OSSC
CHSL

Previous Year Paper
(Mains Exam)
20 Jul, 2025

1. Which of the following crop is known as Golden Bean?
   a) Chick pea
   b) French bean
   c) Soyabean
   d) Rice bean

2. Gypsum is applied 20-25 days after sowing in Ground nut crop under sandy soil and irrigated condition at the rate of:
   a) 250 kg /ha
   b) 100 kg/ha
   c) 500 kg/ha
   d) None of the above

3. Which of the following mustard varieties is suitable for rainfed, irrigated and late sown condition in Odisha?
   a) NRCHB 101
   b) Pusa Bold
   c) Pusa Jaikisan (BIO 902)
   d) Pusa Bahar

4. Quality Protein Maize (QPM) has high content of :
   a) Leucine and Tryptophan
   b) Lysine and Tryptophan
   c) Isoleucine and Tryptophan
   d) None of the above

5. Seed colour of which variety of sesamum is black?
   a) Subhra
   b) Kanaka
   c) Prachi
   d) Amrit

6. Which of the following pulse crop is very inefficient in biological nitrogen fixation owing to poor nodulation and require higher doses of N?
   a) Black gram
   b) Rajma
   c) Pigeon pea
   d) Green gram

7. Which state in India accounts for maximum area and production in finger millet?
   a) Tamil Nadu
   b) Odisha
   c) Karnataka
   d) Maharashtra

8. Which of the cotton species is grouped under New World Cotton or American Cotton and has less than 1% area under cultivation in India?
   a) Gossypium hirsutum
   b) Gossypium barbadense
   c) Gossypium arboreum
   d) Gossypium herbaceum

9. CRIJAF is associated research of which field crop?
   a) Jute
   b) Maize
   c) Wheat
   d) Oilseed

10. Sustainable Sugarcane Initiative (SSI) approach aims at:
   a) Reducing cost of cultivation by lowering the input investment
   b) Reducing drudgery during sugarcane planting
   c) Enhancing cane yield
   d) All of the above

11. The United Nations General Assembly declared which year as the International Year of Millet at its 75th session in March 2021?
   a) 2021
   b) 2023
   c) 2022
   d) None of the above

12. Deficiency of which nutrient causes Blossom end rot in tomato?
   a) Calcium
   b) Zinc

c) Phosphorous
d) Boron

13. Yellow Vein Mosaic Virus (YVMV) is transmitted through:
a) Thrips
b) Whitefly
c) Aphids
d) Leaf hopper

14. Which of the following varieties of marigold is not grouped under French Marigold?
a) Red Pygmy
b) Giant Double African Yellow
c) Happy Orange
d) Little devil

15. Which of the following statement is TRUE about pulses?
a) All pulses are capable of fixing atmospheric nitrogen.
b) All grain legumes are pulses.
c) Pulses are rich source of protein than cereals.
d) None of the above

16. Which of the following statement is FALSE about fodder crops?
a) Berseem is a leguminous fodder crop adapted to cool climate
b) Lucerne is a profitable winter legume grown for fodder purpose.
c) Green gram can be used as both fodder and green manure.
d) Para grass is a leguminous cultivated perennial forage crop.

17. Which of the following is not grouped under non-leguminous fodder crops?
a) Maize
b) Cowpea
c) Pearl millet
d) Oat

18. Which method of planting is adopted in SRI method?
a) Rectangular method
b) Square method
c) Random method
d) None of the above

19. Benefit of trench method of planting in sugarcane:
a) Better drainage
b) Effective weed control
c) Reduction in early shoot borer infestation
d) All of the above

20. Commercial method of propagation of rose is:
a) Cutting
b) Grafting
c) Seed
d) Budding

21. Which type of tomato is good for growing in poly house condition?
a) Determinate
b) Indeterminate
c) Both determinate and Indeterminate
d) None of the above

22. Which of the following statement is FALSE about rice varieties?
a) Mandakini and Jaldi Dhan are suitable for low land condition.
b) Hiranmayee and Naveen are best for medium land condition.
c) Ajay and Rajalaxmi are hybrid rice varieties from NRRI, Cuttack.
d) Jalamagna variety of rice is most suitable for deep water situation.

