## **Model Paper Geology Objective**

## Intermediate Part – I (11<sup>th</sup> Class) Examination Session 2012-2013 and onward

Total marks: 17 Paper Code\_\_\_\_\_ Time Allowed: 20 minutes

Note:- You have four choices for each objective type question as A, B, C and D. The choice which you think is correct; fill that circle in front of that question number. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero mark in that question.

| Q<br>No.1 | Question                             | A                              | В                              | C                              | D                              |  |
|-----------|--------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--|
| 1         | Water expands on                     | Boiling                        | Freezing                       | Heating                        | None                           |  |
| 2         | $H_2O + CO_2 \rightarrow$            | H <sub>3</sub> CO <sub>3</sub> | HC <sub>3</sub> O <sub>3</sub> | H <sub>2</sub> CO <sub>3</sub> | H <sub>3</sub> CO <sub>2</sub> |  |
| 3         | Lime stone is metamorphosed into     | Chalk                          | Dolomite                       | Quartzite                      | Marble                         |  |
| 4         | Argillaceous rocks composed of       | Sand                           | Pebbles                        | Clay                           | Carbon                         |  |
| 5         | Evaporated is a rock                 | Physical                       | Chemical                       | Organic                        | None                           |  |
| 6         | Silica components in basic rocks are | 66 %                           | 55-65 %                        | 45–55 %                        | Less than 45 %                 |  |
| 7         | Texture of volcanic rock             | Fine                           | Medium                         | Coarse                         | Pheno                          |  |
| 8         | Magma is a material                  | Gas                            | Solid                          | Molten                         | None                           |  |
| 9         | Ox-bow lake present in               | DB.                            | Base level                     | Meanders                       | Old age                        |  |
| 10        | Corrosion is a process               | Physical                       | Chemical                       | Deposition                     | Transportation                 |  |
| 11        | Peneplain is present in              | Youth                          | Mature                         | Old age                        | Erosion                        |  |
| 12        | Stalagmites are formed on            | Roof                           | Ceiling                        | Floor                          | Walls                          |  |
| 13        | Sink is a cavity                     | Close                          | Open                           | Both                           | None                           |  |
| 14        | Zone of aeration has belts           | 2                              | 3                              | 4                              | 5                              |  |
| 15        | Hardness of topaz                    | 6                              | 7                              | 8                              | 9                              |  |
| 16        | Planes of cube                       | 7                              | 8                              | 9                              | 13                             |  |
| 17        | Pyrite is ore of                     | Iron                           | Sulphur                        | Copper                         | Carbon                         |  |

## **Model Paper Geology Subjective**

### Intermediate Part - I (11th Class) Examination Session 2012-2013 and onward

Total marks: 83 Time: 3:10 hours

#### Section – I

## Q. No: - 2 Attempt any Eight short questions from the followings: $8\times2=16$

- (i) Define hydration.
- (ii) Explain crystal.
- (iii) Write Inter facial angle.
- (iv) What do you know about magma.
- (v) Write plutonic rocks.
- (vi) Elaborate acidic igneous rock.
- (vii) Uses of gypsum.
- (viii) Composition of magma.
- (ix) Explain batholith.
- (x) What do you know about magnetite.
- (xi) Write Extrusive Rocks.
- (xii) Differentiate between surface and ground water.

#### Q. No: - 3 Attempt any Eight short questions from the followings: 8×2=16

- (i)Write frost action.
- (ii) Define disintegration.
- (iii) Abrasion by stream.
- (iv) Explain bed load.
- (v) Define drainage basin.
- (vi) Write ultimate base level.
- (vii) Elaborate metamorphism.
- (viii) Differentiate between mineral and rock.
- (ix) Define porosity.
- (x) Write streak.
- (xi) Explain regional metamorphism.
- (xii) Importance of hydrological cycle.

