

State Institute of Educational Research & Training, Udaipur
Elementary Education Completion Certificate Examination 2016-17

Class- 8

Subject- Mathematics

1. Weightage based on Learning Area and Subject Matter

Sr. No.	Learning Area	Chapter	Weightage	Type of Questions				Total
				OT	VSA	SA	ET	
1	Number System	Chapter 1,2,3,4,5	15	1(1)	2(1)	12(3)	–	5
2	Comparing Quantities	Chapter 13	8	–	2(1)	–	6(1)	2
3	Algebra	Chapter 9,10,11	15	1(1)	2(1)	12(3)	–	5
4	Basic Geometry	Chapter 6,7,8	19	1(1)	4(2)	8(2)	6(1)	6
5	Mensuration	Chapter 14,15	10	–	–	4(1)	6(1)	2
6	Data Handling	Chapter 12,16	13	1(1)	2(1)	4(1)	6(1)	4
Total			80	4(4)	12(6)	40(10)	24(4)	24

2. Weightage based on the objectives

Sr. No.	Objectives	Number of Questions	Weightage	Percentage
1	Remembering	4	1	5%
2	Understanding	6	2	15%
3	Applying	6	4	30%
4	Analysis	4	4	20%
5	Evaluating	2	6	15%
6	Creating	2	6	15%
Total		24		100%

3. Weightage based on the Type of Questions

Sr. No.	Type of Questions	Number of Questions	Marks per Question	Total	Percentage	Approx Time
1	Obejective Questions	4	1	4	5%	5 min
2	Very Short Answer Questions	6	2	12	15%	25 min
3	Short Answer Questions	10	4	40	50%	70 min
4	Long Answer Questions	4	6	24	30%	40 min
5	Exam related other work	-	-	-	-	10 min
		24		80	100%	150 min

Class- 8

Blue Print

Mathematics

Learning Area	Sr. No.	Objectives			Remembering				Understanding				Applying				Analysis				Evaluating				Creating				Total
		Chapter's Name	Chapter Serial	Weightage (No. of Questions)	OT	VSA	SA	ET	OT	VSA	SA	ET	OT	VSA	SA	ET	OT	VSA	SA	ET	OT	VSA	SA	ET	OT	VSA	SA	ET	
Number System	1	Rational Numbers	1	15(5)										4(1)														4(1)	
	2	Cube and Cube Roots	2		1(1)																								1(1)
	3	Powers and Exponents	3						2(1)																				2(1)
	4	Brain Storming	4												4(1)														4(1)
	5	Vedic Mathematics	5												4(1)														4(1)
Comparing Quantities	6	Comparing Quantities	13	8(2)					2(1)																	6(1)	8(2)		
Algebra	7	Algebraic Expressions	9	15(5)					2(1)					4(1)														6(2)	
	8	Factorization	10		1(1)													4(1)										5(2)	
	9	Linear Equations in One Variable	11															4(1)										4(1)	
Basic Geometry	10	Polygon	6	19(6)										4(1)			4(1)											8(2)	
	11	Construction of Quadrilateral	7						2(1)																		6(1)	8(2)	
	12	Visualising Solid Shapes	8		1(1)				2(1)																			3(2)	
Mensuration	13	Area	14	10(2)										4(1)													4(1)		
	14	Surface Area and Volume	15																						6(1)		6(1)		
Data Handling	15	Linear Graphs	12	13(4)	1(1)																					6(1)	7(2)		
	16	Data Handling	16						2(1)									4(1)										6(2)	
		Total		80(24)	4(4)				12(6)				24(6)				16(4)				12(2)				12(2)				80(24)

Note- 1. Road Safety related questions are added with chapter data handling.

2. Weightage of question is represented by number outside the bracket and number of questions is represented by number inside the bracket.

Elementary Education Completion Certificate Examination 2016-17

Sample Question paper

Class- 8

Subject- Mathematics

Time-2:30 Hrs.

