Q1/ Fill the blank in the following statements with a proper word(s): (30 marks)

1- The …………...................…………… matter is used to grinding.

2- Embry and Klovan (1972) classified coarse-grained (>2mm) skeletal grains into………………………. and ………………………... rocks.

3- Wadells rule for rounding is ....

4- Folk classification is based on …………….....................………. but Dunham classification is based on………………….............

5- write three types of vectorial sedimentary structures...................................., ..., ...

6- Draw palaeocurrent direction for trough cross-bed towards 175

Q2/ Correct the false statement(s):   **(Do not change underline words and the auxiliary verbs)   (16 marks)**
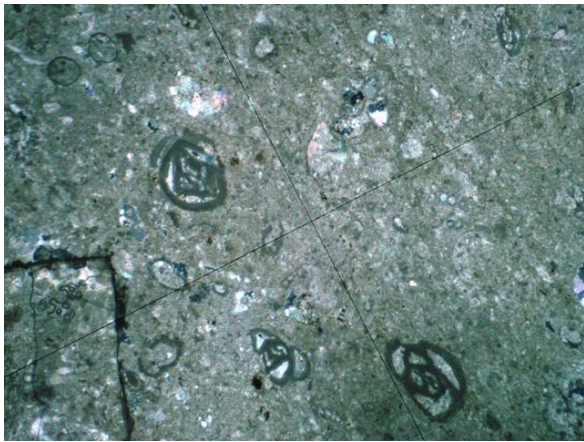
A- Rudistone in carbonate rocks **is** equivalent in size to conglomerate in clastic rock (   )

B- In modified Dunham scheme subdivision of boundstone **is not** existed. (   )

C- **Systematic** rock sampling **is** for those places **has** thin and uniform succession ( )
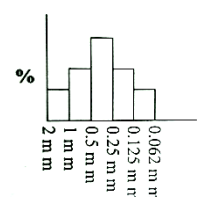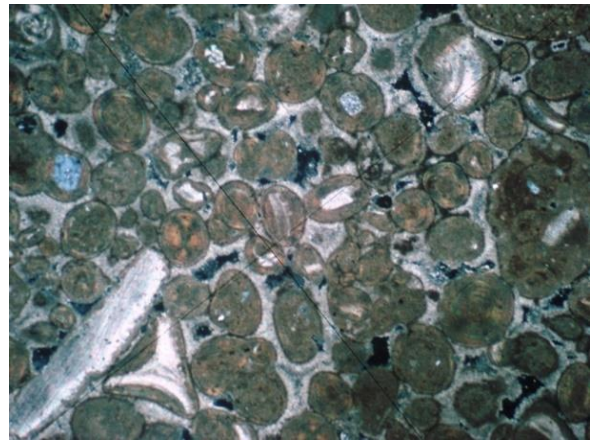
D- This histogram **represents** polymodal graphical presentation (......)
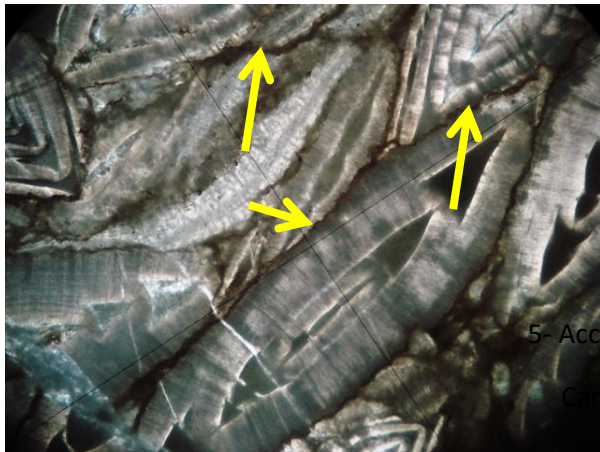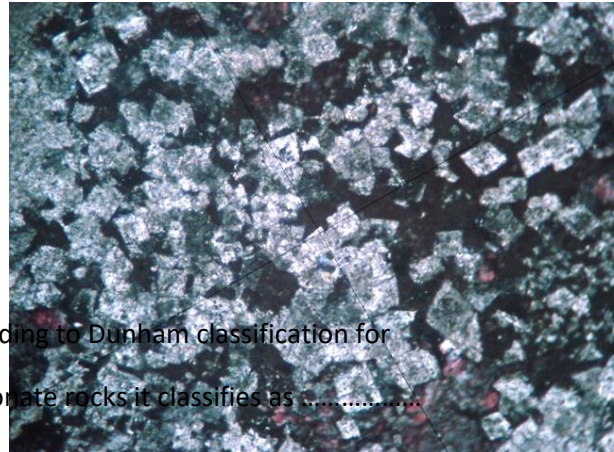
Q3/ Answer the following: (12 marks)

According to Dunham classification for

Carbonate rocks it classifies as ……………….....

According to Folk classification for carbonate

rocks it classifies as ……………………………………

This diagenetic process (yellow arrow) in carbonate rock is ……………………………………....

5- According to Dunham classification for

Carbonate rocks it classifies as …………….....

This diagenetic process in carbonate rock is ……………………………………………….

Q4/ Construct a pie diagram representing the following lithologies: -(12 Marks)

Limestone 30, Sandstone 18, Shale 15, Igneous rocks 12, and Siltstone 8

Q5/   **(30 marks)**

i. Draw a histogram, frequency curve and cumulative frequency curve for the
   following grain size analysis.
ii. Find all the statistical parameters (Mo, Md, Mz, **δ**, Sk, and KG).

Φ	Wt.gr
-2 – -1	0.20
-1 – 0	1.80
0 – 1	57.20

1 − 2	39.10
2 − 3	0.41
3 − 4	0.10
4 − 5	0.00