| (ii) Briefly describe Arenaceous rock.  (iii) Define Meanders.  (iii) Write and draw rectangular pattern.  (iv) Explain mature stage of valley.  (v) Elaborate cavern.  (vi) Write Stalactites.  (vii) Define sedimentary rock.  (viii) Write cubic system.  (ix) Explain principal components of cement.  Section – II  Note: Attempt any three questions.  (b) Explain texture of metamorphic rocks.  Q. No: -5  (a) Write in detail discordant Ign. Rocks.  (b) Explain texture of metamorphic rocks.  Q. No: -6  (a) Elaborate two processes of physical weathering.  (b) Write organically formed sedimentary rocks.  Q. No: -7  (a) Briefly describe cycle of erosion.  (b) Write deposition of ground water.  Q. No: -8  (a) Explain oxidation and leaching.  (b) Write any two energy mineral resources in Pakistan.  Q. No: -9  (a) Discuss plane of symmetry and axis.  (b) Write and draw zone of aeration.  5×3=15  Q. No: -10  (a) Draw two topographic features.  3  (b) Write hardness of gypsum and apatite.  2  Q. No: -11  Define specific gravity. Write its formula.  Q. No: -12  Q. No: -13  Hardness of mineral from  3 — 7  Q. No: -14  Define topography. Draw a feature with contour values  1100, 1200, 1300, 1400, 1500 | Q. No: - 4 A   | ttempt any Six short questions from the followings:     | 6×2=12 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------------------------------------------|--------|
| (iii) Write and draw rectangular pattern. (iv) Explain mature stage of valley. (v) Elaborate cavern. (vi) Write Stalactites. (vii) Define sedimentary rock. (viii) Write cubic system. (ix) Explain principal components of cement.  **Section - II**  Note: Attempt any three questions.  Q. No: -5 (a) Write in detail discordant Ign. Rocks. (b) Explain texture of metamorphic rocks.  Q. No: -6 (a) Elaborate two processes of physical weathering. (b) Write organically formed sedimentary rocks.  Q. No: -7 (a) Briefly describe cycle of erosion. (b) Write deposition of ground water.  Q. No: -8 (a) Explain oxidation and leaching. (b) Write any two energy mineral resources in Pakistan.  Q. No: -9 (a) Discuss plane of symmetry and axis. (b) Write and draw zone of aeration.  **Section - III** (Practical)**  Note: Attempt any three Question.  \$ \$x3=15 \]  Note: Attempt any three Question.  \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$                                                                                                                                                                                                                                                                    | (i) Briefly de | escribe Arenaceous rock.                                |        |
| (iv) Explain mature stage of valley. (v) Elaborate cavern. (vi) Write Stalactites. (vii) Define sedimentary rock. (viii) Write cubic system. (ix) Explain principal components of cement.  Section – II  Note: Attempt any three questions.  Q. No: -5 (a) Write in detail discordant Ign. Rocks. (b) Explain texture of metamorphic rocks.  Q. No: -6 (a) Elaborate two processes of physical weathering. (b) Write organically formed sedimentary rocks.  Q. No: -7 (a) Briefly describe cycle of erosion. (b) Write deposition of ground water.  Q. No: -8 (a) Explain oxidation and leaching. (b) Write any two energy mineral resources in Pakistan.  Q. No: -9 (a) Discuss plane of symmetry and axis. (b) Write and draw zone of aeration.  Section – III (Practical)  Note: Attempt any three Question.  Section – III (Practical)  Note: Attempt any three Question.  5×3=15  Q. No: -10 (a) Draw two topographic features. 3 (b) Write hardness of gypsum and apatite. 2  Q. No: -11 Define specific gravity. Write its formula.  Q. No: -12 Wa = 250 gms Ww = 150 gms Calculate S. G.  Q. No: -13 Hardness of mineral from 3 – 7  Q. No: -14 Define topography. Draw a feature with contour values                                      | (ii) Define M  | leanders.                                               |        |
