#### **BARITE**

# SEZGIN\_UCAR

Which industry is using most of the Barite in the world?

- a) On the construction industry as a cement material
- b) Used in agriculture industry most
- c) On the petroleum industry as drilling fluid x
- d) On the pharmacy

Which ones are the most common Barium minerals?

- a) Psilomelane-Romanechite
- b) Calcite-Dolomite
- c) Alstonite-Quartz
- d) Barite-Witherite x

Which country is producing most of the Barite on the World?

- a) China x
- b) England
- c) South Africa
- d) Turkey

Which mineral is used as a "rat poison"?

- a) Witherite
- b) Barite x
- c) Psilomelane
- d) Calcite

Where is the bigger Barite deposits in Turkey?

- a) Ankara
- b) Nevşehir
- c) Giresun x
- d) Erzurum

Answers: 1C 2D 3A 4B 5C

### BAUXITE

### MEHMET CAN BALCI

- 1- Which one of the following is one of the uses of bauxite?
- a- refractory products X
- b- cotton textile
- c- PVC production
- d- recycled paper products
- 2- Which one of the following is not a traditional use of bauxite?
- a-Blast Furnaces
- b-Iron/Steel Ladles
- c-Torpedo Cars
- d-Silk textile X
- 3- What is the main element of bauxite?
- a- 4 to 5
- b- 1 to 3 X
- c- 2 to 3
- d-3 to 4
- 4- Which one of them is main mineral assemblages of bauxite?
- a- gibbsite-boehmit
- b- turmalin-corundum
- c- felspatic zirconia-gibbsite
- d- none of them X

5- Which location is main bauxite deposite in Türkiye? a- Malatya-Darende b- Mardin-Midyat c- Kayseri-Pınarbaşı d- Konya-Seydişehir X
ENGIN YILMAZ CARBOANTE ROCKS
1- Which one of them is not an utilization of carbonate rocks? a) Ornamental Stone b) Chemicals c) Architecture d) Explosive material (x)
<ul><li>2- Which mineral of them is absence in the composition of carbonate rocks?</li><li>a) Aragonite</li><li>b) Olivine (X)</li><li>c) Dolomite</li><li>d) Siderite</li></ul>
3- Which chemicals are not a product of carbonate rocks?  a) Calcium oxide  b) Calcium hydroxide  c) Iron Oxide(x)  d) Magnesium Oxide
4- Which element is the main substance of dolomite? a) Mg(x) b) Fe c) Si d) Al
5- Which environment of them is a typical depositional basin for carbonate rocks? a) Delta b) Alluvial Fan c) Continental shelf (x) d) Eolian
TUGBA SARAL FELDSPAR
Questions 1)Which kind of deposits we can see Feldspars with? A) Nepheline Syenite B) Aplite C) Feldspatic Sand Stone(Pegmatite) D) All of them
2) Which is not usage of Feldspar in industry? A)Downstream Industry B)Ceramics Industry C)Leather Industry D)Glass Industry
3) Which Companies don't use Feldspar for industry in Turkey? A)Esan Eczacıbaşı Endüstriyel Hammadeler San. ve Tic. A.Ş. B) Abdi İbrahim İlaç Sanayi ve Tic. A.Ş. C)Çine Akmaden Madencilik D)Kaltun Madencilik Tic. A.Ş.
4) Where we find Felspar mines in Turkey? A)Aydın B)Trabzon C)Kırklareli D)Gaziantep
5)How many Feldspar is Turkey import avarage per a year? A)20.000t-780.000\$ B)15.000t-560.000\$ C)45.000t-990.000\$ D)33.000t-750.000\$

#### NESES KUVAJ GYPSUM

1) Which one of them is not the sectoral usage of the gypsum?

Plaster

Cement

Textile (x)

Wallboard

2) How many percent of gypsum is added into the Portland Cement as puzzulan addictive?

1 - 2%

5 - 6% (x)

10 %

18 %

3) Which country of the world is the main supplier of gypsum?

