

GENERAL MATHEMATICS
For Class-IX (75 Marks)

1. **PERCENTAGE, RATIO AND PROPORTION**
 - 1.1 Percentage
 - 1.2 Ratio
 - 1.3 Proportion
 - 1.4 Compound Proportion
2. **ZAKAT, USHR AND INHERITANCE**
 - 2.1 Zakat
 - 2.2 Ushr
 - 2.3 Inheritance
3. **BUSINESS MATHEMATICS**
 - 3.1 Profit and Loss
 - 3.2 Discount
 - 3.3 Business Partnership
4. **FINANCIAL MATHEMATICS**
 - 4.1 Commercial Banking
 - 4.2 Exchange of Currencies
 - 4.3 Profit/Markup
 - 4.4 Insurance
 - 4.5 Leasing/Financing
5. **CONSUMER MATHEMATICS**
 - 5.1 Taxes
 - 5.2 Utility Bills
 - 5.3 Personal Income
6. **EXPONENTS AND LOGARITHMS**
 - 6.1 Radicals and Radicands
 - 6.2 Laws of Exponents/indices
 - 6.3 Scientific Notation
 - 6.4 Logarithm
 - 6.5 Laws of Logarithm
 - 6.6 Application of Logarithm
7. **ARITHMETIC AND GEOMETRIC SEQUENCES**
 - 7.1 Sequence
 - 7.2 Arithmetic Sequence
 - 7.3 Arithmetic Mean
 - 7.4 Geometric Sequence
 - 7.5 Geometric Mean
8. **SETS AND FUNCTIONS**
 - 8.1 Set
 - 8.1.1 Operations on Sets
 - 8.1.2 Properties of Union and intersection
 - 8.1.3 Venn Diagram
 - 8.2 Binary Relation
 - 8.3 Function
9. **LINEAR GRAPHS**
 - 9.1 Cartesian Plane and Linear Graphs
 - 9.2 Conversion Graphs
10. **BASIC STATISTICS**
 - 10.1 Frequency Distribution
 - 10.2 Cumulative Frequency
 - 10.3 Measure of Central Tendency
 - 10.4 Measures of Dispersion



Federal Board SSC-I Examination
General Mathematics Model
Question Paper

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Roll No:

Answer Sheet No: _____

Signature of Candidate: _____

Signature of Invigilator: _____

SECTION – A

Time allowed: 20 minutes

Marks: 15

Note: Section-A is compulsory and comprise pages 1-3. All parts of this section are to be answered on the question paper itself. It should be completed in the first 20 minutes and handed over to the Centre Superintendent. Deleting/overwriting is not allowed. Do not use lead pencil.

Q.1 Insert the correct option i.e. A / B / C / D in the empty box provided opposite each part. Each part carries one mark.

i. 20% of 600 is:

A. 12
C. 20

B. 120
D. 200

ii. The share of a widow in inherited property is:

A. $\frac{1}{4}$
C. $\frac{1}{3}$

B. $\frac{1}{8}$
D. $\frac{1}{2}$

iii. Loss is there when:

A. $S.P > C.P$
C. $S.P < C.P$

B. $S.P = C.P$
D. $S.P = M.P$

iv. Year starting from 1st July is called:

A. Financial year
C. Lunar year

B. New year
D. Solar year

v. The periodic installment to be paid by the insured is called:

A. bonus
C. premium

B. maturity
D. insurer

DO NOT WRITE ANYTHING HERE

vi. The amount payable at the time of agreement for leasing a car is called:

- A. Down payment B. Installment
C. Markup D. Processing fee

vii. A machine installed by the bank to dispense cash to customer is called an:

- A. bank draft B. scanner
C. computer D. ATM

viii. The tax in addition to the price of the article is called:

- A. tax B. income tax
C. excise duty D. sales tax

ix. $\sqrt[3]{8} =$

- A. $2\sqrt{2}$ B. $3\sqrt{2}$
C. 2 D. $2\sqrt{3}$

x. In $4^{\frac{1}{10}}$, 10 is called:

