

Sikkim Public Service Commission

Main Written Examination for the Post of Revenue Inspector

Paper II

Arithmetic

&

General Studies

Time Allowed : 3 hrs.

Maximum Marks : 200

INSTRUCTIONS TO CANDIDATES

Read the following instructions carefully before answering the questions :-

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.**
2. Use only Black Ball Point Pen to fill the OMR sheet.
3. Do not write anything else on the OMR Answer Sheet except the required information.
4. **This Test Booklet contains 100 items in Arithmetic & General Studies of MCQ Mode to be marked in OMR Sheet.**
5. **All items from 1 to 100 carries 2 marks each.**
6. After you have completed filling in all your responses on the Answer Sheet (OMR) and the Examination has concluded, you should hand over the Answer sheet (OMR) to the Invigilator only. You are permitted to take away with you the Test Booklet.
7. **Marking Scheme**
THERE WILL BE NEGATIVE MARKING FOR WRONG ANSWERS MARKED BY A CANDIDATE IN THE OBJECTIVE TYPE QUESTION PAPERS.
 - (i) There are four alternatives for the answer to every question. For each question for which a wrong answer has been given by the candidate, one-third of the marks assigned to that question will be deducted as penalty.
 - (ii) If a candidate gives more than one answer, it will be treated as a wrong answer even if one of the given answers happens to be correct and there will be same penalty as above to the question.
 - (iii) If a question is left blank. i.e., No answer is given by the candidate, there will be no penalty for that question.

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

PAPER - II
ARITHMETIC

$$\left(\text{Take } \pi = \frac{22}{7} \right)$$

MARKS - (2 × 50 = 100)

1. What is the least number to be added to 5607 to make the sum a perfect square?

- A. 16
- B. 18
- C. 14
- D. 25

2. If the C.P. of 15 pencils is equal to the S.P. of 20 pencils, find the loss percent?

- A. 15%
- B. 18%
- C. 20%
- D. 25%

3. If $a+b=4$ and $ab=-12$, then the value of $a-b=?$

- A. 5
- B. 10
- C. 8
- D. 16

4. Evaluate : $\frac{0.04}{0.03}$ of $\frac{\left(3\frac{1}{3} - 2\frac{1}{2}\right) \div \frac{1}{2} \text{ of } 1\frac{1}{4}}{\frac{1}{3} + \frac{1}{5} \text{ of } \frac{1}{9}}$

- A. 5
- B. 3
- C. $\frac{1}{3}$

- D. $\frac{1}{5}$
5. The qualifying marks of an examination is 40%. A candidate who scored 200 marks failed by 8 marks. What was the maximum marks of that examination?
- A. 540
B. 520
C. 500
D. 600
6. The largest four digit number which is a perfect cube is :
- A. 9981
B. 9801
C. 8000
D. 9261
7. If 10% of $(P+Q) = 50\%$ of $(P-Q)$, then what is the value of $P:Q$?
- A. 3 : 2
B. 1 : 5
C. 2 : 3
D. 5 : 3
8. A car crosses a bridge in 4 minutes with a speed of 54 km/hr. Find the length of the bridge?
- A. 4000 m
B. 3400 m
C. 3600 m
D. 2500 m
9. The diagonal of a cube is $2\sqrt{3}$ cm. What is its surface area?
- A. 18 cm^2
B. 24 cm^2
C. 25 cm^2
D. None of these
10. The volumes of a sphere and a right circular cylinder having the same radius are equal. Find the ratio of the diameter of the sphere to the height of the cylinder?
- A. 3 : 4
B. 1 : 3

C. 3 : 2

D. 4 : 3

11. The value of $\frac{\sin 30^\circ \cos 45^\circ}{\tan 60^\circ}$ is :

A. $\frac{\sqrt{3}}{2}$

B. $\frac{\sqrt{6}}{3}$

C. $\frac{2}{\sqrt{3}}$

D. $\frac{\sqrt{6}}{12}$

12. A person spends $\frac{1}{4}$ part of his income on food, $\frac{2}{3}$ part on house rent and remaining Rs.630 on other items. Find his house rent?