Iran

The U.S.A. (x)

China

Russian Federation

4) What is the approximately production of gypsum in Turkey?

About 1800 million tons(x)

About 4200 million tons

About 6500 million tons

About 100000 million tons

5) Which one of them is not a gypsum mineral?

Alabaster

Anhydrate

Gypsum

Morillenite (x)

# IŞIL ÖMEROĞLU

# FLUORSPAR AND CRYOLITE(FLUORIDES)

- 1) Which one of them is not the utilization of industrial sector of Fluorite?
- a) as fluxing agent in the iron and steel industry
- b) as vitrifying and specifying agent in glass industry
- c) as a whitener for enamels in the ceramic industry (x)
- d) as a source of fluorine in chemicals, synthetic cryolite for use in the aluminum industry
- 2) Which is the major cryolite deposit of world?
- a) Bohemia, Czech Republic
- b) Ivigtut, West Greenland (x)
- c) Norway
- d) Kentucky-USA
- 3) Based on the economical point, which one of the below is not one of the most important "typical occurrence" of Fluorspar (Fluorite)?
- a) Stratiform replacement deposits in carbonate rocks
- b) Deposits in the marginal portions of carbonatite and alkalic rock complexes
- c) Stockworks and fillings in shattered zones
- d) Deposits in pegmatite in porphyritic granite (x)

- 4) Which one of them is the major Fluorite deposit of Turkey?
- a) Aksaray, Central Anatolia
- b) Çiçekdağı foreland basin, Central Anatolia (x)
- c) Manisa, Agean
- d) Kütahya, Agean
- 5) Which one of the below is not an area in which cryolite is used?
- a) Mainly in the production of soda
- b) In the ceramic industry, as a whitener for enamels
- c) Used in bonding grinding wheels and abrasives
- ${\bf d}{\bf j}$  Used instead of glass in some high performance telescopes and camera lens elements ( ${\bf x}{\bf j}$

# ANSWERS:

- 1) C
- 2) B
- 3) D
- 4) B
- 5) D

# KIYMET DENIZ ASBESTOS

Which mineral of them is belong to the serpentine group of asbestos?

- a) Chrysotile (x)
- b) Actinolite
- c) Tremolite
- d) Crocidolite

### Which one of the following items does not belong to the amphibole group of asbestos?

- a) Amosite
- b) Anthophyllite
- c) Crocidolite
- d) Chrysotile (x)

Which one of them is comprised about 94% of the world production of asbestos nowadays?

- a) Anthophyllite
- b) Chrysotile (x)
- c) Amosita
- d) Actinolite-Tremolite

# Which country is the main producer of asbestos in the world?

- a) Australia
- b) Canada (x)
- c) Russia
- d) Italy

# What is not the characteristic feature of asbestos for industrial usage?

- a) Resistance to heat
- b) Flexibility
- c) Lenght
- d) Color (x)

#### SILLIMANITE EMRAH KAPLAN

- 1. What is the Sillimanite group's chemical formula?
- A) Al2SiO4
- B) Al2SiO5
- C) AlSiO4
- D) AISiO5
- E) AISiO
- 2. Where is Andalusite found?
- A) It is found in argillaceous, micaceous slates, in schists and gneisses resulting from the contact metamorphism of intrusive rocks.
- B) It is found in intrusive rocks.
- C) It is found in sedimentary rocks.
- D) It is found in metamophic rocks.
- E) It is found in sedimentary and intrusive rocks
- 3. Which of these mineral/minerals uses electrical types of porcelain?
- A) Kyanite and mullite
- B) Mullite and andalusite
- C) Only mullite
- D) Only kyanite
- E) Only andalusite
- 4. Who is Sillimanite call?
- A) Newton
- B) Steenson
- C) Xavier Le Pichon
- D) Raymond Siever
- E) Benjamin Silliman
- 5. What are crystal habbit of sillimanite, kyanite and andalusite?
- A) Orthorhombic-Orthorhombic-Triclinic
- B) Triclinic-Orthorhombic-Orthorhombic
- C) Orthorhombic-Hexagonal-Orthorhombic
- D) Orthorhombic-Triclinic-Orthorhombic
- E) Hexagonal-Hexagonal-Orthorhombic

