that follows:

▽ Bigger triangle indicates artists

△ Smaller triangle is scientists

☐ Dancers

◯ Doctors

Which letters represent the artists who are doctors as well as dancers but not scientists?

A) L and H

B) G and C

C) G and H

D) C and H

32) In a certain code, if TRAIN is coded as PTCKJ, then how is PLATFORM coded in the same code?

A) LNCVHQTI

B) TKCPENSN

C) QMBUGPSN

D) TMBUEQTO

33) What is the missing term in the given series?

1/4, 1/8, 1/16, ____, 1/64

A) 1 / 22

B) 1 / 32

C) 1 / 24

D) 1 / 34

34) Select the alternative that will make the second pair analogous to the first pair given as:

Century : 100 :: Millennium : _____

A) 10,00,000

B) 1,00,000

C) 10,000

D) 1,000

35) Sheetal is the sister of Babita's daughter's brother. How is Babita related to Sheetal?

A) Mother

B) Niece

C) Nephew

D) Sister

36) Naveen's father's only daughter's son is Arnav. How is Arnav related to Naveen?
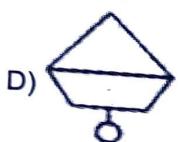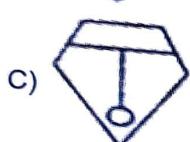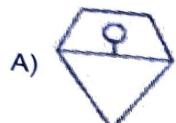
A) Nephew

B) Brother

C) Son

D) Uncle

37) The missing term in the series

11, 10, _____, 27, 66.5, 198.5 is

A) 14

B) 16

C) 21

D) 19
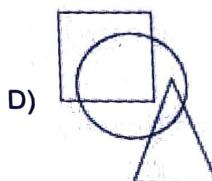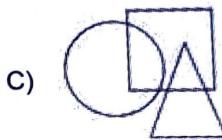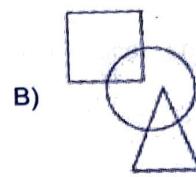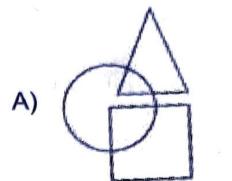
38) Which of the following figures will complete the analogy given below?

A)

B)

C)

D)

39) Meena walked 26.6 m to the South. She turns to her right and walks 19.5 m. Next she moves 23.4 m to her left. Next she moves 8.5 m to her left. How far is she from her starting point?

A) 45.20 m
B) 51.19 m
C) 72.45 m
D) 32.75 m

40) In this question, out of the four figures, three are s in a certain manner. However, one figure is NOT lil other three. Select the figure which is different fro rest.

A)

B)

C)

D)

Section 3 - Basic English

Read the following passage and answer the questions:

The gramophone is so common now, that we have ceased to wonder at it. Yet it is a truly wonderful invention; and even now, if we give it a thought, we cannot help marvelling that it is possible to catch such a fleeting thing as sound, and record it in such a way that it can be repeated and reproduced at will, so that we can actually hear the very words and the tones of the voice of a man who died, it may be, years ago.

The uses of the gramophone, or talking machine, are many. Its main use is to give pleasure- all the pleasure that music can give. It is a great boon to music lovers who have little opportunity of hearing good music, such as those who live in small country places, or in foreign lands far from civilizations. Such people can listen to the voices of the greatest singers and the finest orchestras of the day; for the gramophone is now so perfect that a good machine reproduces the finest shades of tone and expression of human voice and of musical instruments.

It has, too, its educational uses, especially in teaching music and singing. A singer, by listening to a song sung by some great master, can learn how that song should be sung; and he can have the song repeated over and over again, until he has mastered it.

41) Music lovers felt that the gramophone is a boon because they could

A) be a part of the new civilization.
B) listen to good music.
C) popularise famous music.
D) learn their favorite numbers.

42) The gramophone is a wonderful invention because

A) it is common these days.
B) it reproduces the exact picture.
C) it catches a fleeting thing such as sound.
D) it is used to capture the voice of a person who is dead.

43) The main use of a gramophone is to

A) produce sound
B) record tones
C) give pleasure
D) offer solace

44) It is useful for students because it helps them to

A) repeat the song till they master it.
B) listen to religious songs.
C) listen to special music.
D) learn songs sung by dead people.