A. Rs. 4050

B. Rs. 5000

C. Rs. 5040

D. Rs. 5400

13. Find the value of $\sqrt{900} + \sqrt{0.09} - \sqrt{0.000009} = ?$

A. 30.297

B. 30.097

C. 30.397

D. 30.197

14. Ravi bought 20 dining tables for Rs. 12000 and sold them at a profit equal to the S.P. of 4 dining tables. Find the S.P. of 1 dining table?

A. Rs. 800

B. Rs. 700

C. Rs. 750

D. Rs. 900

15. $\frac{\cos \theta}{1 - \sin \theta} - \frac{\cos \theta}{1 + \sin \theta} = 2$, is satisfied by which one of the following values of θ

A. $\frac{\pi}{3}$

B. $\frac{\pi}{4}$

C. $\frac{\pi}{2}$

D. $\frac{\pi}{6}$

16. A group of students decided to collect as many paise from each member of the group as is the number of members. If the total collection amounts to Rs. 59.29, the number of member in the group is :

A. 87

B. 77

C. 57

D. 97

17. If the ratio of angles of a triangle is 3 : 5 : 1, then the value of the largest angle is :

A. 110°

B. 140°

C. 115°

D. 100°

18. If 1.8 is the third proportion to 1.25 and x, then the value of x is :

A. 1.5

B. 2.25

C. 2.4

D. None of these

19. A train travelling at a speed of 60 km/hr passes through a 850 m long tunnel. Find for how long a passenger travelling by that train remains inside the tunnel.

A. 45 sec

B. 47 sec

C. 17 sec

- D. 51 sec
20. Two numbers are 20% and 50% more than a third number respectively. What is the percentage of second number with respect to the first number?
- A. 90%
B. 100%
C. 80%
D. 125%
21. Three cubes each of side 5 cm are joined end to end. Find the total surface area of the resulting cuboid?
- A. 200 cm^2
B. 250 cm^2
C. 350 cm^2
D. 320 cm^2
22. If $3 \tan \theta = 4$, then $\sqrt{\frac{1-\sin \theta}{1+\sin \theta}}$ is equal to :
- A. $\frac{2}{3}$
B. $\frac{1}{3}$
C. $\frac{1}{2}$
D. None of these
23. A garden roller is 2 m long, and its diameter is 1.4 m. Find the area covered by it in 5 revolutions?
- A. 42.8 m^2
B. 40 m^2
C. 44 m^2
D. 44.5 m^2
24. If $\sqrt{1088} + \sqrt{289} = \sqrt{x}$, then the value of x is :
- A. 2500
B. 50
C. 100

- D. 1600
25. If $\frac{m}{n} = 14$, then the value of $\frac{m+n}{m-n}$ is :
- A. $1\frac{3}{13}$
- B. $2\frac{2}{13}$
- C. $1\frac{5}{13}$
- D. $1\frac{2}{13}$
26. If $3A = 5B = 6C$, then $A:B:C$ is :
- A. 6 : 4 : 3
- B. 10 : 6 : 5
- C. 3 : 5 : 6
- D. 10 : 6 : 3
27. The ratio between the speeds of two cars is 7 : 8. If the second car runs 200 km in 5 hours, find the speed of first car.
- A. 40 km/hr
- B. 35 km/hr
- C. 48 km/hr
- D. 25 km/hr
28. One litre of water is added to five litres of alcohol and water solution containing 40% alcohol strength. The strength of alcohol in the new solution will be :
- A. 28 %
- B. 30 %
- C. $33\frac{1}{3}$ %
- D. $33\frac{2}{3}$ %
29. By selling a watch for Rs. 1440 a man loses 10% . At what price should he sell it to gain 10%.
- A. Rs. 1760
- B. Rs. 1740
- C. Rs. 1640
- D. Rs. 1860

30. The capacity of a cuboidal tank is 50000 litres. Find the breadth of the tank if its length and depth are 2.5 m and 10 m respectively.
- 2.5 m
 - 3 m
 - 2 m
 - None of these
31. If $\sin \theta = \frac{4}{5}$, the value of $\frac{4 \tan \theta - 5 \cos \theta}{\sec \theta + 4 \cot \theta}$ is :
- $\frac{1}{\sqrt{3}}$
 - $\frac{1}{2}$
 - $\frac{1}{\sqrt{2}}$
 - $\sqrt{3}$
32. The highest score in a cricket test match in an innings was $\frac{3}{11}$ of the total and the next highest was $\frac{3}{10}$ of the remaining. If the difference between the two scores was 24 runs, what was the total score?
- 440 runs
 - 420 runs
 - 400 runs
 - 500 runs
33. Find the value of $\sqrt{81} + \sqrt[3]{\frac{531 \cdot 441}{19 \cdot 683}}$
- 15
 - 9.96
 - 9.18
 - 12

