

2008-C

1	B	11	B	21	B
2	A	12	C	22	C
3	B	13	C	23	B
4	B	14	B	24	B
5	A	15	B	25	A
6	A	16	C	26	B
7	B	17	D	27	D
8	C	18	A	28	D
9	B	19	B	29	C
10	C	20	C	30	C

31.(a) A fossil is said to be an Index fossil if it has following characteristics:

- (i) Wide geographical range
- (ii) Short geological time period
- (iii) Characteristic morphological feature

Paradoxide- mid Cambrian

Indoceramus- Jurassic – creataceous

(b) 1- Umbo

2- hinge area

3- hinge

4- shell

5- aperture

6- whorl

32.

(a)Cuddapah supergroup



Fig. 8.4. Distribution of Cuddapah Rocks in India.

Kistna
Nallamallai
Cheyair
Papaghani

(b) Upper Triassic

Middle Triassic

Lower Triassic

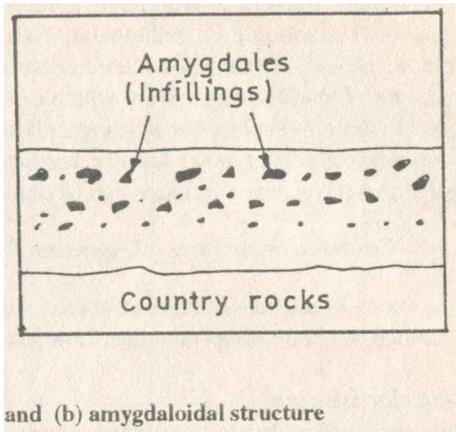
33.(a) X- Porcellinite, Y- Dolomitic limestone

(b) flute casts



Common sole marks: (a) flute

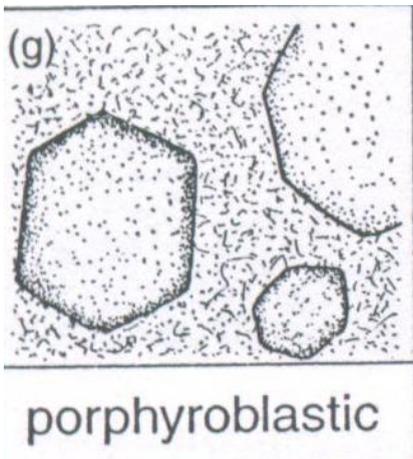
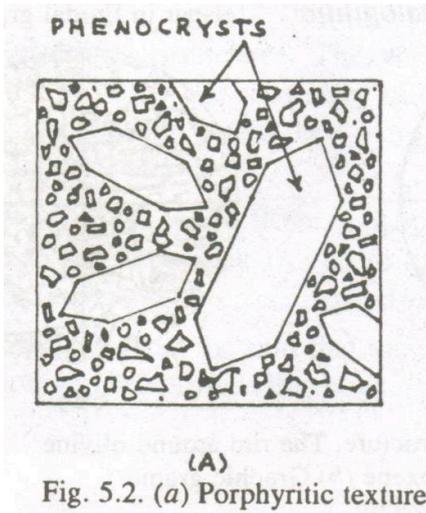
Amygdaloidal fillings



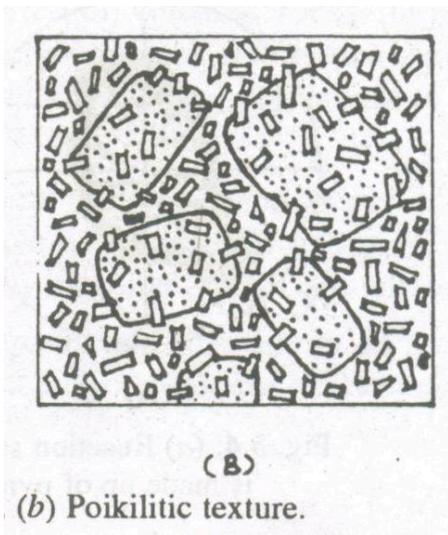
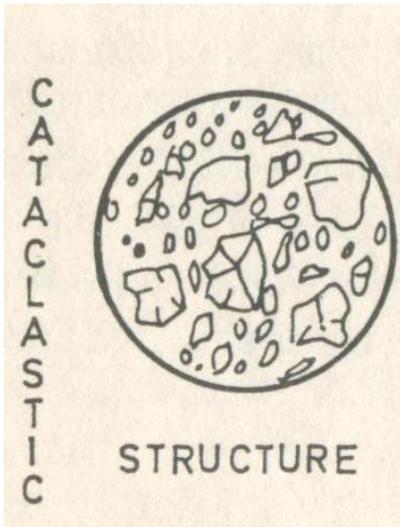
Augen structure

34.