45) On the gramophone, we listen to

A) voices of the greatest singers and the finest orchestras
B) only a shade of a tone
C) only emotions of human voice
D) forgotten songs

46) Fill in the blanks with the correct option:

He _____ confident even when he faces severe problems.

A) remain
B) were remaining
C) have been remained
D) remains

47) Identify the synonym of the underlined word; .

The stream had cut a _rift_ in the rock.

A) Rig
B) Tunnel
C) Channel
D) Crack

48) Choose the word that is spelt correctly and fill the blanks:

A river can change its _____ .

A) coursse
B) corrse
C) coarse
D) course

49) Fill in the blanks with the correct option:

_____ energy generated by _____ windmill drives all the drainage pumps.

A) An, No Article
B) The, a
C) No Article, an
D) A, No Article

50) Fill in the blanks with the correct option:

He _____ his left hand so typed with one hand.

A) had injured
B) injures
C) have injured
D) injure

51) **Fill in the blanks with the correct option**

Even after _____ years, everything has remained _____ same.

A) much, all
B) several, much
C) the, the
D) many, the

52) Identify the synonym of the italicised word:

The middle aged man is a *brilliant* lawyer.

A) Studious
B) Culpable
C) Stupid
D) Bright

53) Select the right antonym for the underlined word.

People do not <u>mimic</u> their idols, but adore them.

A) praise
B) mock
C) joke
D) ridicule

54) Fill in the blanks with the correct option:

All the best bargains were snapped up _____ hours.

A) at
B) with
C) within
D) till

55) Fill in the blanks with the correct option:
This book contains _____ series of elementary exercises for learners.

A) a
B) No Article
C) an
D) the

56) Choose the word that is spelt correctly and fill the blanks:
He lacked the _____ to take up the project.

A) confidanse
B) confidance
C) confidense
D) confidence

57) Choose the antonym of the underlined word.

The couple <u>fled</u> from home in the night.

A) arrived
B) deserted
C) absconded
D) retreated

58) Which of the following is a Declarative sentence?

A) The sun rises in the east.
B) Please let me work.
C) How hot it is!
D) Have you done your home-work?

59) Choose the answer option which will CORRECTLY fill the blank:

_____ the people you invited are coming.

A) Any
B) Each
C) This
D) All

60) Fill in the blanks with the correct option:
The children were scared when the train was passing _____ a tunnel.

A) in
B) through
C) over
D) below

Section 4 - General Awareness and Science

61) Who among the following players won the French Open Tennis Men's Singles Title in 2019?

A) Kevin Anderson
B) Dominic Thiem
C) Rafael Nadal
D) Novak Djokovic

62) Who among the following was the Chief Guest for the 2020 Republic Day celebrations in India?

A) Donald Trump
B) Ashraf Ghani
C) Maithripala Sirisena
D) Jair Messias Bolsonaro

63) As per the 2011 Census data, in which of the following union territories the female population outnumbers the male population?

A) Chandigarh
B) Lakshadweep
C) Andaman and Nicobar
D) Puducherry

64) Who among the following was awarded the Padma Vibhushan-2020 for his/her exceptional and distinguished service in the field of Sports?

A) P.V. Sindhu
B) Jitu Rai
C) Gagan Narang
D) Mary Kom

65) Which of the following communities celebrate the Hemis festival in honour of Guru Padmasambhava's birth anniversary?

A) Buddhists
B) Sikhs
C) Christians
D) Parsis

66) The most commonly used bleaching agent for disinfecting drinking water supply is

A) Phenyl
B) Chlorine
C) Alcohol
D) Distilled water

67) Read the following statements and choose the CORRECT option.

(i) Kashmiri language spoken in the Union Territory of Jammu and Kashmir is also known as Koshur.

(ii) Kashmiri language is not included in the Eighth Schedule of the Indian Constitution.

A) (i) is TRUE and (ii) is TRUE
B) (i) is TRUE and (ii) is FALSE
C) (i) is FALSE and (ii) is TRUE
D) (i) is FALSE and (ii) is FALSE

68) Which one of the following options is matched INCORRECTLY?