# ELİF AKLAN - 03290634

CLAY

- 1. Which of the followings is the formula of Kaolinite?
- A) Al2Si3O5(OH)4
- B) Al3Si2O5(OH)4
- C) Al2Si2O5(OH)4
- D) Al2Si2O5(OH)3
- 2. On Earth where Kaolinite is not mined?
- A) France
- B) Korea
- C) India
- D) Egypt
- 3. Which of the followings is not a type of Chlorite?
- A) Clinochlore
- B) Chamosite
- C) Nimite
- D) Sepiolite

<ul><li>4. On Earth which of the followings is not found with Chlorite?</li><li>A) Epidode</li><li>B) Sericite</li><li>C) Adularia</li><li>D) Quartz</li></ul>
<ul> <li>5. In which of the following applications concerning firing manner is Clay types not used?</li> <li>A) Earthenware</li> <li>B) Stoneware</li> <li>C) Porcelain</li> <li>D Tobacco</li> </ul>
Nihat Can Demir (Chalk and whiting materials)
1-Which country is not major producer of chalk? a)England b)USA c)France d)Iraq X
2-Which one is not using areas of chalk and whiting materials? a)Paint b)Linseed Oil Putty c)Rubber d)Electronics X
3-Which one is whiting material? a)Gold b)Corund c)Limestone X d)Copper
4-What is main composition of chalk? a)MgCO <sub>3</sub> b)CaCO <sub>3</sub> X c)SiO <sub>2</sub> d)Fe <sub>2</sub> O <sub>3</sub>
5-When was formed great chalk deposits? a)Cretaceous X b)Eocene c)Miocene d)Oligocene
SILLIMANITE_EMRAH_ KAPLAN
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- 2. Where is Andalusite found?
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- C) Orthorhombic-Hexagonal-Orthorhombic
- D) Orthorhombic-Triclinic-Orthorhombic
- E) Hexagonal-Hexagonal-Orthorhombic

# **ELCÍN DURANAY**

Questions of Dimension Stone

Which one is not dimension stone below?

- A) Limestone
- B) Marble
- C) Clay X
- D) Granites
- 2) What is the composition of limestone?
- A) AIO(OH)
- B) PbS
- C) AI(OH)<sub>3</sub>
- D) CaCO<sub>3</sub> X
- 3) Which one is not the mineral that granite consists?
- A) Quartz
- B) Feldspar
- C) Hornblende
- D) Mica
- E) Chlorite X
- 4) Which one is the most important effect to form metamorphic rocks?
- A) Heat-Pressure X
- B) Crystallization
- C) Accumulation of calcium carbonate
- D) Cooling of magma

5) Which one a A) Iron oxide B) Clay C) Calcite D) Quartz X	are not the cementing materials of sandstone?	
FATİH MURAT lightweight agç	Г SAĞLAM 03290609 gregate	
1-) Which isn't a) Fire Rasista b) water insula c) Thermal ins d) Refractory u	ition X ulation	
2-) Which are to a) natural light b) Refractory to c) sound insilar d) concrete		
3-) Which isn't a) vermiculite b) diatomite c) perlite d) ytong X	the lightweight aggregate natural materials at the bottom?	
a) ytong	the lightweight aggregate artificial materials at the bottom? brick production	
Huseyin Doga Zirconium	n	
A zirconium B.quartz C.Flourite D.calcite	nter than stell and its hardness is similar to copper.	
A.outher core B.inner core C.outher crust D.asthenosphe	ere	
A.apatite B. Gypsum C. Muscovite D.zirconium	e of the most useful electroceramic.	
<ul><li>4 is for</li><li>A. quartz</li><li>B. Olivine</li><li>C. Talc</li><li>D. Zirconium</li></ul>	r structural material in nuclear reactor cores.	