| (v) Elaborate cavern. (vi) Write Stalactites. (vii) Define sedimentary rock. (viii) Write cubic system. (ix) Explain principal components of cement.  Section – II  Note: Attempt any three questions.  Q. No: - 5 (a) Write in detail discordant Ign. Rocks. (b) Explain texture of metamorphic rocks.  Q. No: - 6 (a) Elaborate two processes of physical weathering. (b) Write organically formed sedimentary rocks.  Q. No: - 7 (a) Briefly describe cycle of erosion. (b) Write deposition of ground water.  Q. No: - 8 (a) Explain oxidation and leaching. (b) Write any two energy mineral resources in Pakistan.  Q. No: - 9 (a) Discuss plane of symmetry and axis. (b) Write and draw zone of aeration.  Section – III (Practical)  Note: Attempt any three Question.  Section – III (Practical)  Note: Attempt any three Question.  Section – III (Practical)  Note: Attempt any three Question.  Q. No: - 10 (a) Draw two topographic features. 3 (b) Write hardness of gypsum and apatite. 2 Q. No: - 11 Define specific gravity. Write its formula. Q. No: - 12 Wa = 250 gms  Ww = 150 gms Calculate S. G. Q. No: - 13 Hardness of mineral from  3 – 7 Q. No: - 14 Define topography. Draw a feature with contour values             | (iii) Write an | nd draw rectangular pattern.                            |        |
| (vi) Write Stalactites. (vii) Define sedimentary rock. (viii) Write cubic system. (ix) Explain principal components of cement.  Section – II  Note: Attempt any three questions.  Q. No: -5 (a) Write in detail discordant Ign. Rocks. (b) Explain texture of metamorphic rocks.  Q. No: -6 (a) Elaborate two processes of physical weathering. (b) Write organically formed sedimentary rocks.  Q. No: -7 (a) Briefly describe cycle of erosion. (b) Write deposition of ground water.  Q. No: -8 (a) Explain oxidation and leaching. (b) Write any two energy mineral resources in Pakistan.  Q. No: -9 (a) Discuss plane of symmetry and axis. (b) Write and draw zone of aeration.  Section – III (Practical)  Note: Attempt any three Question.  Q. No: -10 (a) Draw two topographic features. 3 (b) Write hardness of gypsum and apatite. 2 Q. No: -11 Define specific gravity. Write its formula. Q. No: -12 Wa = 250 gms Ww = 150 gms Calculate S. G. Q. No: -13 Hardness of mineral from 3 – 7 Q. No: -14 Define topography. Draw a feature with contour values                                                                                                                                                                           | (iv) Explain   | mature stage of valley.                                 |        |
| (viii) Write cubic system.  (ix) Explain principal components of cement.  Section – II  Note: Attempt any three questions.  Q. No: -5 (a) Write in detail discordant Ign. Rocks. (b) Explain texture of metamorphic rocks.  Q. No: -6 (a) Elaborate two processes of physical weathering. (b) Write organically formed sedimentary rocks.  Q. No: -7 (a) Briefly describe cycle of erosion. (b) Write deposition of ground water.  Q. No: -8 (a) Explain oxidation and leaching. (b) Write any two energy mineral resources in Pakistan.  Q. No: -9 (a) Discuss plane of symmetry and axis. (b) Write and draw zone of aeration.  Section – III (Practical)  Note: Attempt any three Question.  Q. No: -10 (a) Draw two topographic features. 3 (b) Write hardness of gypsum and apatite. 2 Q. No: -11 Define specific gravity. Write its formula. Q. No: -12 Wa = 250 gms Ww = 150 gms Calculate S. G. Q. No: -13 Hardness of mineral from 3 – 7 Q. No: -14 Define topography. Draw a feature with contour values                                                                                                                                                                                                                                 | (v) Elaborate  | e cavern.                                               |        |
| (viii) Write cubic system.  (ix) Explain principal components of cement.  Section — II  Note: Attempt any three questions.  Q. No: -5 (a) Write in detail discordant Ign. Rocks.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | (vi) Write St  | alactites.                                              |        |