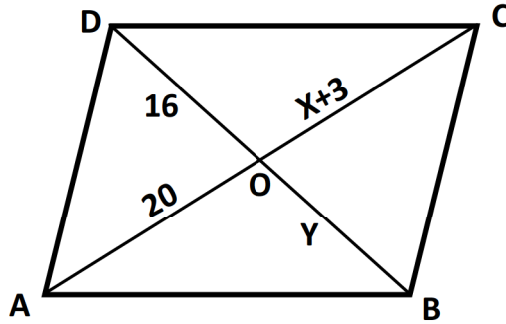
m.m. 80

General Instructions for Candidates:-

1. First of all Candidates write their roll. no. on Question paper as well as on Answer book given to them.
2. All Questions have to be solved.
3. Write the Answer of each Question in given Answer book.
4. The marks of all Questions are given in front of them.

Roll No.							Date								
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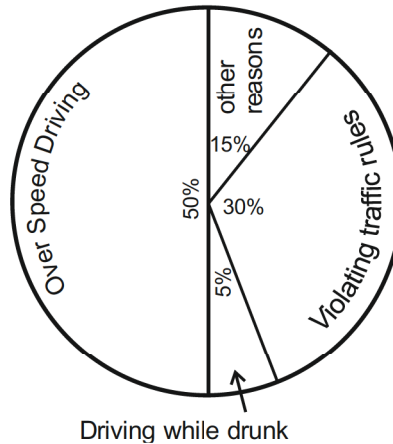
1. The cube-root of 64 is-
(a) 4 (b) 8 (c) 16 (d) 32 () 1
2. The factors of expression $x^2+(a+b)x+ab$ are-
(a) $(x+a)(x-b)$ (b) $(x-a)(x+b)$ (c) $(x+a)(x+b)$ (d) $(x-a)(x-b)$ () 1
3. Number of vertices in a cuboid are—
(a) 12 (b) 8 (c) 6 (d) 4 () 1
4. The coordinates of origin in any co-ordinate plane is-
(a) (0,1) (b) (1,0) (c) (1,1) (d) (0,0) () 1
5. Write standard form of the following number- 2
(a) 10350000 (b) 0.0007305
6. Under swachhabharatabhiyan 15 volunteers can clean a village in 4 days.
how many volunteers are required for cleaning the village in 3 days? 2
7. Simplify— 2
 $(a+b)(a-b)-(a^2+b^2)$
8. Write any two conditions for constructing a unique quadrilateral. 2
9. Find the number of faces in polyhedron having vertices 10 and edges 16. 2
10. Write answer of the following questions according to the number of books given in the bar graph- 2
(1) Which subject has maximum books and how much?
(2) Out of books of math's and science which subject has less books and how many?



20. Accidents occurring by driver's negligence's are shown in the given pie-chart. Using pie-chart give answers of the following questions. 4

(1) What is the cause of maximum accidents?

(2) How many accidents occurred by violating traffic rules.

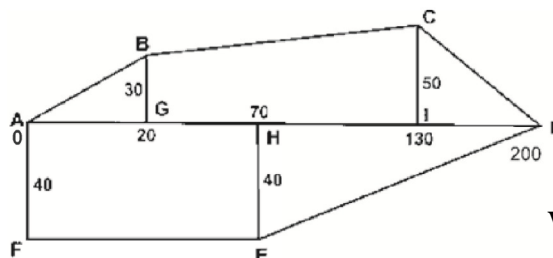


21. A businessman sold two television sets at the rate of Rs. 36000 for each television set. If he gets 20% profit on one television set and 20% loss on other television set, then find the percentage of profit or loss in total transaction. 6

or

A farmer took loan of Rs. 20000 from nationalized Bank for his agricultural work. If bank charges interest at the Rate of 14% yearly and the interest is compounded yearly. What is the total amount to be paid after 2 years 6 months? 6

22. As shown in the given picture a farm is similar in the shape of polygon ABCDEF. All measurements are given in meters. Find the area of polygon ABCDEF. 6



or

The curved surface area of a cylindrical tank is 440 m^2 Its height is 4m. Find volume of the tank.6

23. Construct a rhombus in which one angle is 75° and the side is 5.2 cm. 6

24. Construct a linear graph in time and distance according to following table. 6

Time(in hrs.)	2	4	6	8	10
Distance(km.)	10	20	30	40	50

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