5. The phase of zirconia has a very low thermal conductivity, which has led to its use as a thermal_barrier.  A.tetragonal  B.cubic  C.hegzagonal  D.monoclinic
Merve ÇAKMAK
Zeolithes
1) Where do natural zeolites form?
A) In thin layers that form with alteration of carbonate rocks.
B) With some minerals that are in plutonic rocks.
C) Where volcanic rocks and ash layers react with alkaline. X
D) In metamorphic rocks that form in low temperature and high pressure.
2) Zeolites are rarely pure and are contaminated to varying degrees by some minerals. What are these minerals?
A) calcite, feldispar, quartz.
B) quartz, orthoclase, other minerals.
C) quartz, metals, other minerals. X
D) calcite,orthoclase,other minerals.
3) What is the one of the commercial important chemical property that is used in produced of synthetic zeolites?
A) adsorption
B) toxicity
C) ion exchange X
D) catalysis

- 4) Which techniques are used to mine natural zeolite?
- A) strip mining techniques
- B) placer mining techniques
- C) conventional open pit mining X
- D) mountaintop removal techniques
- 5) What are the some usage areas of zeolites?
- A) in he manufacture of glass, as fillers, agriculture, animal welfare
- B) in the manufacture of ceramics, as detergents, heating and refrigeration
- C) in detergent industry, nuclear industry, construction X
- D) as fillers, in he flooring sector, in the manufacture of ceramics.

Tunc YUCEL Sodium Sulfate-

In nature two processes cause the deposition of sodium sulphate. Which one of these processes below is the right one?

- a) Cooling and freezing
- b) Precipitation and warming
- c) Evaporation and cooling (x)
- d) Condensation and vaporization

Both in Beypazari and Kazan it has been planned to get the sodium sulfate deposits by using what kind of mining method?

- a) Room and pillar method
  - b) Solving method (x)
  - c) Open mining method
  - d) Biohydro mining method

Which one of these is an economical sodium sulphate mineral?

- a) Mirabillite (x)
  - b) Zeolite
  - c) Bloedite
  - d) Bauxite

Which one of these is not a major usage area of sodium sulphate?

- a) Glass industry
  - b) Kraft pulp industry
  - c) Ceramic industry (x)
  - d) Synthetic detergents

Which one of the words below means resulting sodium sulfate from chemical processes?

- a) Glaubers salt
  - b) Salt cake (x)
  - c) Pulp
  - d) Chalk

# Ceyda Öztürk gemstones

- 1) Which is not a precious stone?
- a) sapphire
- b) ruby
- c) diomand
- d) quartz X
- 2) Which is not a silicate meneral?
- a) opal
- b) pyrite X
- c) quartz
- d) garnets
- 3) What is the name of green beryl?
- a) heliodor
- b) aquamarine
- c) emerald X
- d) morganite
- 4) Which minerals can be found in Australia?
- a) opal-sapphire X
- b) garnet-beryl
- c) diomand-zircon
- d) quartz-topaz
- 5) Which is not a important specification for gem materials?
- a) beauty
- b) durability
- c) rarity
- d) twinning X

# Sebla Figen Geremeli

grafit

- 1) How many cleavage directions have graphite crystal?
- a-Perfect in one direction (x)
- b-Perfect in two directions
- C-Perfect in three directions
- d-No cleavages
- 2) What is the specific gravity of graphite?
- A) 3.4
- **b)2,2** (x)
- c)2,8
- d)3,6

**Biçimlendirilmiş:** Yazı tipi: 10 nk, İngilizce (ABD)

- 3) Which country has biggest potential graphite reserves in the world?
- a)England
- b)Turkey
- c)Sri Lanka (Ceylon)(x)
- d)Iraq
- 4) What is the crystal system of graphite crystals?
- a) Tetragonal
- b) Rhombohedra
- c) Monoclinic
- d) Hexagonal (x)
- 5) What is the flake crystal of graphite?
- a) It is a type of big, flatted lamellar structure of graphite crystals.
- b) It is a lamellar but skewed along the c-axis of crystals.
- c) It is a form in big rounded granular type crystals.
- d) None of them.