23. Which of the following is useful for green manuring purpose in medium paddy?
a) Azotobacter
b) PSB
c) Sesbania (Dhaincha)
d) Azospirillum

24. Rapid and mass multiplication method of guava is done by:
    a) Seed
    b) Cutting
    c) Wedge grafting
    d) Inarching

25. What is "Arka Saka Nivaraka" in Mango?
    a) New variety of Mango
    b) Mango-based value-added product
    c) Liquid formulation to prevent spongy tissue
    d) None of the above

26. Light year is the unit of:
    a) Time
    b) Energy
    c) Distance
    d) Momentum

27. Two forces 80N and 30N act on a body simultaneously. The maximum possible value of the resultant is:
    a) 100 N
    b) 110 N
    c) 120 N
    d) 50 N

28. The acceleration due to gravity has maximum value at the :
    a) Equator of the earth
    b) Pole of the earth
    c) Centre of the earth
    d) At a point in between the equator and pole of the earth

29. Two forces 4 dyne and 3 dyne act at a point making an angle 90° with each other. The resultant force is:
    a) 7 dyne
    b) 14 dyne
    c) 5 dyne
    d) None of the above

30. A body starting from rest has an acceleration of 25 m/s^2. Its velocity after 5 minutes is:
    a) 7500m/s
    b) 750 m/s
    c) 75 m/s
    d) 125 m/s

31. When a body completes one round around a circle in time 2 seconds, its angular velocity becomes:
    a) 2π radian/sec
    b) 4π radian/sec
    c) π radian/sec
    d) $\frac{\pi}{2}$ radian/sec

32. If a force of 20N acts on a body that moves a distance of 2.5m along the direction of the force, then the work done is :
    a) 50 Joule
    b) 500 Joule
    c) 25 Joule
    d) 20 Joule

33. Mixture(s) showing positive deviation from Raoult's law at 35 °C is (are):
    a) Carbon tetrachloride + methanol
    b) Carbon disulphide + acetone
    c) Benzene + toluene
    d) Phenol+ aniline

34. The metal that cannot be obtained by electrolysis of an aqueous solution of its salt is:
    a) Cu
    b) Cr
    c) Ag
    d) Ca

35. For the elementary M→N, the rate of disappearance of M increases by a factor of 8 upon doubling the concentration of M. The order of the reaction with respect to M is:
    a) 4
    b) 3
    c) 2
    d) 1

36. Which among the following is the most reactive?
a) Cl_2
b) Br_2
c) I_2
d) ICl

37. The most suitable reagents for the conversion of $R\text{-}CH_2\text{-}OH \rightarrow R\text{-}CHO$ is:
a) CrO_3
b) PCC
c) $KMnO_4$
d) $K_2Cr_2O_7$

38. In the presence of a small amount of phosphorous, aliphatic carboxylic acids react with chlorine or bromine to yield a compound in which α-hydrogen has been replaced by halogen. This reaction is known as:
a) Wolff-Kishner reaction
b) Etard Reaction
c) Hell-Volhard-Zelinsky reaction
d) Rosenmund reaction

39. On heating an aliphatic primary amine with chloroform and ethanolic potassium hydroxide, the organic compound formed is :
a) An alkyl cyanide
b) An alkyl isocyanide
c) An alkanol
d) An alkanediol

40. Ribbon-shaped chloroplasts are seen with:
a) Ulothrix
b) Spirogyra
c) Chlorella
d) Chlamydomonas

41. The largest part of the brain is:
a) Olfactory lobe
b) Cerebrum
c) Cerebellum
d) Medulla Oblongata

42. Biologist Carolus Linnaeus is associated with:
a) Binomial system of Nomenclature
b) Phylogenetic system of Classification
c) Artificial system of Classification
d) Natural system of Classification

43. Gir Forest is linked to:
a) Asiatic Lions
b) White Tigers
c) Jaguar
d) Lion-tailed Macaque

44. Penicillium belongs to the group:
a) Algae
b) Bryophyta
c) Fungi
d) Gymnosperm

45. Mendel's dihybrid ratio 9:3:3:1 represents:
a) Genotypic ratio
b) Phenotypic ratio
c) Biological ratio
d) Genomic ratio

46. Leukocytes are known as:
a) RBC
b) WBC
c) CBC
d) NBC

47. Discharge of bile pigment in urine indicates:
a) Diabetes
b) Anemia
c) Jaundice
d) Rickets

48. The hormone that is involved in photoperiodism is:
a) Auxin
b) Cytokinin
c) Gibberelin
d) Ethylene

49. To determine the genotype of F1 generation, the suitable cross used is called:
a) Single cross
b) Test Cross
c) Double cross
d) Triple cross

50. The best way to control the spread of stem rust of wheat is the:

a) Use of resistant variety
b) Eradication of alternate host
c) Use of fungicides
d) Use of healthy plants

51. If a family of 7 persons can live on Rs 840 for 36 days, how long can a family of 9 persons live on Rs 810?
a) 16
b) 20
c) 22
d) 27

52. A, B and C invested capitals in the ratio 2:3:4. At the end of the business term, they received the profits in the ratio 3:6:10. The ratio of the periods for which they contributed their capitals is:
a) 1:2:3
b) 3:4:5
c) 5:6:7
d) 1:3:5

