QUESTION BANK 2016



SIDDHARTH GROUP OF INSTITUTIONS :: PUTTUR

Siddharth Nagar, Narayanavanam Road – 517583

QUESTION BANK (DESCRIPTIVE)

Subject with Code :Concrete Technology (13A01503)Course & Branch: B.Tech - CE Year &

Sem:III-B.Tech & I-Sem Regulation: R13

<u>UNIT –III</u>

SPECIAL CONCRETE

1.	a. What is light weight concrete? How is it produced?	4M	
	b. What are the light weight aggregate concrete?	3M	
	c. Explain workability scenario in light weight aggregate concrete?	3M	
2.	Explain i) Cellular concrete ii) No-fineness concrete	5M	
	iii)High density concrete iv) Fibre Reinforced concrete	5M	
3.	a. What are different types of fibres used in the production of Fibre Reinforced concre	ete? 5M	
	b. With respect Fibre Reinforced concrete explain following terms.	5M	
	i)Aspect ratio ii) Percentage volume of fibre iii) Balling.		
4.	a. What are various factors affecting properties of Fibre Reinforced concrete?	5M	
	b. Write applications of Fibre Reinforced concrete?	5M	
5.	a. Explain polymer concrete?	5M	
	b. Explain types of polymer concrete?	5M	
6.	a. Explain properties of polymer concrete?	5M	
	b. Explain application of polymer concrete?	5M	
7.	. Explain high performance concrete and what are the advantages of high performance concrete over		
	conventional concrete?	10M	
8.	What is self-consolidating concrete? What are the materials used for SCC.	10M	
9.	Explain self-healing concrete and bacterial concrete?	5M	
10. a. List some of the artificial light weight aggregate2N			
	b. Define light weight concrete.	2M	
	c. Define high performance concrete	2M	
	d. Define Admixtures	2M	
	e. List different materials used for self-healing concrete.	2M	

Prepared by: Vinodh Kumar Balaji.

Concrete Technology (13A01503)