| Section — II  Note: Attempt any three questions.  Q. No: -5  (a) Write in detail discordant Ign. Rocks. (b) Explain texture of metamorphic rocks.  Q. No: -6  (a) Elaborate two processes of physical weathering. (b) Write organically formed sedimentary rocks.  Q. No: -7  (a) Briefly describe cycle of erosion. (b) Write deposition of ground water.  Q. No: -8  (a) Explain oxidation and leaching. (b) Write any two energy mineral resources in Pakistan.  Q. No: -9  (a) Discuss plane of symmetry and axis. (b) Write and draw zone of aeration.  Section — III  (Practical)  Note: Attempt any three Question.  (b) Write hardness of gypsum and apatite.  Q. No: -10  (a) Draw two topographic features. (b) Write hardness of gypsum and apatite.  Q. No: -11  Define specific gravity. Write its formula.  Q. No: -12  Wa = 250 gms  Ww = 150 gms  Calculate S. G.  Q. No: -13  Hardness of mineral from  3 — 7  Q. No: -14  Define topography. Draw a feature with contour values                                                                                                                                                                                                                                                  | (vii) Define   | sedimentary rock.                                       |        |
| Note: Attempt any three questions.  Q. No: -5 (a) Write in detail discordant Ign. Rocks. (b) Explain texture of metamorphic rocks.  Q. No: -6 (a) Elaborate two processes of physical weathering. (b) Write organically formed sedimentary rocks.  Q. No: -7 (a) Briefly describe cycle of erosion. (b) Write deposition of ground water.  Q. No: -8 (a) Explain oxidation and leaching. (b) Write any two energy mineral resources in Pakistan.  Q. No: -9 (a) Discuss plane of symmetry and axis. (b) Write and draw zone of aeration.  Section – III (Practical)  Note: Attempt any three Question.  Q. No: -10 (a) Draw two topographic features. (b) Write hardness of gypsum and apatite.  Q. No: -11 Define specific gravity. Write its formula.  Q. No: -12 Wa = 250 gms Ww = 150 gms Calculate S. G.  Q. No: -13 Hardness of mineral from 3 – 7 Q. No: -14 Define topography. Draw a feature with contour values                                                                                                                                                                                                                                                                                                                          | (viii) Write   | cubic system.                                           |        |
| Note: Attempt any three questions.  Q. No: - 5 (a) Write in detail discordant Ign. Rocks. (b) Explain texture of metamorphic rocks.  Q. No: - 6 (a) Elaborate two processes of physical weathering. (b) Write organically formed sedimentary rocks.  Q. No: - 7 (a) Briefly describe cycle of erosion. (b) Write deposition of ground water.  Q. No: - 8 (a) Explain oxidation and leaching. (b) Write any two energy mineral resources in Pakistan.  Q. No: - 9 (a) Discuss plane of symmetry and axis. (b) Write and draw zone of aeration.  Section – III (Practical)  Note: Attempt any three Question.  Q. No: - 10 (a) Draw two topographic features. 3 (b) Write hardness of gypsum and apatite. 2 Q. No: - 11 Define specific gravity. Write its formula.  Q. No: - 12 Wa = 250 gms Ww = 150 gms Calculate S. G.  Q. No: - 13 Hardness of mineral from 3 – 7 Q. No: - 14 Define topography. Draw a feature with contour values                                                                                                                                                                                                                                                                                                             | (ix) Explain   | principal components of cement.                         |        |
| Note: Attempt any three questions.  Q. No: - 5 (a) Write in detail discordant Ign. Rocks. (b) Explain texture of metamorphic rocks.  Q. No: - 6 (a) Elaborate two processes of physical weathering. (b) Write organically formed sedimentary rocks.  Q. No: - 7 (a) Briefly describe cycle of erosion. (b) Write deposition of ground water.  Q. No: - 8 (a) Explain oxidation and leaching. (b) Write any two energy mineral resources in Pakistan.  Q. No: - 9 (a) Discuss plane of symmetry and axis. (b) Write and draw zone of aeration.  Section – III (Practical)  Note: Attempt any three Question.  Q. No: - 10 (a) Draw two topographic features. 3 (b) Write hardness of gypsum and apatite. 2 Q. No: - 11 Define specific gravity. Write its formula.  Q. No: - 12 Wa = 250 gms Ww = 150 gms Calculate S. G.  Q. No: - 13 Hardness of mineral from 3 – 7 Q. No: - 14 Define topography. Draw a feature with contour values                                                                                                                                                                                                                                                                                                             |                |                                                         |        |
