

Reg.No. \_\_\_\_\_



# Karunya UNIVERSITY

(Karunya Institute of Technology & Sciences)  
(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

## End Semester Examination – Nov/Dec – 2016

**Code : 14CE2004**  
**Sub. Name : Building Materials and Geology**

**Semester : 2016-17 ODD**  
**Duration : 3hrs**  
**Max. marks : 100**

Q. No.	Questions				Course outcome	Marks
PART-A (40X1=40 MULTIPLE CHOICE QUESTIONS)						
1.	Desired percentage composition of lime?				CO 3	
	A. 60-67%	B. 35-70%	C. 35-55%	D. 20-25%		(1)
2.	Which component when used in excess results in disintegration of concrete?				CO 3	
	A. Alumina	B. Silica	C. Lime	D. Magnesia		(1)
3.	Which of the following is not matched correctly?				CO 3	
	S.N	Property	Definition			
	a	Ductility	A measure of the degree of plastic deformation			
	b	Stiffness	A property of material to resist plastic deformation			
	c	Flexibility	A property of material which permits considerable			
	d	Malleability	Material can be flattened into sheets			
	a. Ductility	b. Stiffness	c. Flexibility	d. Malleability		(1)
4.	What is done to make steel of desired shape?				CO 3	
	A. Hot Working	B. Cold Working	C. Galvanizing	D. Electrolysis		(1)
5.	What is done to impart necessary properties to steel?				CO 3	
	A. Hot Working	B. Cold Working	C. Galvanizing	D. Electrolysis		(1)
6.	What can be done to prevent corrosion of steel?				CO 3	
	A. Painting	B. Galvanizing	C. Alloying	D. All of the above		(1)
7.	The rate of heat evolution of the following four compounds in descending order is 1. C <sub>3</sub> S                      2. C <sub>2</sub> S                      3. C <sub>3</sub> A                      4.C <sub>4</sub> AF				CO 3	
	a. 1,2,3,4	b.3,1,4,2	c.3,4,1,2	d.3,4,2,1		(1)
8.	Inner part of a timber log surrounding the pitch, is called				CO 3	
	a. Sapwood	b. Cambium layer	c. Heart wood	d. None to these		(1)
9.	The cube of concrete as compared to cylinder of concrete is expected to have compressive strength				CO 3	
	a. Less by 5%	b. Less by 15%	c. More by 5%	d. More by 15%		(1)
10.	Which type of hot working gives a finer Pearlite structure?				CO 3	
	A. Annealing	B. Quenching	C. Normalising	D. Tempering		(1)
11.	Before testing setting time of cement one should test cement for				CO 3	

	a. Soundness	b. Strength	c. Fineness	d. Consistency		(1)
12.	Number of bricks required per cubic meter of brick masonry is				CO 3	
	a. 400	b. 450	c. 500	d. 550		(1)
13.	What can be done to prevent corrosion of steel?				CO 3	
	a. Painting	b. Galvanizing	c. Alloying	d. All of the above		(1)
14.	One method of curing of concrete is				CO 3	
	a. Ponding	b. Troweling	c. Compaction	d. Plastering		(1)
15.	Which method of manufacturing iron uses scrap form of iron?				CO 3	
	a. Electric arc	b. Blast furnace	c. Open hearth	d. Electrolysis		(1)
16.	What is done to impart necessary properties to steel?				CO 3	
	a. Hot Workin	b. Cold Working	c. Galvanizing	d. Electrolysis		(1)
17.	Secondary Rocks are product of Which action ?				CO 1	
	a. Wearing	b. Weathering	c. Abrasion	d. None of these		(1)
18.	Petrography deals with				CO 1	
	a. Descriptive parts of rock & petrogeny	b. Parts of rock	c. Petrogeny	d. Origin of Rock		(1)
19.	A delta is made up of sediments _____				CO 2	
	a. Deposited at the mouth of a river	b. Deposited on the inside of a meander loop	c. Deposited at a mountain front	d. Deposited on the outside of a meander loop		(1)
20.	Potholes in river bottom bedrock are formed by _____				CO 1	
	a. The impacy of a large rock moved by a strong current which makes a "crater"	b. The grinding action of a pebble or cobble in a swirling eddy	c. Cascading water from a waterfall which wears away the rock	d. None of the above		(1)
21.	Barysphere is identified in				CO 2	
	a. Above Lithosphere Accessible Part	b. Below Lithosphere inaccessible part	c. Below Lithosphere accessible part	d. None of the above		(1)
22.	At a bend in a river, _____ occurs on the outside of the bend and _____ occurs on the inside of the bend.				CO 1	
	a. Erosion ..... deposition	b. Deposition ..... erosion	c. Erosion .....erosion	d. Deposition ..... deposition		(1)
23.	loosening and breaking of rock masses by the pressure of glacier ice is known as				CO 1	
	a. Glacier quarring	b. Glacier plucking	c. Glacier abrasion	d. Glacier erosion		(1)
24.	swallow holes made by ground water is				CO 1	
	a. Sinkholes	b. Crag	c. Dolines	d. Potholes		(1)
25.	Due to marine erosion the Seawater enters the inland spaces and form the _____				CO 1	
	a. Headlands	b. Cirques	c. Bays	d. None of the above		(1)
26.	Glaciers are capable of				CO 1	
	a. significant erosion	b. significant deposition	c. significant modification of landscapes	d. all of these		(1)
27.	In what types of rock do most caves form?				CO 2	
	a. granite	b. shale	c. limestone	d. sandstone		(1)

