OSSC Junior Assistant Mains

Previous Year Paper
2019 Paper-III
(Mathematics and Computer)

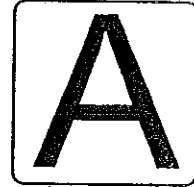**DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE ASKED TO DO SO**

T. B. C. : JA – 3

Test Booklet Series

Serial No. 3193

A

TEST BOOKLET

JUNIOR ASSISTANT

PAPER – III (MATHEMATICS AND BASIC COMPUTER SKILLS)

Time Allowed : 3 Hours

Maximum Marks : 200
(Mathematics – 100 & Basic
Computer Skills – 100)

: INSTRUCTIONS TO CANDIDATES :

1. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS TEST BOOKLET **DOES NOT** HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET OF THE SAME SERIES ISSUED TO YOU.

2. ENCODE CLEARLY THE TEST BOOKLET SERIES **A, B, C** OR **D**, AS THE CASE MAY BE, IN THE APPROPRIATE PLACE IN THE ANSWER SHEET USING BALL POINT PEN (BLUE OR BLACK).

3. You have to enter your **Roll No.** on the Test Booklet in the Box provided alongside. **DO NOT** write anything else on the Test Booklet.

4. This Test Booklet contains **100** items (questions). i. e. Q. No. 1 to 50 Mathematics & **Q. No. 51 to 100 Basic Computer Skills.** Each item (question) comprises four responses (answers). You have to select the correct response (answer) which you want to mark (darken) on the Answer Sheet. In case, you feel that there is more than one correct response (answer), you should mark (darken) the response (answer) which you consider the best. In any case, choose **ONLY ONE** response (answer) for each item (question).

5. You have to mark (darken) all your responses (answers) **ONLY** on the **separate Answer Sheet** provided, by **using BALL POINT PEN (BLUE OR BLACK)**. See instructions in the Answer Sheet. **You should use the same Answer Sheet for both parts, i. e. Mathematics (Q. Nos. 1 to 50) & Basic Computer Skills (Q. Nos. 51 to 100).**

6. All items (questions) carry equal marks. All items (questions) are compulsory. Your total marks will depend only on the number of correct responses (answers) marked by you in the Answer Sheet. **There will be negative markings for wrong answers.** 25 percent of marks allotted to a particular item (question) will be deducted as negative marking for every wrong response (answer).

7. Before you proceed to mark (darken) in the Answer Sheet the responses to various items (questions) in the Test Booklet, you have to fill in some particulars in the Answer Sheet as per the instructions sent to you with your **Admission Certificate**.

8. After you have completed filling in all your responses (answers) on the Answer Sheet and after conclusion of the examination, you should hand over to the Invigilator the Answer Sheet issued to you. You are allowed to take with you the candidate's copy/second page of the Answer Sheet along with the Test Booklet after completion of the examination for your reference.

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MATHEMATICS

1. The cube root of 0.000216 is :

   (A) ·6

   (B) ·06

   (C) ·7

   (D) ·87

2. ·0169 × ? = (1. 3)^2 :

   (A) 100

   (B) 10

   (C) 1000

   (D) None of these

3. If $\sqrt{1+\dfrac{x}{144}} = \dfrac{15}{13}$ then value of x is :

   (A) 47

   (B) 48.2

   (C) 47.72

   (D) 46.22

4. If $x = \dfrac{\sqrt{3}+1}{\sqrt{3}-1}$ and $y = \dfrac{\sqrt{3}-1}{\sqrt{3}+1}$ then the value of $x^2 - y^2$ is :

   (A) $10\sqrt{3}$

   (B) $8\sqrt{3}$

   (C) 14

   (D) 12

5. A fruit seller had some apples. He sells 40% apples and still had 420 apples. So originally he had :

   (A) 588 apples

   (B) 600 apples

   (C) 672 apples

   (D) 700 apples

6. Rajeev buys goods worth ₹ 6650 and he gets a rebate of 6% on it. After getting rebate he pays sales tax @ 10%. Find the amount he will have to pay for goods :

   (A) ₹ 6878.10

   (B) ₹ 6999.20

   (C) ₹ 6654

   (D) ₹ 7000

7. If A earns 25% more than B, what percent less does B earn than A ?

   (A) 10%

   (B) 20%

   (C) 25%

   (D) 30%

8. The population of a town increased from 1,75,000 to 2,62,000 in a decade. The average percent increases of population per year is :

   (A) 6%

   (B) 5%

   (C) 4.37%

   (D) 8.75%

9. In the first 10 overs of a cricket game the run rate was 3.2. What should be the run rate in the remaining 40 overs to reach the target of 280 runs ?