| Q. No: - 5  (a) Write in detail discordant Ign. Rocks. (b) Explain texture of metamorphic rocks.  Q. No: - 6  (a) Elaborate two processes of physical weathering. (b) Write organically formed sedimentary rocks.  Q. No: - 7  (a) Briefly describe cycle of erosion. (b) Write deposition of ground water.  Q. No: - 8  (a) Explain oxidation and leaching. (b) Write any two energy mineral resources in Pakistan.  Q. No: - 9  (a) Discuss plane of symmetry and axis. (b) Write and draw zone of aeration.  Section – III  (Practical)  Note: Attempt any three Question.  5×3=15  Q. No: - 10  (a) Draw two topographic features. (b) Write hardness of gypsum and apatite.  Q. No: - 11  Define specific gravity. Write its formula.  Q. No: - 12  Wa = 250 gms  Ww = 150 gms  Calculate S. G.  Q. No: - 13  Hardness of mineral from  3 - 7  Q. No: - 14  Define topography. Draw a feature with contour values                                                                                                                                                                                                                                                                                                                             |                |                                                         |        |
| (b) Explain texture of metamorphic rocks.  Q. No: -6  (a) Elaborate two processes of physical weathering. (b) Write organically formed sedimentary rocks.  Q. No: -7  (a) Briefly describe cycle of erosion. (b) Write deposition of ground water.  Q. No: -8  (a) Explain oxidation and leaching. (b) Write any two energy mineral resources in Pakistan.  Q. No: -9  (a) Discuss plane of symmetry and axis. (b) Write and draw zone of aeration.  Section – III  (Practical)  Note: Attempt any three Question.  5×3=15  Q. No: -10  (a) Draw two topographic features. 3 (b) Write hardness of gypsum and apatite. 2  Q. No: -11  Define specific gravity. Write its formula.  Q. No: -12  Wa = 250 gms  Ww = 150 gms  Calculate S. G.  Q. No: -13  Hardness of mineral from  3 - 7  Q. No: -14  Define topography. Draw a feature with contour values                                                                                                                                                                                                                                                                                                                                                                                         |                |                                                         | 8×3=24 |
| Q. No: - 6 (a) Elaborate two processes of physical weathering. (b) Write organically formed sedimentary rocks.  Q. No: - 7 (a) Briefly describe cycle of erosion. (b) Write deposition of ground water.  Q. No: - 8 (a) Explain oxidation and leaching. (b) Write any two energy mineral resources in Pakistan.  Q. No: - 9 (a) Discuss plane of symmetry and axis. (b) Write and draw zone of aeration.  Section – III (Practical)  Note: Attempt any three Question.  5×3=15  Q. No: - 10 (a) Draw two topographic features. 3 (b) Write hardness of gypsum and apatite. 2  Q. No: - 11 Define specific gravity. Write its formula.  Q. No: - 12 Wa = 250 gms Ww = 150 gms Calculate S. G.  Q. No: - 13 Hardness of mineral from 3 – 7  Q. No: - 14 Define topography. Draw a feature with contour values                                                                                                                                                                                                                                                                                                                                                                                                                                        | Q. No: - 5     |                                                         |        |
