

RACE - 8

1 Ans - D

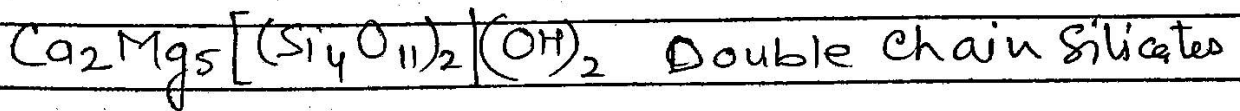
In sheet silicate three corner oxygen atoms are shared.



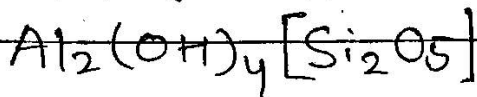
Chain Silicates



Cyclic Silicates



Double Chain Silicates



Sheet Silicates

2 Ans - B

No. of corner O shared / unit

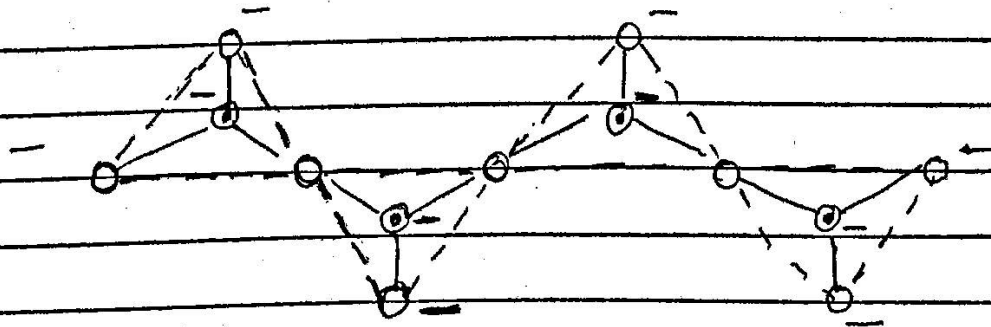
3D Silicate

4

Pyroxene Silicate

2

3 Ans - B CD

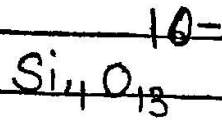


No. of Si = 4

No. of O = 10

No. of (-) charge = 10

Formula



Comprehension : (Q-4 to Q-6)

Solution :

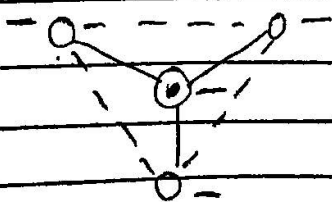
Silicate Unit	No. of unshared O /Td unit	No of shared 'O' /Td unit.
$(Si_4O_{11}^{-6})_n$	(2,1) Av. 1.5	(2,3) Av = 2.5
$(Si_2O_5^{-2})_n$	1	3
$(SiO_2)_n$	0	4
$(SiO_3^{-2})_n$	2	2

4 ANS - B

5 ANS - C

6 ANS - D

7 ANS - B

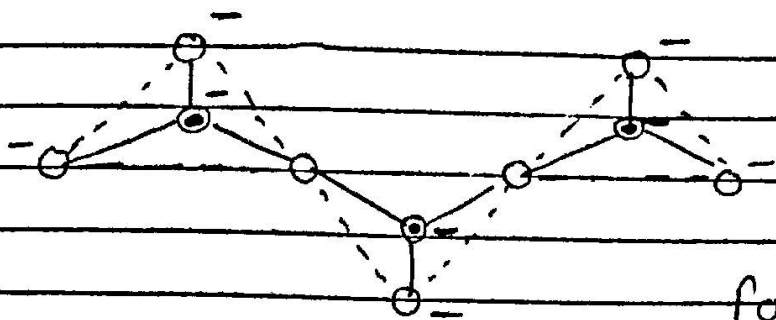


No of Si atom = 1

" " " " = 4

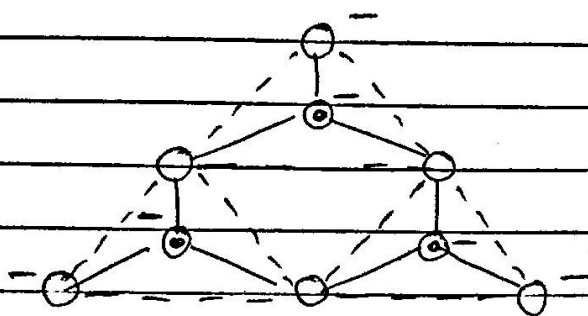
Charge = -4

formula SiO_4^{4-}



No. of Si = 3
 No. of O = 10
 Charge = -8
 formula = $\text{Si}_3\text{O}_{10}^{-8}$

8. Ans - B

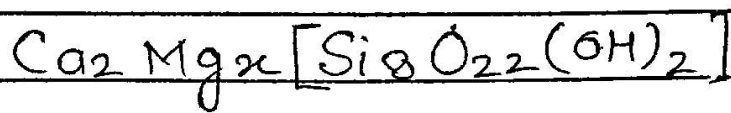


No. of Si = 3
 No. of O = 9
 Charge = -6
 formula = $\text{Si}_3\text{O}_9^{-6}$

9. Ans - C

Unit	No. of O shared/unit	No. of unshared O/unit
$\text{Si}_2\text{O}_7^{2-}$	1	3
$(\text{Si}_2\text{O}_5)^{2-}$	3	1
$(\text{SiO}_3)^{2-}$	2	2
SiO_4^{4-}	4	0

10 Ans - 5



$2(+2) + x(+2) + 8(+4) + 22(-2) + 2(-1) = 0$

$x = 5$

RACE # 08

M.M. : 30

Only one correct :

1. Ans. (D)

2. Ans.(B)

One or more than one may be correct :

3. Ans.(B,C,D)

Comprehension : (Q.4 to Q.6)

4. Ans. (B)

5. Ans. (C)

6. Ans. (D)

Comprehension : (Q.7 to Q.9)

7. Ans.(B)

8. Ans.(B)

9. Ans.(C)

Subjective :

10. Ans.(5)

Answer key.

Page-8