(A) 6.2

(B) 6.25

(C) 7

(D) 7.25

10. The average weight of 16 boys in a class is 50.25 kg and that of the remaining 8 boys is 45.15 Kg. Find the average weight of all the boys in the class :

(A) 48.55

(B) 47.25

(C) 48

(D) 49.55

11. The average of 100 numbers is 44. The average of these 100 numbers and 4 other new numbers is 50. What is the average of the 4 new numbers ?

(A) 800

(B) 176

(C) 200

(D) 24

12. The average of two numbers A and B is 20, that of B and C is 19 and of C and A is 21. Find the value of A :

(A) 20

(B) 22

(C) 24

(D) 18

13. A person borrows ₹ 500 for $1\frac{1}{2}$ years at 2 paise simple interest per month. Find the interest he has to pay :

(A) ₹ 210

(B) ₹ 180

(C) ₹ 232

(D) ₹ 184.50

14. If a sum of money at simple interest doubles in 12 years find the rate of interest per annum :

(A) $8\frac{1}{3}\%$

(B) $16\frac{2}{3}\%$

(C) 7.5%

(D) 10%

15. Find the compound interest for 3 years when the principal is ₹ 800 and rate of interest is 5% :

   (A) ₹ 962.20

   (B) ₹ 926.10

   (C) ₹ 900

   (D) ₹ 856.50

16. A car costs ₹ 16,000. When it is used by the owner its price decreases at the rate of 5% per year. What will be its price after 3 years ?

   (A) ₹ 1400

   (B) ₹ 13718

   (C) ₹ 15615

   (D) ₹ 15000

17. Find the Tax payable when Taxable income is ₹ 6900 and savings under Section 88 is ₹ 6500. [From 6,000 to 1,50,000, Tax is 1,000 + 20%] & 2% surcharge of I. Tax shall be levied.

   (A) ₹ 1,530

   (B) ₹ 1,500

   (C) ₹ 1,260

   (D) ₹ 1,560

18. Manas bought a watch costing ₹ 1,650. If the amount includes 10% Sale Tax on the list price, find the list price of the watch :

   (A) ₹ 1,550

   (B) ₹ 1,650

   (C) ₹ 1,600

   (D) ₹ 1,500

19. A company with 10,000 shares of nominal value ₹ 100 declares an annual dividend of 8% to the share holders. Find the amount of dividend paid by the company :

   (A) ₹ 80,000

   (B) ₹ 88,800

   (C) ₹ 88,000

   (D) ₹ 80,800

20. How much should a man invest in ₹ 10 shares selling in ₹ 13 each to obtain an income of ₹ 150 if the dividend declared by the company is 15% ?

   (A) ₹ 1,000

   (B) ₹ 1,300

   (C) ₹ 1,500

   (D) ₹ 1,530

21. A sells an article to B at a profit of 10%. B sells the article back to A at a loss of 10%. In this transaction the profit of A is :

(A) 11%

(B) 20%

(C) 15%

(D) 12%

22. If a man was to sell his chair for ₹ 720, he would lose 25%. To gain 25% he should sell it for :

(A) ₹ 1,000

(B) ₹ 1,200

(C) ₹ 1,960

(D) ₹ 1,900

23. The listed price of a shirt is ₹ 270 and it is available at ₹ 237.60. Find the rate of discount :

(A) 10%

(B) 12%

(C) 14%

(D) 16%

24. Find the discount equivalent to successive discounts of 20% and 10% :

(A) 25%

(B) 27%

(C) 28%

(D) 17%

25. Find the mean of the following data :

10, 15, 12, 16, 15, 10, 14, 15, 12, 10

(A) 15

(B) 12.9

(C) 11.8

(D) 13

26. Find the median of the first five odd integers :

(A) 5

(B) 3

(C) 4

(D) 6

27. The mean of five data is 10. If a new variate is included then the mean becomes 11. Find the sixth data :

(A) 16

(B) 11

(C) 18

(D) 14

28. Find the median of the following :

7, 7, 10, 6, 7, 9, 8, 7, 6, 7, 8, 9, 6, 6, 7, 6, 7, 7, 8

(A) 6

(B) 7

(C) 8

(D) 9

29. A can do a work in 15 days and B in 20 days. If they work on it together for 4 days then the fraction of the work that is left is :

(A) $\frac{1}{4}$

(B) $\frac{7}{15}$

(C) $\frac{8}{15}$

(D) $\frac{1}{10}$

30. 4 men and 6 women can complete a work in 8 days while 3 men and 7 women can complete the same in 10 days. In how many days will 10 women complete the work ?