A) Fuel cell - Chemical energy is converted into Electrical energy
B) Loud speaker - Sound energy is converted into Electrical energy
C) Photovoltaic cell - Light energy is converted into Electrical energy
D) Electric motor - Electrical energy is converted into Mechanical energy

69) Which of the following characteristic(s) of a sound wave determine the loudness of the sound?

(i) Frequency

(ii) Amplitude

(iii) Timbre

A) Only (i) and (ii)
B) Only (iii)
C) Only (ii)
D) Only (i) and (iii)

70) Originally called "The Bombay Times and Journal of Commerce", this paper was founded in 1838 in Mumbai (then Bombay), to serve the British residents of western India. Identify the newspaper.

A) The Tribune
B) The Times of India
C) The Hindu
D) The New Indian Express

71) Identify the INCORRECT match between the element and its corresponding chemical symbol.

A) Calcium – Ca
B) Aluminium – Al
C) Sodium – So
D) Chlorine – Cl

72) Identify the film which is India's official entry for Oscars 2020 under the Foreign Language Film category.

A) Newton
B) Mukti Bhawan
C) Gully Boy
D) Village Rockstars

73) Vitamins are substances that our body needs to grow and develop normally. The vitamin prepared in our body with the help of sunlight is

A) Vitamin D
B) Vitamin A
C) Vitamin K
D) Vitamin E

74) Identify the Wildlife Sanctuary in the Jammu and Kashmir region dominated by Bamboo Plantation.

A) Nandini Wildlife Sanctuary
B) Jasrota Wildlife Sanctuary
C) Surinsar Mansar Wildlife Sanctuary
D) Lachipora Wildlife Sanctuary

75) Who is the sixth Indian cricketer officially inducted into the ICC Hall of Fame in 2019?

A) Sachin Tendulkar
B) Rahul Dravid
C) Anil Kumble
D) Mahendra Singh Dhoni

76) Which of the following statements is FALSE with reference to Bahu Fort?

A) It was originally constructed by Raja Bahulochan
B) It houses a temple dedicated to the Hindu goddess Kali within its premises
C) It is a historical fort situated on the banks of river Chenab
D) It houses a royal garden called Bagh-e-Bahu

77) The theme for sixth International Yoga Day was:

A) Yoga at Home - Yoga for Peace
B) Yoga for Health - Yoga at Home
C) Yoga for Climate Action
D) Yoga for Harmony and Peace

78) During winter season, the Northeast Trade winds cause rainfall in which of the following regions of India?

A) Gujarat region
B) Tamil Nadu region
C) Valley of Kashmir
D) Upper Assam plains

79) Which among the following Union Territories is also the capital of two neighbouring states in India?

A) Ladakh
B) Chandigarh
C) Delhi
D) Puducherry

80) India achieved its best ever medal haul at the Asian Games 2018. How many Gold medals did India win?

A) 12
B) 15
C) 18
D) 24

81) Given below is a sequence of districts of the union territory of Jammu and Kashmir arranged in the North South direction. Identify the CORRECT option.

A) Gandarbal-Anantnag-Ramban-Jammu
B) Jammu-Anantnag-Ramban-Gandarbal
C) Anantnag-Ramban-Jammu-Gandarbal
D) Gandarbal-Anantnag-Jammu-Ramban

82) The act of transferring pollen grains from the ma anther of a flower to the female stigma is called:

A) Photosynthesis
B) Polarization
C) Pollination
D) Polymerisation

83) Which of the following classical dance forms originated in Northern India?

A) Kathak

B) Bharatanatyam

C) Mohiniyattam

D) Kuchipudi

84) The Ozone gas found in which of the following layers of the atmosphere absorbs harmful UV radiations and prevents them from reaching the earth's surface?

A) Troposphere

B) Stratosphere

C) Mesosphere

D) Thermosphere

85) Identify the legislative act that sought to create political equality by vesting Indian judges with the power to try the Europeans or the British citizens residing in India.

A) Morley-Minto Reforms

B) Cripps Mission

C) Pitts India Act

D) Ilbert Bill

86) Which of the following teams won the FIFA World Cup 2018?