34. A bag contains Re. 1, 50 paise and 25 paise coins in the ratio of 3 : 5 : 8. If the total money in the bag is Rs. 135, find the number of 25 paise coins.
- A. 90
B. 104
C. 144
D. 114
35. The number of solid spheres, each of diameter 6 cm that could be moulded to form a solid metal cylinder of height 45 cm and diameter 4 cm, is :
- A. 5
B. 3
C. 4
D. 6
36. Sum of three fractions is $2\frac{11}{24}$. If the greatest fraction is divided by the smallest fraction the result is $\frac{7}{6}$, which is greater than the middle fraction by $\frac{1}{3}$. Find the greatest fraction.
- A. $\frac{3}{4}$
B. $\frac{7}{8}$
C. $\frac{8}{9}$
D. $\frac{7}{6}$
37. If $x\%$ of 500 = $y\%$ of 300 and $x\%$ of $y\%$ of 200 = 60, then the value of x is :
- A. $25\sqrt{2}$
B. $50\sqrt{2}$
C. $30\sqrt{2}$
D. $20\sqrt{2}$

38. If $3\sqrt{5} + \sqrt{125} = 17.88$, then the value of $\sqrt{80} + 6\sqrt{5}$ is :

- A. 22.35
- B. 23.45
- C. 20.05
- D. 19.55

39. If $\frac{4}{5}$ of $\frac{1}{8}$ of $\frac{3}{4}$ of B is 64, then what is the cube root of $\frac{3}{5}$ of B?

- A. 7
- B. 9
- C. 4
- D. 8

40. Find the value of $\frac{m^2 - n^2 - 2nr - r^2}{m^2 + n^2 + 2mn - r^2}$

- A. $\frac{m - n - r}{m + n - r}$
- B. $\frac{m + n + r}{m - n + r}$
- C. $\frac{m + r - n}{m + n - r}$
- D. $\frac{mnr}{mn + r}$

41. A man sells a goat for Rs. 800 and loses something. If he had sold it for Rs. 980, his gain would have been double the former loss. Find the cost price of the goat?

- A. Rs. 970
- B. Rs. 840
- C. Rs. 860
- D. Rs. 800

42. A person covers a certain distance with a speed of 18 km/hr in 8 minutes. If he wants to cover the same distance in 6 minutes, what should be his speed?
- A. 20 km/hr
B. 24 km/hr
C. 25 km/hr
D. 18.5 km/hr
43. If $\frac{\cos^2 \theta - 3 \cos \theta + 2}{\sin^2 \theta} = 1$, when $0^\circ < \theta < 90^\circ$ then the value of θ is :
- A. 60°
B. 45°
C. 0°
D. 30°
44. When Rahul divided the surface area of a sphere by the sphere's volume, he got the answer as $\frac{1}{18}$ cm. What is the radius of the sphere?
- A. 15 cm
B. 34 cm
C. 54 cm
D. 20 cm
45. It was intended to divide Rs. 585 among A, B and C in the ratio of 4 : 3 : 2. But by mistake the distribution was made in the ratio of $\frac{1}{4} : \frac{1}{3} : \frac{1}{2}$. How much does 'C' gain by the error?
- A. Rs. 155
B. Rs. 140
C. Rs. 130
D. Rs. 145

46. A boy travelled a distance of 61 km in 9 hours. He travelled partly on foot at a speed of 4 km/hr and partly on bicycle at a speed of 9 km/hr . The distance travelled on foot is:
- 20 km
 - 15 km
 - 18 km
 - 16 km
47. A 7 m wide road runs outside around a circular park whose circumference is 176 cm. Find the area of the road.
- 1345 m^2
 - 1760 m^2
 - 1386 m^2
 - 1586 m^2
48. If $3\cot\theta = 4$, then $\frac{5\sin\theta + 3\cos\theta}{5\sin\theta - 3\cos\theta}$ is equal to :
- 9
 - 8
 - 1
 - 4
49. A cube of 9 cm edge is immersed completely in a rectangular vessel containing water. If the dimension of the base of the vessel are 15 cm and 12 cm, then find the rise in water level in the vessel?
- 4 cm
 - 4.5 cm
 - 3.5 cm
 - 4.05 cm
50. A pot was $\frac{2}{3}$ full with mud. Karan removed 18 scoops of mud. But later Saran added 12 scoops of mud. When Karan checked, the pot was $\frac{3}{5}$ full. How many scoops of mud can fill the pot completely?
- 100
 - 90
 - 110
 - 88