| (b) Write organically formed sedimentary rocks.  Q. No: -7  (a) Briefly describe cycle of erosion. (b) Write deposition of ground water.  Q. No: -8  (a) Explain oxidation and leaching. (b) Write any two energy mineral resources in Pakistan.  Q. No: -9  (a) Discuss plane of symmetry and axis. (b) Write and draw zone of aeration.  Section – III (Practical)  Note: Attempt any three Question.  5×3=15  Q. No: -10  (a) Draw two topographic features. 3 (b) Write hardness of gypsum and apatite. 2  Q. No: -11 Define specific gravity. Write its formula.  Q. No: -12 Wa = 250 gms  Ww = 150 gms  Calculate S. G.  Q. No: -13 Hardness of mineral from  3 – 7  Q. No: -14 Define topography. Draw a feature with contour values                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                |                                                         |        |
| Q. No: -7  (a) Briefly describe cycle of erosion. (b) Write deposition of ground water.  Q. No: -8  (a) Explain oxidation and leaching. (b) Write any two energy mineral resources in Pakistan.  Q. No: -9  (a) Discuss plane of symmetry and axis. (b) Write and draw zone of aeration.  Section – III (Practical)  Note: Attempt any three Question.  5×3=15  Q. No: -10  (a) Draw two topographic features. (b) Write hardness of gypsum and apatite.  Q. No: -11 Define specific gravity. Write its formula.  Q. No: -12 Wa = 250 gms  Ww = 150 gms  Calculate S. G.  Q. No: -13 Hardness of mineral from  3 – 7  Q. No: -14 Define topography. Draw a feature with contour values                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Q. No: - 6     |                                                         |        |
| (b) Write deposition of ground water.  Q. No: -8  (a) Explain oxidation and leaching. (b) Write any two energy mineral resources in Pakistan.  Q. No: -9  (a) Discuss plane of symmetry and axis. (b) Write and draw zone of aeration.  Section – III (Practical)  Note: Attempt any three Question.  Q. No: -10  (a) Draw two topographic features. 3 (b) Write hardness of gypsum and apatite. 2  Q. No: -11 Define specific gravity. Write its formula.  Q. No: -12 Wa = 250 gms  Ww = 150 gms  Calculate S. G.  Q. No: -13 Hardness of mineral from  3 - 7  Q. No: -14 Define topography. Draw a feature with contour values                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |                                                         |        |
| Q. No: -8 (a) Explain oxidation and leaching. (b) Write any two energy mineral resources in Pakistan.  Q. No: -9 (a) Discuss plane of symmetry and axis. (b) Write and draw zone of aeration.  Section – III (Practical)  Note: Attempt any three Question.  Q. No: -10 (a) Draw two topographic features. 3 (b) Write hardness of gypsum and apatite. 2 Q. No: -11 Define specific gravity. Write its formula.  Q. No: -12 Wa = 250 gms Ww = 150 gms Calculate S. G.  Q. No: -13 Hardness of mineral from 3 – 7  Q. No: -14 Define topography. Draw a feature with contour values                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Q. No: - 7     |                                                         |        |
| (b) Write any two energy mineral resources in Pakistan.  Q. No: -9  (a) Discuss plane of symmetry and axis. (b) Write and draw zone of aeration.  Section – III (Practical)  Note: Attempt any three Question.  Q. No: -10  (a) Draw two topographic features. 3 (b) Write hardness of gypsum and apatite. 2  Q. No: -11 Define specific gravity. Write its formula.  Q. No: -12 Wa = 250 gms  Ww = 150 gms  Calculate S. G.  Q. No: -13 Hardness of mineral from  3 - 7  Q. No: -14 Define topography. Draw a feature with contour values                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                | (b) Write deposition of ground water.                   |        |
| Q. No: -9 (a) Discuss plane of symmetry and axis. (b) Write and draw zone of aeration.  Section – III (Practical)  Note: Attempt any three Question.  Q. No: -10 (a) Draw two topographic features. (b) Write hardness of gypsum and apatite.  Q. No: -11 Define specific gravity. Write its formula.  Q. No: -12 Wa = 250 gms  Ww = 150 gms  Calculate S. G.  Q. No: -13 Hardness of mineral from  3 – 7  Q. No: -14 Define topography. Draw a feature with contour values                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Q. No: - 8     | (a) Explain oxidation and leaching.                     |        |
| Section – III (Practical)  Note: Attempt any three Question.  Q. No: -10 (a) Draw two topographic features. (b) Write hardness of gypsum and apatite.  Q. No: -11 Define specific gravity. Write its formula.  Q. No: -12 Wa = 250 gms  Ww = 150 gms  Calculate S. G.  Q. No: -13 Hardness of mineral from  3-7  Q. No: -14 Define topography. Draw a feature with contour values                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                | (b) Write any two energy mineral resources in Pakistan. |        |