(A) 35

(B) 40

(C) 45

(D) 50

31. P works twice as fast as Q. If Q alone can complete the work in 12 days, the number of days in which both P and Q can together finish is :

(A) 4

(B) 6

(C) 8

(D) 18

32. Reena can do a piece of work in 20 days and Meena is 25% more efficient than Reena. The number of days taken by Meena to do the same piece of work is :

(A) 15

(B) 16

(C) 25

(D) 18

33. A man on tour travels first 160 km at 64 kmph and the next 160 km. at 80 kmph. The average speed of the 1st 320 km of the tour is :

(A) 35.55 kmph

(B) 71.11 kmph

(C) 71 kmph

(D) 36 kmph

34. A car travelling with $\frac{5}{7}$ of its actual speed covers 42 km in 1 hour 40 min 48 sec. Find the actual speed of the car :

   (A) 35 kmph

   (B) 45 kmph

   (C) 53 kmph

   (D) 55 kmph

35. Buses start from a Bus Terminal with a speed of 20 kmph at 10 mins. interval. What is the speed of a man coming from opposite direction towards the Bus Terminal if he meets the Buses at an interval of 8 minutes ?

   (A) 3 kmph

   (B) 4 kmph

   (C) 5 kmph

   (D) 6 kmph

36. Two men start together from the same place in the same direction to go round a circular path. If one takes 10 mins and the other takes 15 mins to make one complete round, they will meet after :

   (A) 40 mins

   (B) 30 mins

   (C) 45 mins

   (D) 33 mins

37. If the work done by (x − 1) men in (x + 1) days are in the ratio 5 : 6 to the work done by (x + 1) man in (x + 2) days then find x :

   (A) 15

   (B) 16

   (C) 14

   (D) 17 .

38. The monthly salaries of two persons are in the ratio 3 : 5. If each receives an increase of ₹ 20 in salary, the ratio changes to 13 : 21. Find their salaries :

   (A) ₹ 240 & ₹ 400

   (B) ₹ 200 & ₹ 440

   (C) ₹ 240 & ₹ 320

   (D) None of these

39. What should be added to each term of the ratio 7 : 13 so that the ratio becomes 2 : 3 ?

   (A) 15

   (B) 5

   (C) 3

   (D) 8

40. Find the number which bears the same ratio to $\dfrac{8}{55}$ that $\dfrac{7}{9}$ does to $\dfrac{2}{33}$:

(A) $\dfrac{28}{15}$

(B) $\dfrac{18}{25}$

(C) $\dfrac{13}{27}$

(D) $\dfrac{25}{28}$

41. In what ratio must water be mixed with milk to gain 20% by selling the mixture at cost price ?

(A) 1 : 5

(B) 5 : 6

(C) 2 : 3

(D) 1 : 6

42. In what ratio must rice at ₹ 9.30 per kg be mixed with rice at ₹ 10.80 per kg so that the mixture be worth ₹ 10 per kg ?

(A) 5 : 7

(B) 8 : 7

(C) 3 : 7

(D) 2 : 5

43. In what ratio must a grocer mix two varieties of tea worth ₹ 60 per kg and ₹ 65 per kg so that selling of mixture at ₹ 68.20 per kg he may gain 10% ?

(A) 3 : 2

(B) 3 : 4

(C) 3 : 5

(D) 4 : 5

44. A dishonest milkman professes to sell his milk at cost price but he mixes it with water and thereby gains 25%. The percentage of water in the mixture is :

(A) 4%

(B) $6\frac{1}{4}\%$

(C) 20%

(D) 25%

45. A, B and C started a business by investing ₹ 1,20,000, ₹ 1,35,000 and ₹ 1,50,000 respectively. Find the share of A out of an annual profit of ₹ 56,700 :

(A) ₹ 18,000

(B) ₹ 16,800

(C) ₹ 18,900

(D) ₹ 17,600

46. Kamal started a business by investing ₹ 50,000. After 6 months Nanda joined him with a capital of ₹ 80,000. After 3 years they earned a profit of ₹ 24,500. Find Kamal's share in the profit :

