SCREENING TEST FOR ADMISSION TO CLASS XI - 2021

STREAM : COMMERCE WITH MATHS

Time : 2½ Hrs
Maximum Marks : 320

| Name of the Student | : |
| Application Number | : |

INSTRUCTIONS

1. Please write the name and application number of the candidate in the column given above.

2. This question booklet contains 80 questions. For each question, five answers are suggested and given against A, B, C, D and E of which only one will be the most appropriate answer. Darken the bubble containing the letter corresponding to the most appropriate answer in the OMR sheet, by using **blue or black ball point pen only.** The bubbles should be darkened fully.

3. **Negative Marking :** Each correct answer will be awarded four marks. One mark willbe deducted for each wrong answer. More than one answer marked against the questions will not be considered.

4. **Return both the answer booklet and the question booklet** to the invigilator at the end of the examination.

5. **Use of calculators and other electronic devices is not permitted.**

6. Rough work can be done only in the paper provided in the question booklet.

7. Immediately after opening this question booklet, the candidate should verify whether the question booklet issued contains all the 80 questions in serial order. If not, request for replacement.

8. **Any malpractice or attempt to commit any kind of malpractice in the examination hall will disqualify the candidate.**

PLEASE DO NOT OPEN THE SEAL UNTIL THE INVIGILATOR ASK FOR YOU TO DO SO

1. Each root of $x^2 - bx + c = 0$ is decreased by 2. The resulting equation is $x^2 - 2x + 1 = 0$, then
   A. b = 6, c = 9   B. b = 3, c = 5   C. b = 2, c = -1   D. b = -4, c = 3

2. Three bulbs red, green and yellow flash at intervals of 80 seconds, 90 seconds and 110 seconds. All three flash together at 8:00 am. At what will the three bulbs flash altogether again?
   A. 9:00 am   B. 9:12 am   C. 10:20 am   D. 10:12 am

3. The lengths of the diagonals of a rhombus are 24cm and 32cm. The length of the altitude of the rhombus is :
   A. 12 cm   B. 12.8 cm   C. 19 cm   D. 19.2 cm

4. The perimeter of the triangle formed by the points (0,0), (1,0) and (0,1) is
   A. $1 \pm \sqrt{2}$ B. $\sqrt{2} + 1$ C. 3   D. $2 + \sqrt{2}$

5. If $\sqrt{3} \cot^2\theta - 4\cot\theta + \sqrt{3} = 0$, then the value of $\cot^2\theta + \tan^2\theta$ is:
   A. $\dfrac{3}{10}$ B. $\sqrt{3}$ C. $\dfrac{1}{\sqrt{3}}$ D. $\dfrac{10}{3}$

6. If $3x = \sec\theta$ and $\dfrac{3}{x} = \tan\theta$, then $9\left(x^2 - \dfrac{1}{x^2}\right)$ is equal to
   A. 9   B. 1   C. 3   D. $\dfrac{1}{9}$

7. If the angle of elevation of the Sun is 60°, then find the ratio of the height of a tree with its shadow.
   A. $\sqrt{3} : 1$ B. $1 : \sqrt{3}$ C. 3 : 1   D. $\sqrt{2} : 1$

8. If two tangents inclined at an angle 60^0 are drawn to a circle of radius 5cm, then length of each tangent (in cm) is equal to:
   A. $\dfrac{5\sqrt{3}}{2}$ B. 10   C. 3   D. $5\sqrt{3}$

9. The perimeter of a sector of a circle of radius 5.7cm is 27.2cm. Find the area of the sector.
   A. 45.02 cm^2 B. 46.05 cm^2 C. 54.4 cm^2 D. 49.08 cm^2

10. A chord of a circle of radius 6 cm subtends an angle of measure 60° at the centre. Find the area of the minor segment formed by this chord.
    A. $3(2\pi - 3\sqrt{3})\ cm^2$ B. $3(3\pi - \sqrt{3})\ cm^2$

    C. $3(3\pi - 2\sqrt{3})\ cm^2$ D. $3(3\pi - 3\sqrt{3})\ cm^2$

11. If the total surface area of a solid hemisphere is 462cm², find its volume.
    A. $\dfrac{308}{3} cm^3$ B. $\dfrac{2156}{3} cm^3$ C. $\dfrac{5216}{3} cm^3$ D. $\dfrac{8624}{3} cm^3$

12. The ratio of the volume of a cube to that of the sphere which will exactly fit inside the cube is:
    A. 6: π B. 4: π C. 2: π D. 3: π

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13. The LCM of two numbers is 14 times their HCF. The sum of LCM and HCF is 600. If one number is 280, then find the other number.