| Section – III (Practical)  Note: Attempt any three Question.  Q. No: -10 (a) Draw two topographic features.  (b) Write hardness of gypsum and apatite.  Q. No: -11 Define specific gravity. Write its formula.  Q. No: -12 Wa = 250 gms  Ww = 150 gms  Calculate S. G.  Q. No: -13 Hardness of mineral from  3 – 7  Q. No: -14 Define topography. Draw a feature with contour values                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Q. No: - 9     | (a) Discuss plane of symmetry and axis.                 |        |
| Note: Attempt any three Question.  Q. No: - 10 (a) Draw two topographic features. (b) Write hardness of gypsum and apatite.  Q. No: - 11 Define specific gravity. Write its formula.  Q. No: - 12 Wa = 250 gms Ww = 150 gms Calculate S. G.  Q. No: - 13 Hardness of mineral from 3 - 7  Q. No: - 14 Define topography. Draw a feature with contour values                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                | (b) Write and draw zone of aeration.                    |        |
| Q. No: - 10  (a) Draw two topographic features.  (b) Write hardness of gypsum and apatite.  Q. No: - 11  Define specific gravity. Write its formula.  Q. No: - 12  Wa = 250 gms  Ww = 150 gms  Calculate S. G.  Q. No: - 13  Hardness of mineral from  3 - 7  Q. No: - 14  Define topography. Draw a feature with contour values                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |                                                         |        |
| (b) Write hardness of gypsum and apatite. 2  Q. No: - 11 Define specific gravity. Write its formula.  Q. No: - 12 Wa = 250 gms  Ww = 150 gms  Calculate S. G.  Q. No: - 13 Hardness of mineral from  3-7  Q. No: - 14 Define topography. Draw a feature with contour values                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                |                                                         | 5×3=15 |
| Q. No: - 11 Define specific gravity. Write its formula.  Q. No: - 12 Wa = 250 gms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Q. No: - 10    |                                                         |        |
| Q. No: - 12 Wa = 250 gms  Ww = 150 gms  Calculate S. G.  Q. No: - 13 Hardness of mineral from  3-7  Q. No: - 14 Define topography. Draw a feature with contour values                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | O. M           |                                                         |        |
| Ww = 150 gms Calculate S. G.  Q. No: - 13 Hardness of mineral from 3 - 7  Q. No: - 14 Define topography. Draw a feature with contour values                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | _              |                                                         |        |
| Calculate S. G.  Q. No: - 13 Hardness of mineral from  3 - 7  Q. No: - 14 Define topography. Draw a feature with contour values                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Q. No: - 12    |                                                         |        |
| Q. No: - 13 Hardness of mineral from 3 - 7  Q. No: - 14 Define topography. Draw a feature with contour values                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                | · ·                                                     |        |
| 3-7 Q. No: - 14 Define topography. Draw a feature with contour values                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 0 M 10         |                                                         |        |
| Q. No: - 14 Define topography. Draw a feature with contour values                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Q. No: - 13    |                                                         |        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | O M 44         |                                                         |        |
| 1100, 1200, 1300, 1400, 1500                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Q. No: - 14    |                                                         |        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                | 1100, 1200, 1300, 1400, 1500                            |        |