GENERAL STUDIES

Marks - 100

51. During the reign of Akbar and his successors main systems of revenue assessment prevalent were:

- (i) zabti or dahsala system
- (ii) batai, ghallabakshi or bhaoli
- (iii) kankut and
- (iv) nasaq

- A. Only (i)
- B. Only (i) & (ii)
- C. Only (ii) and (iv)
- D. All of them

52. In medieval period who among the following was considered as ipso facto owner of the soil:

- A. the ruler
- B. the person who first cultivated the wasteland
- C. village panchayat
- D. Feudal lord

53. During whose rule the introduction of measurement of land as "Bighas" introduced in India?

- A. Akbar
- B. Tughlaq
- C. Sher Shah Suri
- D. None of the above

- 54. The land lord system was first introduced in Bengal and Bihar where big landowners were created under the system known as the**
- A. Permanent Settlement
 - B. Ryotwari Syatem
 - C. Mahalwari Syatem
 - D. None of the above
- 55. Which of the following committees in July 1949 had recommended imposition of ceiling on land holdings:**
- A. Agrarian Reforms Committee
 - B. Finance Committee
 - C. Quit India Resolution Committee
 - D. National Planning Committee
- 56. The land which was fallow for three or four years during Mughal period was classified as**
- A. Polaj
 - B. Chachar
 - C. Banjar
 - D. Parauti
- 57. Which movement of 1940s called for a smaller crop share payment and also created the slogan, "He who tills the land, owns the land."**
- A. Tenancy Movement
 - B. Kuka Movement
 - C. Tebhaga movement
 - D. Bhaumik Movement
- 58. Mahalwari system was initiated by**
- A. William Bentinck in Agra and Oudh
 - B. Cornwallis in Madras
 - C. Hastings in Bengal
 - D. Bentinck in Bombay presidency

59. **Acharya Vinoba Bhave hoped to eliminate private ownership of land through.....?**
- A. Satyagrah
 - B. Bhoodan & Gram Daan Movement
 - C. Antodaya
 - D. none of the above
60. **The tax charged on agricultural lands in Vijayanagar Empire was called**
- A. Dhanyadaya
 - B. Swarnadaya
 - C. Niramba
 - D. all of the above
61. **A Patwari in medieval India was:**
- A. a state employee at the village level responsible for recording the areas under various crops
 - B. Land owner with large land
 - C. security officer of the village
 - D. None of the above
62. **Mahal in Mahalwari meant.....**
- A. officer in charge of revenue collection
 - B. British Collector
 - C. proprietary bodies where lands belong jointly to the village community technically called the body of co-shares
 - D. None of the above
63. **The officer through whom revenue was deposited in treasury during Akbar's period was known as:**
- A. Patwari
 - B. Amil
 - C. District magistrate
 - D. None of the above

64. Local revenue official of the pargana during Mughal period was known as.....
- A. Amil
 - B. Karori
 - C. Faujdar
 - D. Qanungo
65. _____ was the Revenue Minister of Akbar.
- A. Mansingh
 - B. Todarmal
 - C. Jaimal
 - D. Abulfajal
66. The system Kuruwa of Sikkim was abolished in the year _____
- A. 1947
 - B. 1948
 - C. 1949
 - D. 1980
67. State Government Prohibited Opening of new land (Khasmal) in _____.
- A. 1948
 - B. 1949
 - C. 1977
 - B) 1980
68. Prior to dated 17-10-50, The house tax known as Dhuri khazana had ought to pay by the Ryots to land lord @ of _____
- A. Rs. 1
 - B. Rs. 3
 - C. Rs. 5
 - D. Rs. 7

