COMMON ENTRANCE EXAMINTION JULY 2009

SERIES GEOLOGY, DURATION 3 HOURS, COEFFICIENT 4

SECTION A

Answer all questions in this section by selecting the correct answer from the letter A, B, C.

(1)Which of the following parts are found in bivalves? (a) umbo (b) ligament (c) cruca.

(2)The type of energy released from the earth s rocks that causes earthquakes is called

(a) Stress energy (b) shear energy (c) train energy

The table below shows the chemical composition (wt% oxides) of four plutonic igneous rocks M.N.O.P use the table to answer question 3&4:

Weight	M	N	O	P
SiO	70.8	6[illegible].5	41.7	49.0
Al_2O_3	14.6	17.6	0.9	18.2
Fe_2O_3	1.8	2.7	5.7	6.0
MgO	0.9	0.9	47.7	7.6
CaO	2.0	2.3	0.7	11.2
Na_2O	3.5	5.9	0.1	2.8
K_2O	4.2	5.2	-	0.9
others	0.6	1.9	1.3	2.1

(3)Why are rocks M and N likely to contain alkali-feldspars but not rocks O and P?

(a)Rocks M and N have a high % of SiO_2 than O and P

(b)Rocks M and N have a low % of MgO than CaO than rocks O and P

(c)Rocks M and N have a high % of Na_2O and K_2O than rocks O and P

(4) Why would rock P be considered to be hypermelanic (a) it has a low content of SiO_2 (b) it has a high content of Al_2O_3 (c) it has a high content of FeO and MgO

(5) Around which plate margin would diagenetic changes, folding, magmatic melting and rock foliations would be well developed? (a) Divergent plate boundaries (b) conservation plate boundaries (c) convergent plate boundaries

(6)What would happen if ice caps of the world were to completely melt? (a) the land masses around the world would rise (b) the surrounding low land masses around the world s oceans would be submerged (c) the earth s temperature will rise.

(7) Why do P and S waves not moves on the earth surface? (a) because they are body waves that only move in the earth, (b) because their propagation depends on the density and rigidity of materials which are not present on the earths surface, (c) because they don't have high amplitude.

(8) When were the high rank coals of the world that are being mined today formed? (a) About 250 million years ago (b) Before 350 million year (c) Before 150 million year.

(9)The following statistics show a mechanical analysis of grain size distribution in a sedimentary rock expressed in percentage; 4-2mm = 40%, 2-1mm= 30%. Select from the list below the type of sedimentary rock that was analysed (a) a rudite (b) an arenite (c) a pelite.

(10)How can you in a map use the width of beds in a faulted syncline to determine the down thrown side? (a) the width of beds on the down thrown side is wider (b) the width of beds on the down thrown side narrower (c) the width of bed s on the down thrown side displaced down ward in the direction of movement.

SECTION B