   (A) ₹ 9,423

   (B) ₹ 10,500

   (C) ₹ 12,500

   (D) ₹ 14,000

47. A, B, C hired a car for ₹ 520 and used it for 7, 8 and 9 hours respectively. Hire charges paid by B were :

   (A) ₹ 140

   (B) ₹ 160

   (C) ₹ 180

   (D) ₹ 220

48. Deepak , Anand and Simran entered in partnership. Deepak invests 3 times what Anand invests and Anand invests $\frac{2}{3}$rd of what Simran invests. At the end of the year the profit earned is ₹ 6,600. Find the share of Anand :

   (A) ₹ 1,600

   (B) ₹ 1,200

   (C) ₹ 1,400

   (D) ₹ 1,000

49. An aeroplane flies along the four sides of a square field at the speed of 200, 400, 600 and 800 kmph. Find the average speed of the plane round the field :

   (A) 278 kmph

   (B) 365 kmph

   (C) 384 kmph

   (D) 247 kmph

50. A boat goes 7 km upstream in 42 mins. and the speed of the stream is 3 kmph. Find the speed of the boat in still water :

   (A) 4.2 kmph

   (B) 9 kmph

   (C) 13 kmph

   (D) 21 kmph

BASIC COMPUTER SKILLS

51. An icon represents :
    (A) A Program
    (B) A file
    (C) Both (A) and (B)
    (D) None of the above

52. To close a window press :
    (A) Ctrl + W
    (B) Ctrl + F4
    (C) Alt + C
    (D) Alt + F4

53. A _____ is a window component that is designed to store other components so that these can be organized efficiently.
    (A) Document
    (B) Window
    (C) Folder
    (D) All of the above

54. _____ are the list of commands that appear on screen.
    (A) Windows
    (B) GUIS
    (C) Icons
    (D) Menus

55. To change the way items are displayed in windows, we should use :
    (A) View menu
    (B) Control menu

    (C) Mouse
    (D) All of the above

56. How many columns of items does a classic start menu contain ?
    (A) 1
    (B) 2
    (C) 3
    (D) Can't be determined

57. _____ is used to display the system menu for the active window.
    (A) Shift + F10
    (B) Ctrl + tab
    (C) Alt + esc
    (D) Alt + spacebar

58. What is the shortcut key to open my computer ?
    (A) Windows + E
    (B) Windows + F
    (C) Windows + F1
    (D) Windows + A

59. The screen saver automatically starts when the computer is idle for the number of minutes specified in _____ .
    (A) Time
    (B) Wait
    (C) Display
    (D) None of these

60. The bottom bar of the windows is known as :

(A) Task bar

(B) Menu bar

(C) Click bar

(D) Title bar

61. You can't close MS Word by :

(A) Choosing file menu then exit submenu

(B) Press Alt + F4

(C) Click X button on title bar

(D) From file menu choose close submenu

62. What is the shortcut key to open the OPEN dialogue box in MS Word ?

(A) F12

(B) Alt + F12

(C) Ctrl + F12

(D) Shift + F12

63. Which files starts MS Word ?

(A) Winword.exe

(B) Word.exe

(C) Msword.exe

(D) Word2003.exe

64. Background color or effects applied on a document in MS Word is not visible in :

(A) Web layout view

(B) Print layout view

(C) Reading view

(D) Print preview

65. Pressing F8 key 5 times in MS Word selects :

(A) A word

(B) A sentence

(C) A paragraph

(D) Entire document

66. What is the shortcut key you can press to create a copyright symbol in MS Word ?

(A) Alt + Ctrl + C

(B) Alt + C

(C) Ctrl + C

(D) Ctrl + Shift + C

67. Which of the following function key activates the speller in MS Word ?

(A) F5

(B) F7

(C) F9

(D) Shift + F7

68. What is the maximum number of columns that can be made in a MS Word document ?

(A) 6

(B) 10

(C) 12

(D) 16

69. In MS Word, portrait and landscape features are :

(A) Page orientation

(B) Paper size

(C) Page display

(D) All of the above

70. The Ctrl + H command in MS Word is used to :

(A) Hide data

(B) Find and replace

(C) Save

(D) Copy

71. Which is the shortcut key to insert a new slide in current presentation ?

(A) Ctrl + N

(B) Ctrl + M

(C) Ctrl + S

(D) All of the above

72. From which menu you can access picture, text box and chart in PowerPoint :

(A) File

(B) Edit

(C) Insert

(D) View

73. Which of the following font effects are not available in PowerPoint font dialogue box ?

(A) Underline

(B) Shadow

(C) Emboss

(D) Strikethrough

74. The effect applied to display when slides change in slide show view is :

(A) Slide animation

(B) Custom animation

(C) Custom transition

(D) Slide transition

75. To start slide show of a presentation :

(A) Hit F5 key

(B) From slide show menu choose view show option

(C) From slide show menu choose rehearse timing

(D) Both (A) and (B)

