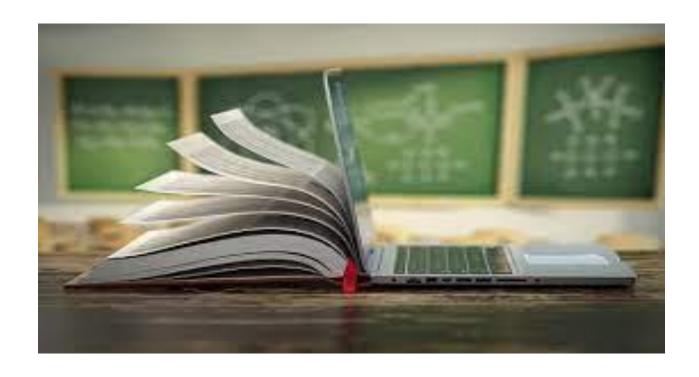


RESOURCES FOR "SSC-IGEN. MATHEMATICS" ZUEB EXAMINATIONS 2021



PREFACE:

The ZUEB examination board acknowledges the serious problems encountered by the schools and colleges in smooth execution of the teaching and learning processes due to sudden and prolonged school closures during the covid-19 spread. The board also recognizes the health, psychological and financial issues encountered by students due to the spread of covid-19.

Considering all these problems and issues the ZUEB Board has developed these resources based on the condensed syllabus 2021 to facilitate students in learning the content through quality resource materials.

The schools and students could download these materials from www.zueb.pk to prepare their students for the high quality and standardized ZUEB examinations 2021.

The materials consist of examination syllabus with specific students learning outcomes per topic, Multiple Choice Questions (MCQs) to assess different thinking levels, Constructed Response Questions (CRQs) with possible answers, Extended Response Questions (ERQs) with possible answers and learning materials.

ACADEMIC UNIT ZUEB:

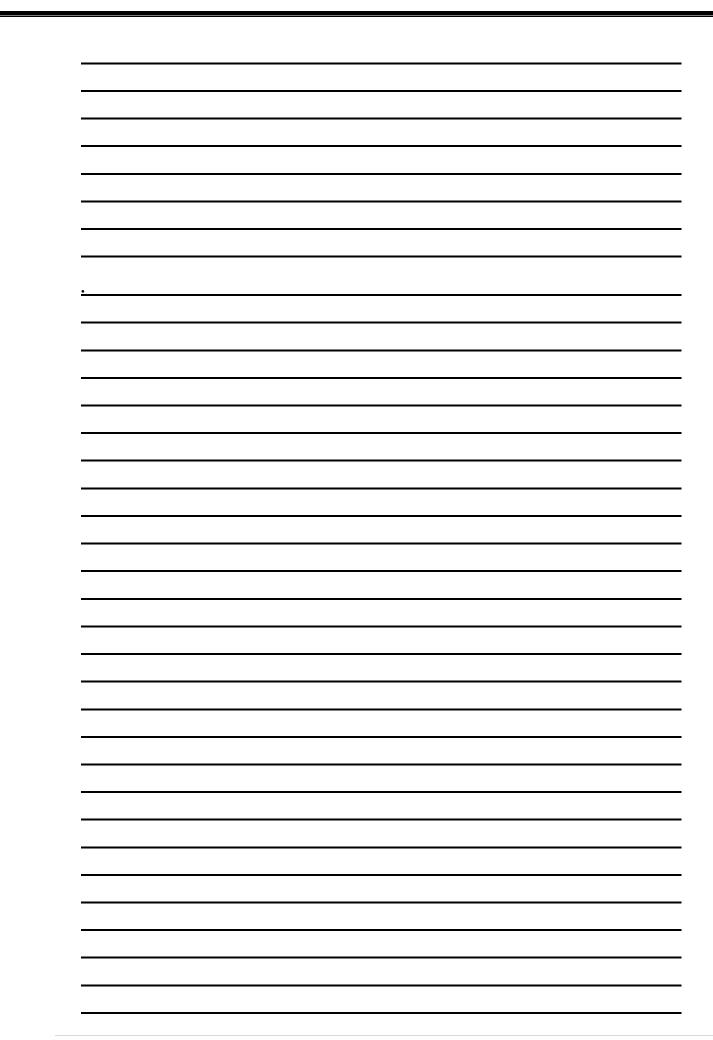
1. Extended Response Questions (ERQs)

HOW TO ATTEMPT ERQs:

- Write the answer to each Constructed Response Question/ERQs in the space given below it.
- Use black pen/pencil to write the responses. Do not use glue or pin on the paper.