(a)

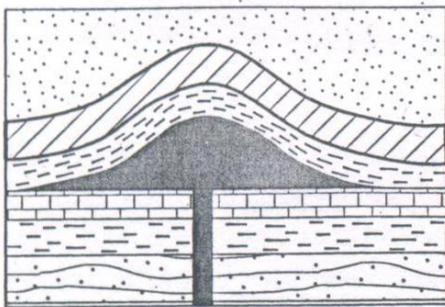


(b)

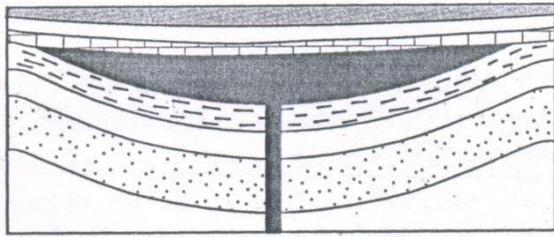


(ophitic texture is a type of poikilitic texture)

35.(a)



laccolith



Iopolith

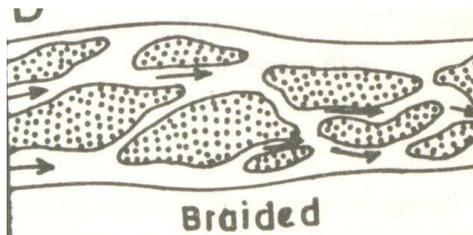
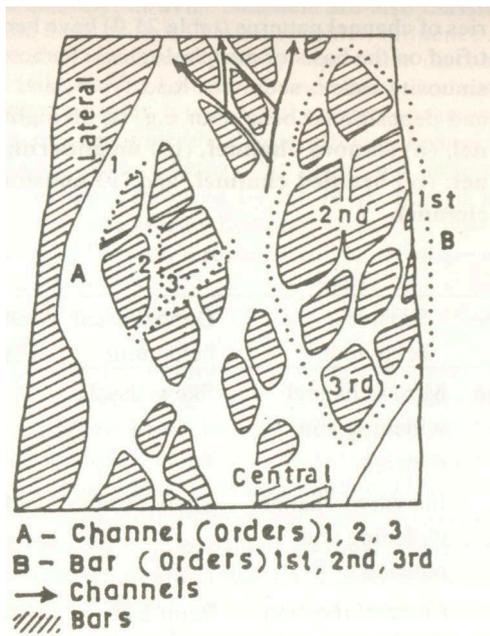
(b)

Quartz	Microcline
No cleavage	2 set cleavage
Interference colour- 1 st order yellow	Interference colour- 1 st order grey
Wavy / undulatory extinction	Inclined extinction
	Cross hatched twinning
Optic sign- Uniaxial (+)	Optic sign- Biaxial(-)

Hornblende	Augite
Pleochroic	Non-pleochroic
Cleavage angle- 124 ^o -56 ^o	Cleavage angle- 87 ^o -93 ^o
Extinction angle- 18 ^o	Extinction angle- 35 ^o -40 ^o
Optic sign- Biaxial(-)	Optic sign- biaxial(+)

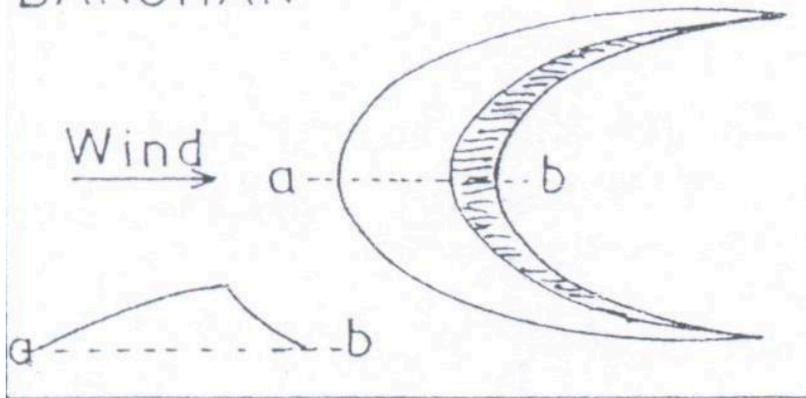
36.

(a)

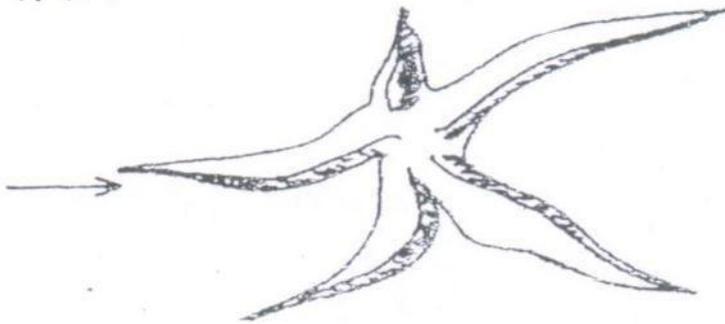


(b)