# **Assessment Scheme**

For Geology 11<sup>th</sup> Part I Session 2012-13 & ONWARD Time:3:30 hrs Total Marks:- 100

|        | Chapters Name          | Weightage | Distribution<br>of Marks | M.C.Qs  Allotted Marks 17                               |     |     | Short Answer Questions  Allotted Marks 44  Q. to be asked 33 Q. to be attempted 22 |    |   |   | Essay Type Questions  Allotted Marks 24  Q. to be asked 5 Q. to be attempted 3  Time 3 Hours & 10 Minutes |     |                |   | Questions relating to<br>Practicals   |                          |
|--------|------------------------|-----------|--------------------------|---------------------------------------------------------|-----|-----|------------------------------------------------------------------------------------|----|---|---|-----------------------------------------------------------------------------------------------------------|-----|----------------|---|---------------------------------------|--------------------------|
|        |                        |           |                          |                                                         |     |     |                                                                                    |    |   |   |                                                                                                           |     |                |   | Allotted Marks 15                     |                          |
| Sr. No |                        |           |                          | Q. to be asked 17 Q. to be attempted 17 Time 20 Minutes |     |     |                                                                                    |    |   |   |                                                                                                           |     |                |   | Q. to be asked 5 Q. to be attempted 3 |                          |
|        |                        |           |                          |                                                         |     |     |                                                                                    |    |   |   |                                                                                                           |     |                |   |                                       |                          |
|        |                        |           |                          | K                                                       | U   | A   | Total<br>Marks                                                                     | K  | U | A | Total<br>Marks                                                                                            | K   | $oldsymbol{U}$ | A | Total Marks                           |                          |
| 1      | Physical<br>Weathering | 7 %       | 9                        | 1                                                       | -   | -   | 1                                                                                  | 2  | - | 1 | 4                                                                                                         | 1   | -              | - | 4                                     |                          |
| 2      | Chemical<br>Weathering | 6 %       | 7                        | 1                                                       | -   | -   | 1                                                                                  | 1  | - | - | 2                                                                                                         | -   | 1              | - | 4                                     | Question No.10=5 marks   |
| 3      | Streams                | 7 %       | 9                        | 1                                                       | -   |     | 1                                                                                  | 2  | 1 | 1 | 8                                                                                                         | -   | -              | - | -                                     | Question 100.10–3 marks  |
| 4      | Stream Erosion         | 10 %      | 12                       | 1                                                       | 1   | -   | 2                                                                                  | _1 | 1 | 1 | 6                                                                                                         | -   | 1              | - | 4                                     | Question No.11=5 marks   |
| 5      | Ground Water I         | 7 %       | 9                        | 1                                                       | -   | -   | 1                                                                                  | 1  | - | 1 | 4                                                                                                         | 1   | -              | - | 4                                     |                          |
| 6      | Ground Water II        | 8 %       | 10                       | 1                                                       | -   | 1   | 2                                                                                  | 1  | 1 | - | 4                                                                                                         | 1   | -              | - | 4                                     | Question No.12 = 5 marks |
| 7      | Crystallography        | 6 %       | 7                        | 1                                                       | -   |     | 1                                                                                  | 1  | 1 | 1 | 6                                                                                                         | -   | -              | - | -                                     |                          |
| 8      | Symmetry               | 7 %       | 9                        | 1                                                       | -   | 5-7 | 1                                                                                  | -  | 1 | 1 | 4                                                                                                         | 1   | -              | - | 4                                     | Question No.13 =5 marks  |
| 9      | Minerals               | 6 %       | 7                        | 1                                                       | (-) | -   | 1                                                                                  | 1  | - | 1 | 4                                                                                                         | 1/2 | -              | - | 2                                     |                          |
| 10     | Eco Minerals           | 5 %       | 6                        |                                                         |     | -   | -                                                                                  | 1  | 1 | - | 4                                                                                                         | 1/2 | -              | - | 2                                     | Question No.14 = 5 marks |
| 11     | Magma                  | 6 %       | 7                        | 1                                                       | -   | -   | 1                                                                                  | 1  | 1 | 1 | 6                                                                                                         | -   | -              | - | -                                     |                          |
| 12     | Igneous Rocks          | 10 %      | 12                       | 1                                                       | 1   | -   | 2                                                                                  | 2  | 1 | - | 6                                                                                                         | 1   | -              | - | 4                                     |                          |
| 13     | Metamorphic<br>Rocks   | 7 %       | 9                        | 1                                                       | -   | -   | 1                                                                                  | -  | 1 | 1 | 4                                                                                                         | -   | 1              | - | 4                                     |                          |
| 14     | Sedimentary<br>Rocks   | 8 %       | 10                       | 1                                                       | 1   | -   | 2                                                                                  | 1  | 1 | - | 4                                                                                                         | 1   | -              | - | 4                                     |                          |
| Total  |                        | 100 %     | 123+25=148               |                                                         |     |     | 17                                                                                 |    |   |   | 66                                                                                                        |     |                |   | 40                                    | 25                       |

- 2) This scheme of Assessment is prepared as per 33% choice in short answer questions, essay questions & questions relating to practicals.
- 3) In order to promote the cause of concept based learning at least 10 % questions must be unseen or of daily life but relating to specified learning outcomes of Curricula & Syllabi. This portion will increase @ 10% annually but not more than 30%.
- 4) The questions relating to practical will be asked from the practical Note Book as per chapter were detail given in the curriculum and syllabi 2006.
- 5) The Practical will be conducted at the end of 12<sup>th</sup> Class which is mandatory to qualify for award of certificate.
  - The Practical assessment will be made in the form of grading as per following criteria.

A+= 90% & above, A=80% to 89%, B= 70% to 79%, C= 60% to 69%, D= 50% to 59%, E= 40% to 49%, F= Fail = 40% & below