76. Which tab is not available on left panel when you open a presentation ?

(A) Outline

(B) Slides

(C) Notes

(D) Both (A) and (B)

77. In order to edit a chart, you can :

(A) Triple click the chart object

(B) Click and drag the chart object

(C) Double click the chart object

(D) Click the chart object

78. To exit PowerPoint :

   (A) Click the application minimize button

   (B) Click the document close button

   (C) Double click the application control menu icon

   (D) Double click the document control menu icon

79. How can you create a uniform appearance by adding a background image to all slides ?

   (A) Create a template

   (B) Edit the slide master

   (C) Use the autocorrect wizard

   (D) All of the above

80. In Microsoft PowerPoint in order to see all the slides on one screen use :

   (A) View, slide sorter

   (B) View, slide

   (C) View, master

   (D) View, slide show

81. Which of the following keyboard shoutcut can be used for creating a chart from the selected cells ?

   (A) F11

(B) F10

(C) F4

(D) F2

82. Which of the following is not associated with spelling dialogue box in MS Excel ?

   (A) Edit

   (B) Ignore

   (C) Ignore all

   (D) Change

83. What term describes a background that appears as a gradual change of colors in a chart in MS Excel ?

   (A) Pattern

   (B) Gradient

   (C) Texture

   (D) Velvet

84. When you copy a formula :

   (A) Excel erases the original copy of the formula

   (B) Excel edits cell references in the newly copied formula

   (C) Excel adjusts absolute cell references

   (D) Excel doesn't adjust relative cell references

85. What function displays row data in a column or column data in a row ?

   (A) Transpose

   (B) Index

   (C) Rows

   (D) Hyperlinks

86. Except which of the following functions, a formulae with a logical function shows the word TRUE and FALSE as a result :

   (A) NOT

   (B) OR

   (C) IF

   (D) AND

87. In MS Excel a typical worksheet by default has _____ number of columns.

   (A) 128

   (B) 256

   (C) 512

   (D) 1024

88. What is the shortcut key to insert a new comment in a cell ?

   (A) F2

   (B) Alt + F2

   (C) Ctrl + F2

   (D) Shift + F2

89. What is the shortcut key to insert new sheet in current workbook ?

   (A) F11

   (B) Alt + F11

   (C) Ctrl + F11

   (D) Shift + F11

90. What will be the result if you type = A1 = B1 in cell C1 ?

   (A) Yes or No

   (B) True or False

   (C) Value of A1

   (D) Value of B1

91. Microsoft access is a :

   (A) RDBMS

   (B) OODBMS

   (C) ORDBMS

   (D) Network database model

92. A database language concerned with the definition of the whole database structure and schema is :

   (A) DDL

   (B) DML

   (C) DCM

   (D) All of the above

93. Which of the following is not a type of Microsoft access database object ?

   (A) Table

   (B) Form

   (C) Worksheet

   (D) Modules

94. What is the maximum length a text field can be ?

   (A) 75

   (B) 64

   (C) 254

   (D) 255

95. Which field type is used to store pictures in a table ?

   (A) Memo

   (B) OLE

   (C) Hyperlink

   (D) None of the above

96. A query prompts a user for a data and then displays only records that contain the specified data. Which type of query is this ?

   (A) A parameter query

   (B) A crosstab query

   (C) An update query

   (D) An action query

97. A query summarizes information in a grid organized by regions and months. Which type of query is this ?

   (A) An update query

   (B) A parameter query

   (C) An action query

   (D) A crosstab query

98. In MS Access press Ctrl + O to :

   (A) Open a new database

   (B) Open an existing database

   (C) Exit MS access

   (D) None of these

99. In Ms Access LOOKUP WIZARD is used to :

   (A) To select from previous values

   (B) To select values from excel sheets

   (C) To select values from another table

   (D) Not a valid data type

100. In MS access auto number data type :

   (A) Can be sequential

   (B) Can be random

   (C) Can be edited

   (D) Only (A) and (B)

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