69. The tripartite agreement "Lho -Men-Tshong Sum" was signed in the year _____
- A. 1640
 - B. 1641
 - C. 1642
 - D. 1643
70. Tshuphud Namgyal presented Darjeeling to East India Company whose capital Darbar was then located at
- A. Yuksam
 - B. Rabdentse
 - C. Tumlong
 - D. Gangtok
71. The first Sikkim Cultivator Protection (Temporary Provision) Act was brought into force by then L.D. Kazi Government in the year _____
- A. 1975
 - B. 1976
 - C. 1977
 - D. 1978
72. Which river originates from Tso Lhamu lake?
- A. Rangit
 - B. Rathong
 - C. Rangyong
 - D. Teesta
73. What is the total geographical area of Kitam Bird Sanctuary?
- A. 04.00 Sq. km
 - B. 05.00 Sq. km
 - C. 06.00 Sq. km
 - D. 07.00 Sq. km

74. The most disastrous floods (Natural calamity in Sikkim) took place in the year _____
- A. 1948
 - B. 1958
 - C. 1968
 - D. 1978
75. A notice restricting the sale, sublet and mortgage of land belonging to Bhutia and Lepcha to others without express sanction of council was issued by _____ in 1897.
- A. C. A. Bell
 - B. J. C. White
 - C. Colman Maculey
 - D. Campbell
76. There is an old notification bearing no. 3082/LR dated 24th March 1954 issued by the then _____, ruler of Sikkim which bans the purchasing of agricultural land by the person who is not a Sikkim subject.
- A. Tashi Namgyal
 - B. P. T. Namgyal
 - C. Tshuphud Namgyal
 - D. Tenzing Namgyal
77. The Mondal System for collection of land Revenue was stopted w.e.f. _____
- A. 1/2/1987
 - B. 1/3/1987
 - C. 1/4/1987
 - D. 1/5/1987
78. The fullfledged land record office was set up at the state level, Distric level and village level of Sikkim from _____
- A. 1981
 - B. 1982
 - C. 1983
 - D. 1984

79. When a person mortgages his field to a creditor and pays the produce of the field as an annual instalment towards the loan, it is known as
- A. Biyaz
 - B. Pakhuria
 - C. Masikata
 - D. None of the above
80. According to the Revenue Order No. 1 of 17th May, 1917,
- A. Land belonging to Bhutias and Lepchas can be sold, sub-let or mortgaged to another Bhutia or Lepcha, after seeking express sanction of the Darbar.
 - B. Land belonging to Bhutia and Lepcha can only be sub-let to any person other than a Bhutia or Lepcha.
 - C. Land belonging to Bhutia and Lepcha can be sold, sub let or mortgaged to any person other than a Bhutia or Lepcha, without the express sanction of the Darbar.
 - D. Land belonging to Bhutia and Lepcha cannot be sold, sub-let or mortgaged to any person other than a Bhutia or Lepcha, without the express sanction of the Darbar.
81. Any document, such as mortgage and sale deeds, shall not be considered valid unless it is
- A. Sealed
 - B. Signed
 - C. Mutated
 - D. Registered
82. Every Registration Office is required to keep _____ District Books
- A. 2
 - B. 4
 - C. 6
 - D. 8

- 83. During registration of any document, if the document presented for registration is in a language not understood by the Registering Officer, or is in a language that is not commonly used in Sikkim,**
- A. It can be registered as any other document.
 - B. It cannot be registered as it is not in a language understood in the State.
 - C. It can be registered if accompanied with a true translation copy into English language.
 - D. It can be registered after the contents of the document are verbally explained to the Registering Officer by the executor of the document.
- 84. A secondary land holder who engages in cultivation of land belonging to a land owner or a lessee on condition of rendering a stipulated amount of cash or crop to the land owner is called**
- A. Kutiadar
 - B. Adhiadar
 - C. Pakhuria
 - D. None of the above
- 85. The law of continuous adverse possession applies in case when a secondary holder remains in possession of any land for over**
- A. 6 years
 - B. 8 years
 - C. 10 years
 - D. 12 years
- 86. The Right to Fair Compensation and Transparency in Land Acquisition Rehabilitation and Resettlement Act, 2013 repeals**
- A. The Land Acquisition Act, 1894
 - B. The Sikkim Agricultural Land Ceiling and Reforms Act, 1977
 - C. The National Rehabilitation and Resettlement Policy, 2007
 - D. None of the above