2012-A

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

31.

(a) (i)

32.

 (a) (i)The optic sign is negative

   (ii)The R.I of mineral corresponding to E-ray is 1.54

   (iii) the birefringes of mineral is 0.01

(b) (i)the optical indicatrix of Garnet is spheroid.

   (ii)

DIOPSIDE	HORNBLENDE
2 set prismatic cleavage at an angle 87* & 93*	2 set prismatic clravage at an angle 56*&124*
Optic sign- Biaxial(+)	Optic sign- Biaxial(-)
Extinction angle 45*	Extinction angle<10*

33.

(a) (i)Bulk rock composition X Metabasites.

   (ii) A= Greenschist facies

      B=Amhibolite facies

      C=Granulite facies

(b) (i)pelite corresponding to metamorphic condition in region- C is

Garnet+Cordierite+Silimanite+orthoclase+Quartz

(ii)   The metamorphic facies series is Regional metamorphism

34.

(a) (i)

bhuj
umia
katrol
chari
patcham

(ii)Chari Formation contain oolitic limestone.

(iii)umia plant bed belongs to Bhuj formation.

(b) (i) Barail formation

 (ii)syllhet limestone

(ii)fig-A   indicates final cristallization at point y.

 (b) (i) we know, f=3-p

    So   f=3-3=0 is the variance at point X

  (ii)ITS PETROLOGICAL NAME IS PERITECTIC.

35.

(a) (i)

| Erinpura granite |
| --- |
| Delhi supergroup |
| Raialo Group |
| Aravali Supergroup |
| Banded gnessic complexof southern Rajsthan |

(ii)

(b)the acid volcanic stratigraphic unit corresponding to Nandgaon group is-Bijli Rhyolite

  Mafic volcanic is -Pitepani volcanic

36.

(b) (i)The phenomenon of dividing & reuniting of river channel due to high suspension load is known as braided river..

Diagram:

[BRAIDED RIVER]
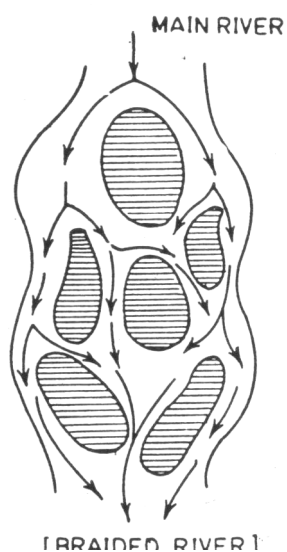
  (ii)condition:

-due to increase in load in river

-evaporation of water

37.

(a) (i)mode of failure of Y is due to plastic deformation.

(ii)region "m" represent elastic limit &region 'n' represent plastic limit

(iii)p= elastic limit

q= ultimate strength

r = rupture point

(b) we know Q=K.A dh/dl

So here Q=100/10=10ML/MIN

SO 10=K.25.5/15

K=150/125=1.25CM/min

38.

(b)

Desmodonta (*Mya*)   Heterodonta(*Cyrena*)

39.

(a) (i) the characteristics minerals found in Bauxite is Bohemite & Gibbsite.

(ii)k-feldspar in granite predominantly contributes Al to Bauxite.

(iii)The climatic condition for formation of Bauxite is Tropical to subtropical.

(b) (i) The diamondiferous igneous rock is kimberlite.

(ii) in Vundhyan basin diamond found at Panna.

40.

(a) (i)The 4 basic allochemical constituent of limestone are

| Intraclasts |
| oolites |
| fossil |
| pellets |

The orthochemical constituents of limestone are

| micrites |
| Sparites |

    (ii)Grainstone--->Packstone--▢Wackestone-▢mudstone

These are arranged in order of decreasing depositional energy..

(b) (i)textural maturity of sandstone reflects roundness,sphericity, sorting of grains.

   (ii)Orthoquartzite is a sandstone which is both texturally & minerallogically mature

41.

(a) (i)in sulfur crystal

    For face' A" the miller indices is (111)

    Let the wesis parameter is a,b,c

   The face intersect the 3 mutual perpendicular crystallographic axis at 4,5,10

   =>a/4=1, b/5=1,   c/10=1

   =>a=4 ,b=5, c=10

   For face B

   IT CUTS Axis at 12,15,10 distances

   Then the wesis parameter is (12/4, 15/5, 10/10)

    =>wesis parameter is=(3,3,1)

   Miller indices=1/wesis parameter

   =>M.I=(1/3,1/3,1/3)

   =>M.I=3(1/3,1/3,1)

SO THE M.I IS (1,1,3) FOR B FACE..

(b) (i)The symbol of dodecahedron is(1,1,0)

(ii)there is 12 face present.

42.

(a) (i)fig-p...>gently plunging synform

Fig-q....>reclined fold

Fig-r....>recumbent fold

(b) (i)

VERTCAL FOLD	UPRIGHT FOLD
Here axis is vertical	Here axial plane is vertical
Diagram:	Diagram:

(II)The fold having axial plane is a planer surface & hinge line is curved.
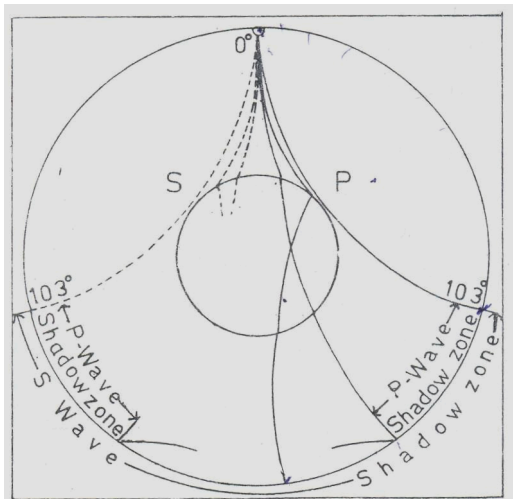
Diagram;

43.(b)

Fig.. 30.18 Shadow zones

44.(a) (i)X-Y---→Reverse fault

(ii)C-D--→Normal fault

(iii)

(b) P-Q-R-S-T-U---→Nonconformity

M-N--------→Angular unconformity