53. Find the number which, when added to the terms of the ratio 11:23 makes it equal to the ratio 4:7.
a) 3
b) 5
c) 8
d) 11

54. In an examination, a candidate must get 80% marks to pass. If a candidate who gets 210 marks, fails by 50 marks, find the maximum marks.
a) 300
b) 325
c) 350
d) 400

55. The average age of a family of 6 members is 22 years. If the age of the youngest member be 7 years, what was the average age of the family at the birth of the youngest member?
a) 12
b) 14
c) 16
d) 18

56. The ratio of the father's age to the son's age is 4:1. The product of their ages is 196. What will be the ratio of their ages after 5 years?
a) 10:3
b) 11:6
c) 11:4
d) 12:5

57. An article is sold at 20% profit. If its cost price is increased by Rs 50 and at the same time if its selling price is also increased by Rs 30, the percentage of profit decreases by $3\frac{1}{3}$%. Find the cost price.
a) Rs 650
b) Rs 720
c) Rs 850
d) Rs 930

58. If the difference between compound interest and simple interest on a certain sum of money for 3 years at 5% per annum is Rs 122, find the sum.
a) Rs 12,000
b) Rs 13,500
c) Rs 16,000
d) Rs 16,600

59. Two pipes A and B can fill a tank in 24 minutes and 32 minutes respectively. If both the pipes are opened simultaneously, after how much time should B be closed so that the tank is completely filled in 18 minutes?
a) 4 minutes
b) 6 minutes
c) 8 minutes
d) 12 minutes

60. A man covers a certain distance on scooter. Had he moved 3kmph faster, he would have taken 40 minutes less. If he had moved 2 kmph slower, he would have taken 40 minutes more. Find the distance (in km).
a) 25 km
b) 30 km
c) 32 km

d) 40 km

61. An insurance company insured 2000 scooter drivers, 4000 car drivers and 6000 truck drivers. The probability of accident is 0.01, 0.03 and 0.15 respectively. One of the insured persons meets an accident. What is the probability that he is a scooter driver?
a) 1/36
b) 1/42
c) 1/52
d) 1/58

62. The value of $\tan 10^0 . \tan 15^0 . \tan 75^0 . \tan 80^0$ is:
a) 1/2
b) 1/3
c) 1
d) 1/5

63. A trapezium has an area of 5100 sq cm and the perpendicular distance between the two parallel sides 60m. If one of the parallel sides is 40m, the length of the other parallel side is:
a) 110m
b) 120m
c) 130m
d) 140m

64. A path all around the inside of a rectangular park 37m by 30m occupies 570 sq. m. The width of the path is:
a) 3 m
b) 4 m
c) 6 m
d) 5 m

65. If the length of a rectangle is decreased by 20%, by what percent should the width be increased to maintain the same area?
a) 10%
b) 25%
c) 32%
d) 20%

66. The area of the largest circle that can be drawn in a square of side 14 cm is:
a) 132 cm^2
b) 144 cm^2
c) 154 cm^2
d) 162 cm^2

67. A cube of sides 3 cm is melted and smaller cubes of sides 1 cm each are formed. How many such cubes are possible?
a) 18
b) 21
c) 27
d) 32

68. The number of lead balls of diameter 1 cm each that can be made from a sphere of diameter 16 cm is:
a) 3890
b) 4096
c) 4112
d) 4052

69. If the radius of a cylinder is doubled and the height is halved, the ratio between the new volume and the previous volume is:
a) 1:2
b) 3:1
c) 2:1
d) 4:3

70. A person has 12 friends out of which 7 are relatives. In how many ways can he invite 6 friends such that at least 4 of them are relatives?
a) 386
b) 412
c) 452
d) 462

71. A certain number when divided by 36 leaves a remainder 21. What is the remainder when the same number be divided by 12?
a) 7
b) 5
c) 9
d) 6

72. It is given that $2^{32} + 1$ is exactly divisible by a certain number. Which one of the following is also divisible by the same number?
a) $2^{96} + 1$
b) $2^{16} - 1$
c) $2^{16} + 1$
d) 7×2^{33}

73. If $\sin B = \frac{1}{2}$, then the value of $3\cos B - 4\cos^3 B$ is:
a) 0
b) 1
c) 1/2
d) 1/3

74. If 0 is an acute angle and $\sin 0 = \cos 0$, the value of $2\tan^2 + \sin^2 0 - 1$ is:
a) 1/2
b) 3/2
c) 1/4
d) 3/4

75. If $\tan^{-1}2 + \tan^{-1}3 + 0 = \pi$, the value of 0 is:
a) $\pi/2$
b) $\pi/4$
c) $3\pi/2$
d) $3\pi/4$

76. An observer 1.5 m tall is 28.5 m away from a tower. The angle of elevation of the top of the tower from her eyes is 45^0. The height of the tower is:
a) 20m
b) 24m
c) 30m
d) 40m

