

## CBCS SCHEME

18MN32

(10 Marks)

## Third Semester B.E. Degree Examination, Jan./Feb. 2021 **Elements of Mining Engineering**

Time: 3 hrs.

Max. Marks: 100

ė;	Note: Answer any FIVE full questions, choosing ONE full question from each module.			
<ul><li>3 blank pages.</li><li>50, will be treated as malpractice.</li></ul>			Module-1	
nalp	1	a.	Write the significance of mining industry in national economy.	(10 Marks)
as n		b.	Explain basic mining terminologies.	(10 Marks)
ated				(10 1/24/15)
s. e tre	2	a.	OR  Describe shape and size of the drive and also explain the factors influencing shape and size of the drive and also explain the factors influencing shape and size of the drive and also explain the factors influencing shape and size of the drive and also explain the factors influencing shape and size of the drive and also explain the factors influencing shape and size of the drive and also explain the factors influencing shape and size of the drive and also explain the factors influencing shape and size of the drive and also explain the factors influencing shape and size of the drive and also explain the factors influencing shape and size of the drive and also explain the factors influencing shape and size of the drive and also explain the factors influencing shape and size of the drive and also explain the factors influencing shape and size of the drive and also explain the factors influencing shape and size of the drive and also explain the factors influencing shape and size of the drive and size of the drive and also explain the factors influencing shape and size of the drive an	and alms
age II bo	2	a.	of the drive.	-
On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Any revealing of identification, appeal to evaluator and /or equations written eg, $42+8=50$ , will be the second of identification appeals to evaluate and it is a second of identification.		b.	Explain different surface arrangement of shaft sinking.	(10 Marks) (10 Marks)
5 bla = 5(				(IVIVIAINS)
nıng 2+8			Module-2	
mai 3, 4,	3	a.	Write down the geotechnical investigations for shaft sinking operation.	(10 Marks)
On completing your answers, compulsorily draw diagonal cross lines on the rem Any revealing of identification, appeal to evaluator and /or equations written eg,		b.	Explain the method of sinking shaft in pressurized, loose and running soil area.	(10 Marks)
on th				
ns w	4		OR  Exploin the need and needs of the description o	
s lir atioi	4	a.	Explain the need and necessary for deepening of the operating shaft.	(10 Marks)
edu		b.	Explain the freezing method of shaft sinking.	(10 Marks)
nal /or			Module-3	
and	5	a.	Write note on Mirage of cross cuts from shaft to reach ore body by convention	al methods.
w d ator				(10 Marks)
dra valu		b.	Explain the ventilation system in drive.	(10 Marks)
orily to e			OR	
eal	6	a.	With a neat sketch explain the Alimark raise climber.	(10 Marks)
omp		b.	Describe the drilling pattern for underground hard rock.	(10 Marks)
rs, c ion,				
swe	7		Module-4	S. J. Is
r an entij	7		Explain different types of support system in underground mines.	(10 Marks)
you f id		υ.	With a neat sketch, explain the cog support system.	(10 Marks)
o gu			OR	
ıplet ealii	8	a.	Explain the roof bolting system with a neat sketch.	(10 Marks)
con		b.	Write note on hydraulic support in long derives.	(10 Marks)
On Any			Module-5	
1.	9	a.	Describe conventional method of drilling in underground hard rock mines.	(10 Marks)
ote		b.	Describe contribution and working principle of tunnel boring machine.	(10 Marks) (10 Marks)
Z ta			2 source convicement and working principle of termior borning indennie.	(10 Marks)
Important Note : 1. 2.			OR	
dwl	10	a.	Write down different types of transportation of muck in underground by c	
_			method.	(10 Marks)

b. Describe shield tunneling method.

Important Note: 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.