# **BARIS YOLALAN**

#### **POTASH**

- 1. Which mineral of them is not a potash mineral?
- a) Sylvite
- b) Carnallite
- c) Langbeinite
- d) Biotite X
- 2. Which lake of Turkey has the lowest potash content?
- a) Burdur
- b) Lake Van
- c) Tersakan d) Lake Hazar X
- 3. What is the main product of Potash in chemical industry?
- a) KCI X
- b)H2O
- c) SiO2
- d) HCI
- 4. Which one of them is the associated mineral with Sylvite?
- a) Halite X
- b) Distene
- c) staurolite
- d) Garnet
- 5. Which country is the leading producer and exporter of potash in the World?
- a) Canada X
- b)Nigeria
- c) Bulgaria
- d) Azerbaijan

# BORATE MINERALS

FUNDA OZERKAN

Which mineral isn't found in main borate minerals?

Ulexite

Colemanite

Kernite

Apatite

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Which city doesn't have borate deposit in Turkey?
Kütahya
Eskişehir
Konya
Balıkesir
Which country isn't large producer of borates?
USA
Turkey
Argentina
Arabia
Where aren't the commercial borate deposits distributed?
South Western USA Mojave Desert
South-Central Asia Alpine Belt (Including Turkey)
South America Andean Belt
Arabia
How did borate deposits occur in Turkey?
Hydrothermal veins
Sedimentation
Volcanic activities
Salt dome
Murat Yertutanol
Strontium
1) Where is Strontium deposits in Turkey?
       a)Ankara
       b)Nevşehir
       c)Giresun
       d)Sivas X
2) Which country is producing most of the Strontium on the World?
       a)China
       b)England
       c)South Africa X
       d)Turkey
3) Which ones are the most common Strontium mineral?
       a)Psilomelane
       b)Calcite
       c)Celestine X
       d)Strontianite
4) Which industry is using most of the Strontium in the world?
       a)On the construction industry as a cement material
       b)Used in glass industry most X
       c)On the petroleum industry as drilling fluid
       d)On the pharmacy
5) Who did discover strontium?
       a)Adair Crawford X
       b)Charles Darwin
       c)Amadeo Avogadro
       d)Niels Bohr
Answers: 1d
                                      5a
                      Зс
                              4b
              2c
```

Elif Tekin Magnesite
Which element is not occured in magnesite?
a) Mg
b) C
c) O
d) Fe
Which one of them is the correct temperature value for magnesite metal?
a) 1600 - 2000
b) 1450 - 1530
c) 1000 - 1300
d) 1500 - 1600
Which one of them can not be a source that magnesite can be obtained from?
a) magnesite
b) sea water
c) natural binds
d) trees
In which way magnesite can usually be resulted from?
a) by hot-water ( hydrothermal ) alteration of serpentine.
b) by carbonization

c) by an alteration of calcite

d) none of these.

a) Eskisehir - Kutahya
b) Erzincan
c) Konya
d) Istanbul
Mustafa Özdoğan QUARZITE
1)Which one is not a consumption area for quartzite? a)Glass b)Seramic c)Paint d)Asphalt (X)
2)Which city is rich as quartzite reserve? a)Trabzon b)Yozgat c)Tunceli d)Aydın (X)
3)What is the hardness of quartz? a)5 b)6 c)7 (X) d)8
4)Which one is non-effective in formation of quartzite? a)Heating b)Pressure c)Tectonic compression d)Liquid (X)
5)What is the usual color of quartzite? a)White and grey (X) b)Brown c)Black d)Red
Mustafa Özdoğan 03290644 QUARZITE
1)Which one is not a consumption area for quartzite? a)Glass b)Seramic c)Paint d)Asphalt (X)
2)Which city is rich as quartzite reserve? a)Trabzon b)Yozgat c)Tunceli d)Aydın (X)

Which one them is not the place that has magnesite Turkey?

3)What is the hardness of quartz?
a)5
b)6
c)7 (X)
d)8

4)Which one is non-effective in formation of quartzite?
a)Heating
b)Pressure
c)Tectonic compression
