Total No. of Questions : 5]

SEAT No : ____

P379

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[5115]-11
F.Y.B.Sc
GEOLOGY
Mineralogy and Petrology
(2013 Course)(Paper - I)

Time : 3 Hours] ***[Max. Marks : 80***

Instructions to the candidates:

1) ***All questions are compulsory.***
2) ***Draw neat labelled diagrams wherever necessary.***
3) ***Figures to the right indicates full marks.***

Q1) Answer the following questions. **[16]**

a) Define sublimation process.

b) Define the term faces and form.

c) Define Petrology and Petrography.

d) Define the forms - Dome and Pyramid.

e) Define magma and lava.

f) State the names of metallic minerals formed by magmatic crystallisation.

g) Give the systematic classification of igneous rocks based on colour.

h) Define Columnar joints.

Q2) Answer the following questions (Any four): **[16]**

a) Explain measurement of Interfacial angle.

b) Explain Clastic and Non clastic textures.

c) Describe Isomorphism and Polymorphism.

d) Describe the Graded bedding and Current bedding.

e) Describe the Covalent and Ionic bonds.

f) Describe the types of unconformities.

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Q3) Answer the following questions (Any Four) : **[16]**

a) Give the list of minerals used in following industries.

i) Ceramic

ii) Glass

iii) Cement

iv) Paint

b) Define texture. State the factors controlling textures of igneous rocks.

c) Describe the term isotropism and anisotropism.

d) Describe the following terms with neat diagrams

i) Normal fault

ii) Reverse fault.

e) Give the major elements constituting minerals.

f) Describe the following rocks

i) Marble

ii) Quartzite

Q4) Answer the following questions (Any Two) : **[16]**

a) Define Mineralogy. Give its branches. Add a note on its importance.

b) Give the elements of symmetry, crystallographic axes and forms present with indices of Tetragonal system (Zircon Type).

c) Define fold. Describe the various parts of fold with neat labelled diagram.

d) Describe how sedimentary rocks are formed ? Describe conglomerate, Breccia and laterite rocks.

Q5) Describe the physical properties of the mineral. **[16]**

OR

a) Describe rock cycle. **[8]**

b) Define Metamorphism. Give its agent and describe various kinds of metamorphism. **[8]**

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