

B.E. DEGREE EXAMINATIONS: APRIL / MAY 2009

Third Semester

CIVIL ENGINEERING

U07AG302 Applied Geology

Time: Three Hours

Maximum Marks: 100

Answer ALL the Questions:-

PART A (20 x 1 = 20 Marks)

1. The Innermost Concentric shell of the earth is known as
 - a) The crust
 - b) The Mantle
 - c) The Core
 - d) Asthenosphere
2. The Phenomenon of crustal deformations (or) Movements are called
 - a) Diastrophism
 - b) Epeirogenic movement
 - c) Orogenic movements
 - d) Isostasy
- 3) The process of Mechanical deformation and Chemical decomposition of rocks is known as
 - a) Exfoliation
 - b) Weathering
 - c) Spheroidal weathering
 - d) Chemical weathering
- 4) Alluvial deposits of triangular shape that are deposited by major rivers at their mouth is termed as
 - a) Delta
 - b) Flood plains
 - c) Mesa
 - d) Hogback
- 5) Which of the given mineral Crystallizing in the Normal class of Isometric System
 - a) Zircon
 - b) Galena
 - c) Rutile
 - d) Barite
- 6) The capability of some minerals to split along certain planes is called
 - a) Fracture
 - b) Hardness
 - c) Cleavage
 - d) Streak
- 7) The Hardness of the mineral Calcite is
 - a) 7
 - b) 6
 - c) 2
 - d) 3
- 8) Which of the given mineral belong to Clay group is
 - a) Kaolin
 - b) Biotite
 - c) Garnet
 - d) Augite
- 9) Rocks are formed at greater depth below the surface of the earth
 - a) Sedimentary rocks
 - b) Plutonic Igneous rocks
 - c) Volcanic Igneous rocks
 - d) Hypabyssal rocks
- 10) A layered structure similar to stratification having thickness less than 1 cm is
 - a) Bedding
 - b) Mud cracks
 - c) Lamination
 - d) Ripple marks

(OR)

21 b) Describe the Geological work of wind in respect of Erosion, Transportation and Deposition.

formed as

22) a) i) Enumerate at least six important physical properties of minerals and compare Quartz with Calcite in respect of these properties (8)

detent

ii) Write down the physical properties of Biotite and Muscovite. (8)

(OR)

is termed

group

22) b) Discuss in detail, the axial character, Elements of Symmetry and forms present in the Normal class of Tetragonal System. Name at least three minerals crystallizing in this system.

nts

23) a) What is meant by Texture of a rock? Enumerate the various textures found in Igneous rocks. Explain in detail.

(OR)

23) b) Write down the detailed description, mineral composition, Mode of occurrence and Engineering properties of the following rocks.

i) Granite ii) Dolerite iii) Sandstone iv) Marble

24) a) What are faults? How are they classified? Add a note on the Engineering considerations involved in dealing with faulted rocks.

(OR)

axis

the slope

24) b) Explain in detail, the various Geophysical methods involved in the Civil Engineering investigations.

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25) a) What are Land slides? Discuss briefly their types, Causes and preventive measures.

(OR)

25) b) Discuss in detail, the likely Geological problems which may be encountered in the construction of dams.

(8)

(8)