d)Liquid (X)

5)What is the usual color of quartzite?
a)White and grey (X)
b)Brown
c)Black
d)Red

# Meltem arıkoğlu

1.Which method does not using for sulfur processing?
Milled sulfurs
Formed sulfurs
Precipitated sulfur.
Frasch process X

2. Which categories is not about sulfur products? Crude sulfur X
Agricultural sulfur
Industrial sulfur
Rubbermaker's sulfur

3. Which elements do not occur with sulfur?

Pyrite Gold X Iron Chromite

4. Which properties do not describe sulfur?

Odorless Insoluble in water Tasteless Metalic X

5. Which product is about industrial sulfur?

Wettable sulfur Flowable sulfur Milled sulfur X Dusting sulfur

Ayse caglayan diatomite

Which are not the common usage of the diatomites?

Filter material
Filler material
Abrasive with mild hardness
Nuclear technology x

Which one of them does not apply the diatomite as a filte material?

- a) Air x
- b) Alcoholic and nonalcoholic drinks
- c) Chemicals
- d) Solvents

What is the depositional environments of diatomite?

- a) Deep sea basins
- b) Lakes, filled with volcanic tuffous material x
- c) Alluvial fan deposition environments
- d) Glacial-moren sedimentation

Which industrial sector could use the diatomite as a filler material?

- a) Paper x
- b) Iron casting
- c) He- gase production
- d) Nucleer casting industry

Which countries is the major diatomites producers in the world?

- a) Turkey
- b) Germany
- c) USA X
- d) Greece

#### İbrahim Aslan

Which rock can not be used as crushed stone in construction industry?

- A) Granite
- B) Dolomite
- C) Mudstone x
- D) Gneiss

Which one of them is not a usage of the crushed stones?

- A) Highway contructions
- B) Concrete
- C) as filter for waste water
- D) as abbrasive of glass industry x

Which sector uses the crushed stones for the properties of its color?

- A) Construction x
- B) Cement
- C) Highway
- D) Water Filter

Which ndustry uses the crushed stones as raw material for its chemical properties?

- A) Cement x
- B) Construction
- C) Highway Building
- D) Decorative

Which one of them is not specific characteristic for crushed stones?

- A) Specific gravity x
- B) Chemical composition
- C) Grain size
- D) Color

### Mehmet AKIN Ceramic raw materials

# 1-) Which is naturally occuring raw material?

- a) Litharge (PbO)
- b) Barium Titanate (BaO TiO<sub>2</sub>)
- c) Titanium Carbide (TiC)
- d) Feldspar ( $K_2O$  or  $Na_2O$   $Al_2O_3$   $6SiO_2$ ) x

# 2-) Which is the major raw material used by ceramic industry?

- a) Zircon
- b) Borax
- c) Clay x
- d) Talc

# 3-) Which is used to make wall tiles and sanitary ware?

- a) Kaolinite
- b) Ball Clay x
- c) Fireclay
- d) Feldspar

### 4-) Which ceramic is used for Windows and windshields?

- a) Glass x
- b) Whiteware
- c) Refractory
- d) Structral Ceramic

# 5-) Which country is the leader of feldspar production?

- a) Germany
- b) Japan
- c) Italy x
- d) Thailand

### ELIF TURKOZ BLEACHING CLAY

- 1)Where is the largest bleaching clay deposit on the world?
- a)Turkey
- b)USA x
- c)England
- d)Japan
- 2) Which one of them is not bleaching clay?
- a)fuller's earth
- b)activated clay
- c)non-activated clay x
- d)activated bauxite
- 3) which clay is used as source material for preparing of the fuller's earth?
- a)bentonite x
- b)beidellite
- c)saponite
- d)nontronite

- 4) Which one of them is not usage of the bleaching clay?
- a)treatment of naphtha
- b)reduction of the amount of gum
- c)stability
- d)colorization of oils, fats and waxes x
- 5-Why uses the bleaching clay on the animal, vegetable and petroleum oils, fats and waxes.
- a)decolorization x
- b)colorization
- c)drying