77. The solution of the equation $1+3^{x/2} = 2^x$ is:
a) 3
b) 4
c) 1
d) 2

78. If the equation $x^2+cx+ab = 0$ and $x^2+bx+ca = 0$ have a common root, then $a+b+c$ is equal to:
a) 0
b) 1
c) -1
d) 2

79. The roots of the equation $2\log 2x = \log(7x-2-2x^2)$ are:
a) $\frac{1}{2}, \frac{1}{3}$
b) $\frac{1}{2}, \frac{2}{3}$
c) $\frac{2}{3}, \frac{1}{4}$
d) $\frac{1}{2}, \frac{1}{2}$

80. Find the greatest value of xyz for positive values of x,y,z subject to the condition $yz+zx+xy=12$.
a) 6
b) 12
c) 8
d) 4

81. The perimeters of two similar triangles are 25 cm and 15 cm respectively. If one side of the first triangle is 9 cm, find the length of the corresponding side of the second triangle.
a) 5.2 cm
b) 4.8 cm
c) 6.2 cm
d) 5.4 cm

82. If 0 is an acute angle of a right angled triangle, which of the following equation is not true?
a) $\sin 0 \cdot \cot 0 = \cos 0$
b) $\cos 0 \cdot \tan 0 = \sin 0$
c) $\operatorname{cosec}^2 0 - \cot^2 0 = 1$
d) $\tan^2 0 - \sec^2 0 = 1$

83. The area of the circle that can be inscribed in a square of side 6 cm is:
a) 36π cm^2
b) 18π cm^2
c) 12π cm^2
d) 9π cm^2

84. The ratio in which the line segment joining the points A (6,3) and B(-2,-5) is divided by x-axis is:
a) 2:5
b) 1:5
c) 3:5
d) 4:5

85. The median of the first ten prime numbers is:
a) 8
b) 10
c) 12

86. If for two numbers, the arithmetic mean is 25 and harmonic mean is 9, the geometric mean of the series is:
a) 10
b) 12
c) 15
d) 18

87. A question paper consists of two sections having 3 and 5 questions respectively. The following note is given on the paper "It is not necessary to attempt all the questions. One question from each section is compulsory. In how many ways can a candidate select the questions?
a) 211
b) 217
c) 172
d) 242

88. The coefficient of $a^3b^4c^3$ in the expansion of $(bc+ca+ab)^6$ is:
a) 50
b) 60
c) 72
d) 52

89. A vertical pole of length 6m casts a shadow 4m long on the ground and at the same time a tower casts a shadow 28m long. The height of the tower is:
a) 36m
b) 38m
c) 42m
d) 44m

90. If $a^2+b^2+c^2=x^2+y^2+z^2=1$, the value of $ax+by+cz$ is less than:
a) 1
b) 2
c) 3
d) 4

91. The mean age of 50 persons was found to be 32 years. Later it was detected that the age 57 was misread as 27, age 60 was misread as 35 and age 28 was misread as 33. The correct mean age is:
a) 28
b) 33
c) 36
d) 42

92. For a series, the mean deviation is 15. The most likely value of quartile deviation is :
a) 10
b) 12
c) 12.5
d) 13.5

93. The first three moments of a distribution about the value 2 of the variables are 1,16 and -40 . The variance of the distribution is:
a) 10
b) 12
c) 15
d) 18

94. A can solve 75 percent of the problems in Mathematics and B can solve 70%. The chance that either A or B chosen at random can solve a problem is:
a) 1/4
b) 3/4
c) 5/6
d) 6/7

95. Four coins are tossed. The expectation of the number of heads is:
a) 2
b) 4
c) 8
d) 12

96. If x is a poission variate such that $p(x=2)=9p(x=4)+90\,p\,(x=6)$, then the coefficient of skewness is:
a) 1
b) 2
c) 5
d) 8

97. If there is a certain number of very high values in the sample, it is preferable to compute:

a) Standard error
b) Standard deviation
c) Variance
d) Bias

98. Population census data is an example of:
a) Cross-sectional data
b) Time series data
c) Pooled data
d) Panel data

99. If a random sample of 10 numbers is drawn without replacement from the set {1,2,3,—,100}, then variance of the sample mean is:
a) 303/4
b) 3333/4
c) 385
d) 396

100. If each and every unit of a population has equal chance of being included in the sample, it is known as:
a) Restricted sampling
b) Purposive sampling
c) Subjective sampling
d) Unrestricted sampling