- A. radical B. base
C. radicand D. exponent

xi. $\log_{10} 100 =$

- A. 0 B. 1
C. 2 D. 10

xii. A.M between $2\sqrt{5}$ and $6\sqrt{5}$ is:

- A. $4\sqrt{5}$ B. $3\sqrt{5}$
C. $5\sqrt{5}$ D. $7\sqrt{5}$

xiii. If $A \subset B$ then $A \cap B =$

A. B
C. ϕ

B. A
D. U

xiv. The coordinates of origin are:

A. $(1, 0)$
C. $(1, 1)$

B. $(0, 1)$
D. $(0, 0)$

xv. For the data 6, 2, 4, 3, 4, 5, 4, 5, the value of mode is:

A. 3
C. 5

B. 4
D. 2

For Examiner's use only

Q No.1: Total Marks:

15

Marks Obtained:



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Federal Board SSC-I Examination
General Mathematics Model Question Paper

Time allowed: 2.40 hours

Total Marks: 60

Note: Sections 'B' and 'C' comprise pages 1-2 and questions therein are to be answered on the separately provided answer book. Answer all the questions from section 'B' and attempt any four questions from section 'C'. Use supplementary answer sheet i.e., sheet B if required. Write your answers neatly and legibly.

SECTION-B

(Marks: 36)

Q.2 Attempt any 12 parts of the following. Each part has equal marks.

(Marks 12x3 = 36)

- i. If 82% of the houses have a television, what percentage do not have?
- ii. If $a : b = 2 : 3$, find the ratio $6a : 2b$.
- iii. Calculate Ushr on a rice crop produced by natural resources amounting to Rs.6,00,000/-.
- iv. A book is sold for Rs.650/- at a profit of 30%. Find the cost price.
- v. Find the market price when S.P = Rs.858, and discount = 12%.
- vi. If the simple profit on Rs.640/- for 12 years is Rs.384. Find the rate of profit.
- vii. Simplify $\sqrt[4]{\frac{x^5y^6}{z^2}}$
- viii. Simplify $\frac{5a^{3/4}.b^{3/5}}{20.a^{1/5}.b^{1/4}}$
- ix. Solve $\frac{\log 243}{\log 9}$
- x. Find A.M between 4 and 8.
- xi. If $A = \{-2, 1, 4\}$ then write two binary relations in A also. Write their domain and ranges.
- xii. Draw the graph of $y = 4x + 1$
- xiii. Find geometric mean of 2, 4 and 8.
- xiv. A computer price is Rs.34,000/- inclusive of 16% sales tax. What is the original price of the computer?
- xv. What sum would borrow in Rs.174/- as markup at 5% in 4 years?
- xvi. Find the 7th term of a G.P 2, 8, 32,
- xvii. If $A = \{1, 4, 7, 8\}$, $B = \{4, 6, 8, 9\}$ and $C = \{3, 4, 5, 7\}$ then find $(A \cap B) \cap C$.
- xviii. Simplify $\frac{0.96 \times 10^7}{2 \times 10^4}$

SECTION – C
(Marks: 24)

Note: Attempt any FOUR questions. Each question carries equal marks.

(Marks 4x6=24)

- Q.3 A factory makes 560 fans in 7 days with the help of 20 machines. How many fans can be made in 12 days with the help of 18 machines?
- Q.4 The price of car is Rs.12,50,000/- whereas the rate for premium is Rs.4.50% for a tenure of 5 years. Calculate the total amount paid as insurance.
- Q.5 Rs.3720/- are to be divided in three shares in such a way that 1st share would be double, triple to the 2nd and 5 times to the 3rd are equal.
- Q.6 Evaluate by using the logarithm $\frac{8.67 \times 3.94}{1.78}$
- Q.7 If $U = \{7, 8, 9, 10, 11, 12, 13, 14\}$, $A = \{7, 10, 13, 14\}$ and $B = \{7, 8, 11, 12\}$, then verify $(A \cap B)^c = A^c \cup B^c$.
- Q.8 Find the standard deviation for the values 1, 2, 3, 4, 6, 8, 11. Also find the variance in this case.
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