- d)dewatering

#### Mehmet Akın

Ceramic raw material

- 1-) Which is the major raw material used by ceramic industry?
- a) Zircon
- b) Borax
- c) Clay x
- d) Talc
- 2-) Which one is used as containment material, insulation and heat?
- a) Glass
- b) Refractory x
- c) Whiteware
- d) Artware
- 3-) Which ceramic is used for Windows and windshields?
- a) Glass x
- b) Whiteware
- c) Refractory
- d) Structral Ceramic
- 4-) Which country is the leader of feldspar production?
- a) Germany
- b) Japan
- c) Italy c
- d) Tháiland
- 5-) Which type of clay, with lower white-firing acharacteristic, is used for ceramic production?
- a) Ball Clay
- b) Fire Clay
- c) Plastic Ćlay x
- d) Kaolin

### RANA TURKOGLU PHOSPHORUS

1. Which types of sedimentary phosphorites result from the accumulation of animal excrement, largely seabirds.

Primary pellets

Secondary pellets

Guano X

Ooid

- 2. Which one of the statements in the down is wrong?
- a. Pelletal phosphorites are in marine formations commonly associated with dolomite or limestone.
- b. The factors control the formation of marine phosphorites are upwelling and low sedimentation rates.
- c. The important igneous apatite deposits are found in certain intrusive complexes of alkalic rocks
- d. Guano phosphorites are commonly ovoid in shape although some skeletal pellets, such as broken shells, can be elongate.  $\, X \,$
- 3. Which one of the downs are the formula of principal minerals in phosphate rock?
- a. Ca10(X2)(PO4)6 X
- b. Ca5(X2)(PO4)3
- c. Na5(X2)(PO4)3
- d. Na10(X2)(PO4)5
- 4. Which one the methods in down is used to discern the phosphate minerals?

**XRF** 

XRD X

ICP-MS

SEM

- 5. Which one of the downs are the most common using area of phosphorous?
- a. Sugar refinining
- b. Silk textiles
- c. Fertilizer X
- d. Smoke screens

### REFRACTORIES ALPHAN UZUN

- 1-What is the Aluminum content of fireclay refractories?
- A)ranges from 0 to 100 %
- B) 100%
- C) 0%
- D) ranges from 25 to 45 % X
- 2-What is the Alumina content of the Hi-Alumina Refractories?
- A) varies between 45 to 100% X
- B) varies between 20 to 30%
- C) varies between 10 to 20%
- D) 100%
- 3-Which type of refractory materials is used, if your molten material is acidic?
- A) Acid refractories X
- B) Basic refractories
- C) Neutral refractories
- D) Not Important
- 4-Which one is the synthetic refractory material?
- A)Zircon
- B)Fireclay
- C)Silicon Carbide X
- D)Periclase
- 5-Why the application of Silica brick are limited in refractory industry?
- A) Because, it is the most expensive refractory material
- B) Because, cracking can occur when heated rapidly X
- C) Because of its rarity
- D) Because it is a strategic material

### NILGUN KIRAN CEMENT

Which is the typical constituents Portland Clinker? Calcium Oxide Alumina Oxide Dicalcium Silicates Silicon Oxide

2.Which is the typical constituents Portland Cement?
Dicalcium Silicate
Ferric Oxide
Tetracalcium Alumina Ferrite
Tricalcium Aluminate

3.Which is not special cement? Supersulphate Magnesium Oxychloride Expanding Tetracalcium Alumina Ferrite

4. which is cement mixture of compounds? silicates and aluminates of calcium silicates aluminets of calcium calcium

1.c -2.b -3.d - 4.a

5- YOK... GONDERMEDİ

Korcan Yağcı Diamond

- 1) what is the most evident characteristic of diamond?
- A) Colour
- B) The shape of cutting
- C) Hardness
- D) Streak colour
- 2) How is the shape of the diamonds that is used in gemology?

Heart Marquise Teardrop Emerald

A) 1, 2 and 3 B) 1, 3 and 4 C) 2, 3 and 4 D) 1, 2, 3 and 4

3) Which country diamond is not occured in?

Russia Australia South Africa Turkey