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Sent. III-D. Feeli & F-Seni Regulation. R15		
<u>UNIT– III</u>		
1. The characteristic strength of M ₅₀ concrete is	[]
A. 40 N/mm^2 B. $60 \text{ N/mm}^2 \text{ C}$. $50 \text{ N/mm}^2 \text{ D}$. 30 N/mm^2		
The cylindrical strength of concrete is times the strength of the cube	Г	1
A_{10} D_{15} C_{08} D_{8}	L	1
A. 10 D. 1.3 C. 0.0 D. 0		
3. Wp and Wf are the weights of a cylinder containing partially compacted concrete. If the compaction factor is $\begin{pmatrix} W_P \\ W_f \end{pmatrix}$ 0.95, the workabilit of concrete is]	l and ty	
A. extremely low B. very low C. Low D. High		
. The risk of segregation is more for	[]
A. wetter mix B. larger proportion of maximum size aggregate		
C. coarser grading D. all the above		
. The increased cohesiveness of concrete, makes it	[]
A. less liable to segregation B. more liable to segregation		
C. more liable to bleeding D. more liable for surface scaling in frosty weath	er	1
A sin entreining ecent		
A. an-entraining agent B. roanning agent C. ony-agent D. a	II the a	1
A desired strength and workability B desired durability	L	J
C water tightness of the structure D all the above		
Curing	ſ	1
A. reduces the shrinkage of concrete B. preserves the properties of conc	crete	1
C. prevents the loss of water by evaporation D. all of the above		
While compacting the concrete by a mechanical vibrator, the slump should not exc	eed []
A. 2.5 cm B.5.0 cm C. 7.5 cm D. 10 cm		
0. Curing a concrete for long period ensures better	[]
A. volume stability B. Strength C. water resistance D. all the above		
1. The factor which affects the design of concrete mix is	[]
A fineness modulus B water – cement ratio		
C slump D all the above		
2. Commonly employed test for measurement of cement workability is	[]
A. Slump test B. Kelley bell test C. Vee consists meter	D.	All
3. Slump test is done for]]
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A. clav B. Sand C. lime D. concrete	
14. Pick up the correct statement from the following:	r 1
A. The weight of ingredients of concrete mix, is taken in kilograms	
B. Water and aggregates are measured in liters	
C. 20 bags of cement make one tonne D. All the above	
15. Concrete mainly consists of	[]
A. cement B. Aggregates C. Admixture D. all the above	
16. Workability of concrete is measured by	[]
A. Vicat apparatus test B. Slump test	
C. Minimum void method D. Talbot Richard test	
17. Internal friction between the ingredients of concrete, is decreased by using	[]
A. less water B. fine aggregates	
C. rich mix D. more water and coarse aggregates	
18. The property of separation of cement paste from concrete while	
placing the concrete is called	[]
A. Compaction B. Segregation C. Bleeding D. Shrinkage	
19. To prevent segregation, the concrete should not be thrown from a height of more than	[]
A. 0.25m B. 0.5m C. 1.0m D. 1.5m	
20. Factors affecting Workability of concrete	[]
A Water Content B Mix Proportions	
C Size, Shape & Surface structure D All of the above	
21. The compaction of concrete, improves	[]
A. Density B. Strength C. Durability D. all the above.	
22. Segregation is responsible for	[]
A. honey-combed concrete B. porous layers in concrete	
C. surface scaling in concrete D. All the above	
23. Addition of pozzolana to cement	
A. decreases workability B. increases strength	
C. increases heat of hydration D. Increase workability	
24. Permissible compressive strength of M 150 concrete grade is	
A. 1000 kg/cm ² B. 1500 kg/cm ² C. 2000 kg/cm ² D. 2500) kg/cm ²
25. Pozzolana cement is used with confidence for construction of	Ĺ
A. dams B. massive foundations C. Abutments D. R.C.C. structures	r 1
26. Efflorescence in cement is caused due to an excess of	Ĺ
A. Alumina B. iron oxide C. Magnesium Oxide D. alkalis	r 1
27. The diameter of the vical plunger is 10 mm and its length varies from A_{20} mm to 20 mm to 20 mm to 20 mm to 60	
A. 20 mm to 30 mm B. 30 mm to 40 mm C. 40 mm to 50 mm D. 50 mm to 60	Jmm
28. Incalcium aluminate	
A. reacts rast with water B. generates ress near of nydration	
D. does not contribute to develop ultimate strength	
20 According to Water Comment Datio Law, the strength of workship plastic concrete	۲ I
A depends upon the amount of water used in the mix	LJ
A. depends upon the anount of water used in the first B. does not depend upon the quality of compart mixed with aggregates	
D. does not depend upon the quanty of cement mixed with aggregates	
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C. does not depend upon the quantity of cement mixed with aggregates D. all the above	
30. Pick up the correct statement from the following:]
A. High percentage of C_3S and low percentage of C_2S cause rapid hardening	
B. High percentage of C_3S and low percentage of C_2S make the cement less resistive attack	to chemical
C. Low percentage of C_3S and high percentage of C_2S contribute to slow hardening D. None	
31. The factor which affects workability, is	1
A. water content and its temperature B. shape and size of the aggrega	tes
C. grading and surface textures of the aggregates D. All the above	
32. The cement whose strength is a little lower than the ordinary cement during the	
first three months but attains afterwards the same strength is known as	1
A low-heat Portland cement B rapid hardening Portland cement	1
C Portland blast slag cement D none of these	
33 Pick up the correct statement from the following:	1
A Water enables chemical reaction to take place with cement	1
B Water lubricates the mixture of gravel sand and cement	
D . Water indirectes the initiate of graver, sand and certain C . Only a small quantity of water is required for hydration of computed to the state of the sta	
D. Strength of concrete structure lergely depends upon its workshility	
24. Biok up the correct statement from the following:	1
A Calcium ablarida acta as a retardar	1
A. Calcium chloride acts as a retaider B. Gypsum acts as a retaider	
C. Calcium chloride acts as an accelerator D. Boun C. and D.	1
35. Joints in concrete structures, are provided	J
A. to reduce the shrinkage crackslikely to be developed due to evaporation of water	
B. to minimize the change in the dimensions of the slab	
C. to minimize the necessary cracking D. all the above.	
36. High temperature]
A. increases the strength of concrete B. decreases the strength of conc	crete
C. has no effect on the strength of concrete D. none of these.	
37. The bulk density of aggregates, is generally expressed as]
A. tonnes/cubic meter B. kg/cubic meter C. kg/liter D. g/cm ³	-
38. Determination of Moisture Content of aggregate by]
A. Drying method B. Displacement method	
C. Calcium Carbide method D. All of the above.	
39. Factors which promote alkali aggregate reaction are []
A. Reactive type of aggregate B. High alkali content	
C. Availability of Moisture D. All the above	
40. In concrete the fine aggregates is used to []
A. Fill up the voids in cement B. Fill up the voids in coarse aggregate	
C. Fill up the voids in sand D. All the above	

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