28.	Groundwater represents how much of the world's fresh water supply?				CO 2	
	a. about 1%	b. about 5%	c. about 20%	d. about 50%		(1)
29.	Particles that roll and slide along the river bottom are called _____.				CO 1	
	a. bed load	b. suspended load	c. dissolved load	d. none of the above		(1)
30.	Granite like rocks suitable for foundation because of .....				CO 1	
	a. Attractive	b. Water Replant	c. Durable, Hard & free from weak plane	d. All the above		(1)
31.	Cone shaped accumulation of stream deposits that are commonly found at places where small intermittent streamlets coming down from hill slopes enter the low lands are coined as?				CO 1	
	A. Natural Levees	B. Stream Terraces	C. Alluvial Fans	D. Pot holes		(1)
32.	Unconsolidated, un-stratified and porous accumulation of particles by wind is termed as				CO 1	
	a. Levees	b. Valley	c. Loess	d. Dunes		(1)
33.	_____ involves incorporating the spatial positions of the major formation boundaries, including the effects of faulting, folding, and erosion				CO 2	
	a. Structural framework	b. Rock type	c. Reservoir quality	d. Fluid saturation		(1)
34.	_____ is used to determine the variation in nature of subsurface materials with increasing depths				CO2	
	a. Geodetic survey	b. Geophones	c. Electrical profiling	d. Electrical sounding		(1)
35.	_____ is an unassorted mixture of boulders and clay having an undisputed glacial origin				CO 1	
	A. Crag	B. Drift	C. Till	D. Tail		(1)
36.	Excess of silica makes brick				CO 3	
	a. Brittle on burning	b. To melt on burning	c. To crack on drying	d. To warp		(1)
37.	What type of concrete uses a high pressure jetting system for concreting?				CO 3	
	a. Vacuum Concrete	b. Fiber reinforced concrete	c. Shotcrete	d. Polymer concrete		(1)
38.	Deep Deposition forms _____				CO 1	
	a. Beaches	b. Splits and Bars	c. Tombola	d. Coral reeves		(1)
39.	What does not deal with sea-level changes by geologic studies?					
	a. Stacks	b. Estuaries	c. Leeves	d. Beaches		(1)
40.	Intake of CO <sub>2</sub> by plants are called as					
	a. transpiration	b. evaporation	c. disinfection	d. dilution		(1)

**PART B(8 X 5 = 40 MARKS) (ANSWER ANY EIGHT)**

41.	Explain manufacturing process of bricks	CO 2	(5)
42.	Write about any 2 tests on concrete.	CO 2	(5)
43.	Name the different methods of water proofing methods and demonstrate any two methods	CO 3	(5)
44.	Describe the effects of faulting	CO 2	(5)
45.	Define fault and faulting, fold and folding and joints	CO 1	(5)
46.	Sketch a neat layout of anatomy of fold	CO 1	(5)

47.	What are potholes? How are they formed?	CO 1	(5)
48.	Explain external and internal causes of landslides	CO 2	(5)
49.	Explain the formation of sedimentary rocks	CO 1	(5)
50.	What do you understand by primary and secondary structures	CO 2	(5)
<b>PART C( 2 X 10 = 20 MARKS) (ANSWER ANY TWO)</b>			
51.	Explain the manufacturing process of concrete	CO 1	(10)
52.	What is meant by engineering geology and geological modelling? Why are they important?	CO 2	(10)
53.	Elaborate different geographic features caused by glacial erosion?	CO 4	(10)

CO 1 – Classify and appreciation of the geologic processes related to the formation of different soils and rocks

CO 2 – define physical and mechanical soil properties commonly used in engineering practice

CO 3 – to impart knowledge on basic building materials

ALL THE BEST