SECTION C (LONG ANSWER QUESTIONS)

1. WhyROM is called Nonvolatilememory. Explain?
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S. N	ERQ			ANSWER		D L	
O				L	L		
	A man left behind him an inheritance (Tarka) worth Rs 30,000. Distribute the tarka among hisfoursonsandthreedaughterssuchthateachsonget stwiceasmuchasadaughter. The deceased dies leaving behind him adebtof Rs 8000. Find the solution set of the equations: x+y=4,2x - y=5 Measure of the sizes (indecimeters) of 100 scouts are given below. Find the A. Moftheir sizes			Each son: Rs. 4000 Each daughter: Rs. 2000			
				{(3,1)}			
				13.3			
	Measureofsizes 8-10	10-12	12-14	14-16			
	No.of scouts 5	18	42	27			
	Solve the following, then convert into Decimal System, multiply and thus check your answer. (i) $243_5 \times 2_5$ (ii) $342_5 \times 43_5$ Find $A \times B$, $B \times A$, $A \times A$ and $B \times B$ when (i) $A = \{1,2\}$, $B = \{4,6,8\}$ (ii) $A = \{a,b\}$, $B = \{0,-1\}$ (iii) $A = \{1\}$, $B = \{x,y,z,s\}$ Is $A \times B = B \times A$?			(i) 14230_5 (ii) 32411_5 $A \times B = \{(1,4), (1,6), (1,8), (2,4), (2,6), (2,8)\}$ $B \times A$ $= \{(4,1), (4,2), (6,1), (6,2), (8,1), (8,2)\}$ (i) $A \times A = \{(1,1), (1,2), (2,1), (2,2)\}$ $B \times B$ $= \{(4,4), (4,6), (4,8), (6,4), (6,6), (1,1), (1,2), (1,$			
	the following equal (i) log ₄ 16 (ii) log ₁₆ N (iii) log _a 12	tions; x = x $y = \frac{1}{2}$	a oi iv itoi	11	(ii) 2 (ii) 4 (iii) 5		

	he following questions using the	(i)	5	
given tabl		(ii)	16	
Marks O		(iii)	11	
1 to 15	5	(iv)	29	
16 to 30	23	(v)	15	
31 to 45	18	(vi)	45	
46 to 60	11	(vii)	Zero	
61 to 75	3	(viii)	15	
(i)	How many class-intervals are there?	(ix) (x)	61 – 75 60	
(ii)	What is the lower limit in the interval (16 to 30)?			
(iii)	What is the class frequency of (46 to 60)?			
(iv)	What is the number of students securing marks from 31 to 60?			
(v)	What is the magnitude of class-interval (16 to 30)?			
(vi)	What is the upper limit of class- interval having 18 as class frequency?			
(vii)	What is the number of students securing marks from 15 to 16?			
(viii) What is the magnitude of class-interval?				
(ix) In which class-interval is the least number of students?				
(x)	How many students secure marks from 1 to 75?			
A train co	vers the distance between two	4 1 hours		
	hours and 12 minutes at the speed	$4\frac{1}{2}$ hour		
	meters per hour. What time would			
	cover the same distance if the train			
runs at the	e speed of 28,000 meters per hour?			
	ath of a person his heirs were 3	Mother: R	Rs.6000	
daughters,	his mother and his father. A debt	Father: Rs	s. 6000	
_	000 was due on him. Find the bares	Each daug	ghter: Rs.8000	
of every h	er out of a 'Tarka' worth			
) so that father and mother gets $\frac{1}{4}$			
	each daughter gets $\frac{2}{9}$ of the			
property.	sends a motor car from outside	Rs. 3922		
Pakistan.	He paid 21,000 rupees for it upto	NS. 3744	J	
Karachi. On the amount he had to pay 80%				
as custom duty and a sum of 1425 rupees as				
	Find the total inland price of the			
motor car.				
Jamal Khan purchased the following things			0	
and was allowed discount at different rates.				
How much did he pay in total: (i) Rooks of 550 rupees at 20%				
(i)	Books of 550 rupees at 20%	<u> </u>		

	discoun.		
(ii)	Note books of Rs. 250 at 15%		
	discount.		
(iii)	Pens of 120 rupees at 10%		
	discount.		