BARCHAN



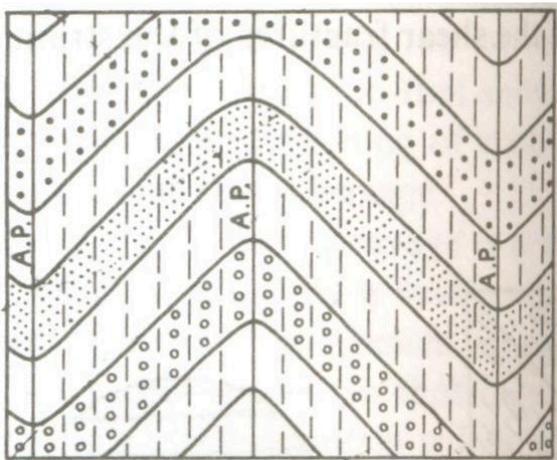
STAR



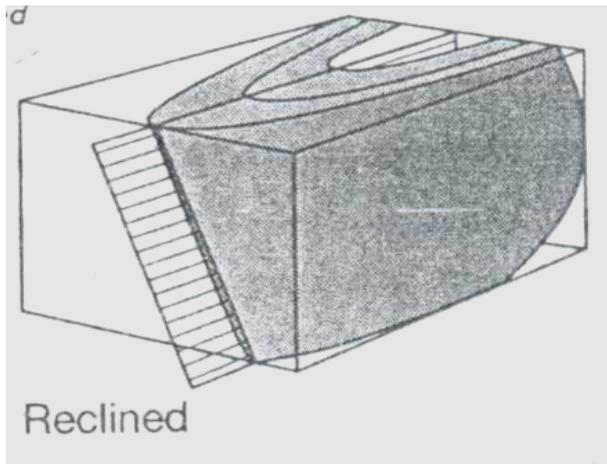
37.

(a)

(b)



axial plane foliation



38. (a) No. of axes- 3

Length-?

Orientation of axes - $a \wedge b \wedge c = 90^\circ$

Symmetry elements:-

(i) 3 axes of symmetry

(ii) 3 plane of symmetry

(iii) one centre of symmetry

Enstatite

(b) Calsbad twinning- twin axis-[001]

Baveno twinning- twin plane-(021)

39.

40.

41.

(a) A- non conformity, B- angular unconformity, C- disconformity

(b) 5

4

3

2

1 ↑

42.

(a) Zone of oxidation, Zone of supergene enrichment, Primary zone

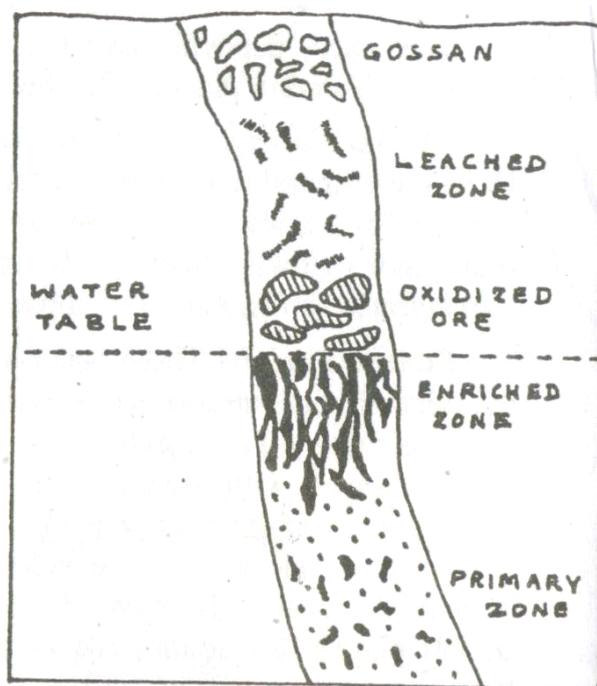


Fig. 9.14. Oxidation and supergene enrichment deposits.

(b) Precambrian

BHJ, BHQ

43.

(a) Subduction zone -The zones where one plate subducts beneath the another plate is called subduction zone.

Oceanic ridges-The elongated sub marine mountain ranges which are formed the divergent plate boundary is called Oceanic ridges.

Transform fault- It is a strike slip fault which formed due to the lateral sliding of plates.

(b) Main boundary thrust \uparrow S

Krol thrust

Jutogh thrust

Main central thrust \uparrow N

44.

(a) Neso silicate- Olivine

Sorosilicate- Lawsonite

Cyclo/ Ring silicate- Beryl

Ino silicate-(i) Single chain – Pyroxene

(ii) Double chain- Amphibole

Phylo silicate – Mica

Tecto silicate - Quartz

(b) Magnetite – Fe_3O_4

Mayurbhanj, Odisha

Singhbhum, Jharkhand