- 4) Which usage areas is belongs to diamond in the industry? i.Jewelery
- ii. Cutting/drilling
- iii. Steel industry
- a) only 1
- b) 1 and 2
- c) 2 and 3
- d) 1 and 3
- 5) Which rocks are necessary for the formation of diamond?

Kimberlites

Granites

Limestones

Andesites

Halil İbrahim Özbak schiefertone

- 1)Where does schiefertone take place?
- a) in carbonate rocks in Miocene
- b)In fresh water lake or quite water s(true)
- c)with alteration of olivine in igneous roscks
- d) in granulite facies that has high temperature
- 2) Which one is the true about the composition of schiefertone?
- a)main minerals are aluminium oxide and silisium oxide, poor about alcali and iron (true)
- b)main minerals are aluminium oxide and iron oxide, rich about alcali
- c)Silisium oxide and iron oxide
- d)main minerals are Carbon and silisium oxide, poor about alcali and iron
- 3)Which conditions must be provided to be occurance of schiefertone?
- a)low level of pH, to be poor alcali and iron composite
- b)chemical combinations of materials which comes outside must be suitable, convenient pH level of water(true)
- c)deposite is fast in salt waters, also grains must be deposite fastly, to be poor iron composite
- d)chemical combinations must be suitable, high level of pH, grains must be huge enough
- 4) Which one is not a consumption area for schiefertone?
- a)Seramic
- b)Detergent
- c)Plastic (true)
- d)Food
- 5)What sould the producers do to decrease the percentage of  $ironoxide(Fe_2O_3)$  that is the most important material ( but non wanted) in the schiefertone?
- a)Pressure
- b)Pre-heat and magnetic seperate (true)
- c)Reaction with chemicals
- d)Melt

### OZGE UNLUCE SALT

- 1)The raw salt production is done by four different methods in Turkey. Which one of the following answers isn't included to these four methods?
- a)production from sea water method
- b)production from lake water method
- c)production by underground mining method
- d)production by saltpan method ×
- 2)For solar evaporation method some conditions should be provided. Which one of these following answers isn't correct?
- a)the soil should be impermeable
- b)there should be a balance between evaporation and precipitation
- c)the conditional humidity ratio in air should be suitable
- d)the force of the wind should be strong ×
- 3)Which one of these following answers isn't correct for uses of salt?
- a)Preservative
- b)Chemical manufacturing
- c)Paint industry ×
- d) Freezing point depressant
- 4) In evaluating a salt deposit for dry mining the geological aspects surrounding the deposit are almost as important as the deposit itself. Which one of these following answers isn't included to primary aspects?
- a)Ground water
- b)Overburden characteristics
- c)Climate ×
- d) Faults
- 5) Which one of these following answers isn't correct for the properties of salt?
- a) it's formula is NaCl
- b)it's cleavage is perfect
- c)it's specific gravity is about 4.68 ×
- d)it's hardness is 2

# HARUN AYYILDIZ GRAVEL AND SAND

1-HOW IS THE SAND RESERVE IN Turkey?

A-some cities are very rich b-Turkey is complete rich (x) c-No sand in Turkey d-Just inside of Turkey

2- Which one is a consumption are for sand?

a-construction (x)

b-Detergent

c-paint

d-electronic

3-Which is the consumption area for gravel?

a-drug

b-food

c-Asphalt (x)

d-plastic

4-Which one is the most important force in formation of sand? a-chemical forces b-mechanical forces (x) c-temperature force d-other natural forces

5- Which place is most suitable for processing sand? a- near sea b-near stream (x) c-mountain d-hill