A) Germany

B) France

C) Croatia

D) Brazil

87) Water pollution occurs when harmful substances like microorganisms contaminate a water body degrading the water quality and rendering it toxic to humans or the environment. Which one of the following diseases is NOT due to contamination of water?

A) Malaria

B) Tuberculosis

C) Cholera

D) Typhoid

88) Identify the CORRECT option with reference to the popular cuisine of Jammu and Kashmir region.

(i) Kahwah - A green tea prepared with different spices, walnuts or almonds and saffron

(ii) Gushtaba - A preparation of spicy yogurt gravy containing meatballs

(iii) Nadru Yakhni - Banana stems cooked with mild aromatic spices and yogurt

A) (i) - TRUE, (ii) - FALSE, (iii) - TRUE

B) (i) - TRUE, (ii) - TRUE, (iii) - FALSE

C) (i) - FALSE, (ii) - TRUE, (iii) - FALSE

D) (i) - FALSE, (ii) - FALSE, (iii) - TRUE

89) The paintings that adorn the walls and ceilings of the Ajanta and Ellora caves depict incidents from the life of lord

A) Mahavir

B) Buddha

C) Parashurama

D) Narsimha

90) Read the following statements and choose the CORRECT option.

(i) Excavations by the Archaeological Survey of India have established the fact that Akhnoor was one of the last Bastion of Harappan Civilization and Manda.

(ii) Akhnoor is believed to be the only early Buddhist site in Jammu, the excavations have found remains of Stupas and Buddhist terracotta.

A) (i) is TRUE and (ii) is FALSE

B) (i) is TRUE and (ii) is TRUE

C) (i) is FALSE and (ii) is FALSE

D) (i) is FALSE and (ii) is TRUE

91) Any princely state under the direct or indirect control of the East India Company where the ruler did not have a legal male heir would be annexed by the company. This policy was devised by

A) Lord Curzon

B) Lord Bentinck

C) Lord Macaulay

D) Lord Dalhousie

92) Kavaratti is the capital of which of the following Union Territories in India?

A) Andaman and Nicobar
B) Puducherry
C) Lakshadweep
D) Dadra and Nagar Haveli

93) Giddha is a popular folk dance performed only by the ladies. This dance is part of the culture of which of the following states in India?

A) Maharashtra
B) Gujarat
C) Punjab
D) Uttarakhand

94) This state was carved out of Madhya Pradesh in the year 2000. Identify the state and its capital from the following options.

A) Jharkhand, Ranchi
B) Chhattisgarh, Raipur
C) Uttarakhand, Dehradun
D) Telangana, Hyderabad

95) Where is Manas Tiger Reserve situated?

A) Andhra Pradesh
B) Karnataka
C) Assam
D) Arunachal Pradesh

96) Which of the following options is/are INCORRECT with reference to passes found in the Pir Panjal Range?

(i) Hajipir pass

(ii) Banihal pass

(iii) Khardungla pass

A) Only (i)
B) Only (ii)
C) Only (ii) and (iii)
D) Only (iii)

97) Match the following:

Sports Person	Sports
(i) Sania Mirza	(a) Badminton
(ii) Saina Nehwal	(b) Billiards
(iii) Pankaj Advani	(c) Wrestling
(iv) Sakshi Malik	(d) Tennis

A) (i) - (c), (ii) - (a), (iii) - (b), (iv) - (d)
B) (i) - (d), (ii) - (a), (iii) - (b), (iv) - (c)
C) (i) - (a), (ii) - (d), (iii) - (c), (iv) - (b)
D) (i) - (d), (ii) - (a), (iii) - (c), (iv) - (b)

98) The main block of Supreme Court building of India was designed by which of the following architects?

A) Anant Damodar Raje
B) Ganesh Bhikaji Deolalikar
G) Vasanth Kamath
D) Achyut Purushotham Kanvinde

99) Which of the following statements is/are INCORRECT?

(i) All latitudes are great circles

(ii) All longitudes are great circles

(iii) Equator is a great circle

(iv) Prime meridian is a great circle

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

100) Which of the following monuments was built b Mughal emperor Akbar to commemorate the victory ove Gujarat?

A) Jama Masjid
B) Buland Darwaza
C) Red Fort
D) Agra Fort