

Bachelor of Science (B.Sc.) Third Semester (Old Course)
B.Sc.23101 – Geology : Paper – I (Igneous petrology)

P. Pages : 1

Time : Three Hours



GUG/W/18/1266

Max. Marks : 50

- Notes : 1. All questions are compulsory and carry equal marks.
2. Draw neat sketches wherever necessary.

1. Describe with neat sketches concordant forms of Igneous rocks.

OR

Describe mineralogical characters of basic and ultrabasic igneous rocks.

2. Give an account of Bowen's reaction series.

OR

Describe the process of crystallization of unicomponent magma.

3. Describe the following:-

- | | |
|-------------------------------|------------------------|
| a) Rock cycle | b) Porphyritic texture |
| c) Fractional crystallization | d) Phase equilibria |

OR

Describe the following:-

- | | |
|------------------------------|------------------------|
| e) Blocky Lava and Ropy Lava | f) CIPW classification |
| g) Filter pressing | h) Mixed crystals |

4. Write brief notes on the following :

- | | |
|-----------------|-----------------------------|
| a) Batholiths | b) Directive textures |
| c) Hybrid rocks | d) Non mixing constituents. |

OR

Write brief notes on the following :-

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|-----------------------|-----------------------|
| e) Columnar structure | f) Pegmatite |
| g) Assimilation | h) Chemical potential |

5. Write on the following in not more than two sentences **any ten:-**

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|-------------------------|--------------------------|
| a) Petrology | b) Pillow Lava |
| c) Platy structure | d) Holocrystalline rocks |
| e) Salic minerals | f) Holohyaline rocks |
| g) Magma | h) Pyrogenetic minerals |
| i) Gaseous transfer | j) Concept of phase |
| k) Concept of Component | l) Concept of System |