    A. 560   B. 40   C. 80   D. 180

14. The largest number which divides 70 and 125, leaving remainder 5 and 8 respectively is:

    A. 65   B. 875   C. 13   D. 1750

15. If α and β are zeroes of the polynomial f(x) = $a x^2 + bx + c$ then $\dfrac{1}{\alpha^2} + \dfrac{1}{\beta^2}$ =

    A. $\dfrac{b^2 - 2ac}{a^2}$ B. $\dfrac{b^2 - 2ac}{c^2}$ C. $\dfrac{b^2 + 2ac}{a^2}$ D. $\dfrac{2b^2 - ac}{a^2}$

16. If the sum of the roots of the quadratic equation $3x^2 + (2k+1)x - (k+5) = 0$ is equal to the product of the roots, then the value of k is :

    A. 2   B. 3   C. 4   D. 5

17. Which of the following numbers is/are rational

$$\sqrt{\pi^2}, \quad \sqrt{0.001}, \quad \sqrt[4]{0.00016}, \quad \sqrt[3]{-1}$$

    A. $\sqrt[3]{-1}$ B. $\sqrt{\pi^2}$ C. $\sqrt{0.001}$ D. $\sqrt[4]{0.00016}$

18. If $\dfrac{x}{y} = \dfrac{2}{3}$ then the value of $\dfrac{4}{5} + \dfrac{y-x}{y+x}$

    A. 1   B. 0   C. 2   D. 5

19. The exponential form of $\sqrt{\sqrt{2\sqrt{3}}}$ is

    A. $6^{1/2}$ B. $6^{1/3}$ C. $6^{1/4}$ C. $6^{1/5}$

20. If X = cos 2° cos4° cos6° .... cos 100° then X is equal to

    A. 1   B. 0   C. $\dfrac{1}{2}$ D. $\dfrac{3}{2}$

21. Which among the following was the prime factor in the emergence of modern Nationalism in India?

    A. New symbols   B. New ideas   C. Icons   D.Anti colonial movement

22. Champaran satyagraha was launched by Gandhiji against

    A. High revenue demands   B. Indigo planters

    C. Mill owners   D. Salt tax

23. Which one of the following is not true regarding the Jallianwala Bagh incident?

    A. It took place on 10th April 1919

    B. Satyagrahis were forced to rub their noses on the ground and crawl on the streets.

    C. Its aim was to create a moral effect on the mind of the Satyagrahis

    D. Its aim was to create a feeling of terror and awe

24. The famous book by Gandhiji (1909)

    A. My experiments with truth   B. Hind Swaraj

    C. Discovery of India   D. Gitanjali

25. The Non-cooperation Khilafat movement began in:

    A. March 1921   B. February 1922   C. January 1921   D. December 1921

26. The Justice Party of Madras was formed by:

    A. Judges   B. Muslims   C. Brahmins   D. Non Brahmins

27. Who announced the vague offer of Dominion status for India in 1929?

    A. Lord Curzon   B. Viceroy Irwin   C. Lord William Bentick   D. Lord Mountbatten

28. Who organized Dalits into Depressed Classes Association?

    A. Dr. B.R. Ambedkar   B. Jawaharlal Nehru

    C. Mahatma Gandhi   D. Motilal Nehru

29. Who had given the slogan of "Do or Die" during Quit India Movement?

    A. Jawarharlal Nehru   B. Sardar Patel

    C. B.R Ambedkar   D. Mahtma Gandhi

30. Which of the following combination of colours was there in the 'Swaraj flag' designed by Gandhiji in 1921?

    A. red, green and white   B. red, green and yellow

    C. orange, white and green   D. yellow, white and green

31. Which one of the following is not true regarding the Civil Code of 1804?

    A. Abolition of all privileges based on birth

    B. Destruction of democracy in France

    C. Establishment of equality before law

    D. Securing right to property

32. In Germany the measuring unit 'Elle' was used to measure:

    A. Cloth   B. Thread

    C. Land   D. Height

33. Who among the following was described as' the most dangerous enemy of social order' by Duke Metternich

    A. Louis Philippe   B. Karol Kurpinski

    C. Giuseppe Mazzini   D. Johan Gottfried

34. Which of the following countries did not attend the Congress of Vienna?

    A. Britain   B. Russia

    C. Prussia   D. Switzerland

35. Who among the following founded the underground society namely 'Young Italy' in Marseilles?

    A. Metternich   B. Cavour

    C. Giuseppe Mazzini   D. Giuseppe Garibaldi

36. Which of the following is the northernmost international airport in India?

    A. Raja Sansi   B. Meenam Bakkam

    C. Indira Gandhi International   D. Netaji Subhash Chandra Bose

37. Land left without cultivation for one or less than one agricultural year is called

    A. Culturable waste land   B. Current fallow land

    C. Waste land   D. None of the above

38. Which one of the following statements is correct as regard to international resources?

    A. Resources which are regulated by international institutions.

    B. Resources which lie beyond the territorial waters.

    C. Resources which are found along the international frontier.

    D. Resources which are not yet developed.

39. What percentage of our land should be under forest according to the National Forest Policy (1952)?

    A. 33   B. 22.5

    C. 31   D. 30

40. Which country is the major importer of Indian yarn?

    A. Indonesia   B. Bhutan

    C. Japan   D. Spain

41. Which one of the following states is not connected with the H.V.J pipeline?

    A. Madhya Pradesh   B. Maharashtra

    C. Gujarat   D. Uttar Pradesh

42. What percentage of our cropped area is covered by oil seeds?

    A. 21   B. 12

    C. 2   D. 4

43. Black soil is deficient in

    A. Calcium carbonate   B. Magnesium

    C. Potash   D. Phosphoric contents

44. Which of the following national highways covers most of Rajasthan?

    A. NH 2   B. NH 34

    C. NH 23   D. NH 15

45. The most visible political institution in a democracy is ....

    A. Parliament   B. Election commission

    C. Political parties   D. Legislative Assembly

46. Which of the following is a centrist party in its ideological orientation?

    A. BJP   B. Indian National Congress

    C. CPIM   D. RSP

47. Which of the following is not a serious challenge for political parties?

    A. Lack of internal democracy   B. Dynastic succession

    C. Lack of funds   D. Money power and muscle power

48. Democracy is felt to be not so good in its............

    A. outcomes   B. Practice

    C. Procedures   D. Characteristics

49. Which one of the following gives recognition to political parties in India?

    A. Election commission   B. President of India

    C. Speaker of the Lok Sabha   D. Supreme court

50. Development of a country is generally determined by

    A. its percapita income   B. its literacy level

    C. health status of its people   D. all the above

51. Assume that there are four families in a country. The average percapita income of these families is Rs. 5000/-. If the income of three families is 4000, 7000 and 3000 respectively, What is the income of the fourth family?

    A. Rs. 7500   B. Rs. 3000

    C. Rs. 2000   D. Rs. 6000

52. GDP of a country is based on

    A. total value of goods and services   B. value of all final goods and services

    C. initial value of goods and services   D. aggragate value of inputs used in a year

53. Which one of the following is a public sector enterprise?

    A. TISCO   B. RIL

    C. Indian Railway   D. WIPRO

54. Improvement in transport has helped in promotion of ....

    A. globalisation   B. liberalisation

    C. Privatisation   D. None of the above

55. The most common route for investment by MNCs in countries around the world is to ....

    A. set up new factories   B. buy existing local companies

    C. partnership with local companies   D. Placing orders with small producers in less developed countries

56. Globalisation has led to improvement in living conditions of ....

    A. all people in developed countries   B. people in Latin American countries

    C. workers in developed countries   D. None of the above

57. Which one of the following facilitates the process of globalisation?

    A. WTO   B. WHO

    C. UNICEF   D. ILO

58. Investments made by MNCs in other countries is known as ....

    A. capital investment   B. corporate investment

    C. international investment   D. Foreign investment

59. Which one of the following terms specifies the quantity of goods which can be imported?

    A. Quotas   B. tariffs

    C. trade   D. GDP

60. With which of the following manufacturers did Ford India collaborate?

    A. Bajaj   B. Maruti

    C. Tata   D. Mahindra and Mahindra

61. The correct meaning of 'wild goose chase'

    A. to get into trouble   B. run away

    C. a search for something that is impossible to get

    D. look for or discover

62. He said, "I have been studying in this college for two years".

    A. He said he studied in that college for two years.

    B. He said he had studied in that college for two years.

    C. He said that I had studied in this college for two years

    D. He said that he had been studying in that college for two years.

63. He said that the book was very interesting.

    A. He said ,"The book has been very interesting".

    B. He said ,"The book had been very interesting".

    C. He said ,"The book would be very interesting".

    D. He said ,"The book is very interesting".

64. ——————— the teacher gave me a passing grade.

    A. After I took the test   B. After taking the test

    C. As I took the test   D. No improvement

65. Uneasy lies the head ———— wears the crown.

    A. who   B. that

    C. what   D. no improvement

66. He ——————— the charge brought against him

    A. disagreed   B. disowned

    C. denied   D. no improvement

67. ————— these two options could be the correct answer.

    A. Either one of   B. Any two of

    C. Either of   D. Any of

68. Several ministers ————— to meet the people tomorrow.

    A. have been expected   B. have been expecting

    C. are expected   D. is expected

69. You will come to my party tomorrow, —————

A. isn't it?

B. will not you?

C. won't you?

D. no improvement?

70. There was a ———— of drums.

A. role

B. droll

C. troll

D. roll

71. Everyone was ————— tears at his sad story.

A. moved by

B. moved to

C. moved in

D. moved with

72. We should ———— the rules.

A. cope with

B. conduce with

C. side with

D. comply with

73. This is a ———- story.

A. make off

B. made off

C. made up

D. make up

74. If she was selected ,she ———a good secretary.

A. would make

B. will make

C. can make

D. would have made

75. The crop will fail ———- it rains this week.

A. unless

B. until

C. till

D. when

76. He set up an institution of international ——— .

A. renown

B. repute

C. reputation

D. fame

77. The chief minister asked her officers to ———the process of procuring food.

A. speed up

B. expedite

C. haste

D. do fast

78. Find the word that means the same as 'strict or exact in the observation'

A. punctiliousness

B. familiarity

C. formality

D. seldom

79. Find the correct spelt word

A. affedevit

B. afidevit

C. affidevit

D. affidavit

80. They decided ————— the grey sofa.

A. about

B. on

C. in

D. of

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