National Testing Agency

Question Paper Name: Sustainable Construction Materials and Techniques 16th February 2020 Shift 1

Subject Name: Sustainable Construction Materials and Techniques

Creation Date: 2020-02-16 12:58:18

Duration: 180 100 **Total Marks: Display Marks:** Yes

Sustainable Construction Materials and Techniques

Group Number:

28860737 Group Id:

Group Maximum Duration: 0 **Group Minimum Duration:** 120 **Show Attended Group?:** No **Edit Attended Group?:** No **Break time:** 0 **Group Marks:** 100 Is this Group for Examiner?: No

Sustainable Construction Materials and Techniques

28860740 Section Id:

Section Number: 1 **Section type:** Online **Mandatory or Optional:** Mandatory **Number of Questions:** 100 **Number of Questions to be attempted:** 100 **Section Marks:** 100

Sub-Section Number:

28860743 **Sub-Section Id: Question Shuffling Allowed:** Yes

Question Number: 1 Question Id: 2886073345 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

The word Sustainability defines

- A. The capability of a system to endure and maintain itself
- B. The responsibility of a System to endure and maintain itself
- C. The capability of a system to entertain and manage itself
- D. The responsibility of a system to ensure and entertain itself

Options:

28860713353.1

28860713354, 2

28860713355. 3 28860713356. 4

Question Number: 2 Question Id: 2886073346 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

In which year the concept of sustainability is taken has the central point of discussion in the General Assembly of United Nation?

A. 1977

B. 1967

C. 1997

D. 1987

Options:

28860713357. 1

28860713358. 2

28860713359.3

28860713360.4

Question Number: 3 Question Id: 2886073347 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

Which country is having largest ecological foot print?

A. USA

B. UK

C. India

D. China

Options:

28860713361.1

28860713362. 2

28860713363.3

28860713364.4

Question Number: 4 Question Id: 2886073348 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

ISO 14040 series deals with

A. Life Cycle Assessment

- B. Environmental Labels and Declarations
- C. Environmental Management Systems
- D. Environmental Performance Evaluation

Options:

28860713365.1

28860713368, 4

Question Number: 5 Question Id: 2886073349 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

What should be observed ideally when two bricks are struck together?

A. Dull sound

B. Sides shatter

C. Clear ringing sound

D. Brick breaks

Options:

28860713369. 1

28860713370. 2

28860713371.3

28860713372.4

 $Question\ Number: 6\ \ Question\ Id: 2886073350\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$

Correct Marks: 1 Wrong Marks: 0

The process of injecting the suitable fluid (colloidal solution, chemicals etc.) under pressure to fill voids, crack fissures is called

- A. Grouting
- B. Pumping
- C. Plastering
- D. Repairing

Options:

28860713373.1

28860713374. 2

28860713375.3

28860713376.4

 $Question\ Number: 7\ \ Question\ Id: 2886073351\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$

Correct Marks: 1 Wrong Marks: 0

When ecological foot print is more than the bio-capacity, then it is called

- A. Ecological Reserve
- B. Ecological Deficit
- C. Sustainable Ecology
- D. Ecological Demand

Options:

28860713377.1

28860713379.3 28860713380.4 Correct Marks: 1 Wrong Marks: 0 A. 1.00 B. 1.25 C. 0.8

Question Number: 8 Question Id: 2886073352 Question Type: MCQ Option Shuffling: No

One ton of cement produces tons of Carbondioxide (CO2)

D. 1.5

Options:

28860713381. 1

28860713382. 2

28860713383. 3

28860713384.4

Question Number: 9 Question Id: 2886073353 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

Which one is not a chemically inactive pore filling material?

A. Aluminum

B. Chalk

C. Talc

D. Fullers earth

Options:

28860713385, 1

28860713386, 2

28860713387.3

28860713388.4

Question Number: 10 Question Id: 2886073354 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

As per the IS 3495, the result of efflorescence test is declared as Slight when percentage of the area of brick is covered with salt

A. Less than 5%

B. 5 to 8%

C. 10%

D. More than 15%

Options:

28860713389. 1

28860713390, 2

28860713392.4 Question Number: 11 Question Id: 2886073355 Question Type: MCQ Option Shuffling: No Correct Marks: 1 Wrong Marks: 0 BIM technology has evolved from basic 3D dimensions to more sophisticated dimensions A. 4D B. 5D C. 6D D. 7D **Options:** 28860713393. 1 28860713394. 2 28860713395.3 28860713396.4 Question Number: 12 Question Id: 2886073356 Question Type: MCQ Option Shuffling: No Correct Marks: 1 Wrong Marks: 0 Penetration resistance test is also known as A. Willam Prob test B. Mic Prob test C. Windsor Prob test D. Easy Prob test **Options:** 28860713397.1 28860713398, 2 28860713399.3 28860713400.4 Question Number: 13 Question Id: 2886073357 Question Type: MCQ Option Shuffling: No Correct Marks: 1 Wrong Marks: 0 The minimum water to cement ratio for cement concrete to hydrate is A. 0.65 B. 0.5 C. 0.38 D. 0.27 **Options:** 28860713401. 1 28860713402. 2

28860713404, 4

Question Number: 14 Question Id: 2886073358 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0 Specific Gravity of silica fume.

A. 2.38

B. 2.65

C. 2.94

D. 2.22

Options:

28860713405. 1

28860713406. 2

28860713407. 3

28860713408.4

 $Question\ Number: 15\ Question\ Id: 2886073359\ Question\ Type: MCQ\ Option\ Shuffling: No$

Correct Marks: 1 Wrong Marks: 0

BIM Stands for

- A. Building Infrastructure Maintenance
- B. Building Infrastructure Management
- C. Building Information Management
- D. Building Information Modelling

Options:

28860713409.1

28860713410. 2

28860713411. 3

28860713412. 4

Question Number: 16 Question Id: 2886073360 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

What you mean by nondestructive test?

- A. It detects flaw in materials without impairing their usefulness
- B. It detects flaws that impair the use of the materials such as pressure testing
- C. It detects flaws in materials with impairing their usefulness
- D. It detects flaws that do not impair the use of the materials such as pressure testing

Options:

28860713413. 1

28860713415. 3 28860713416. 4

Question Number: 17 Question Id: 2886073361 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

What is the percentage of air by volume in Air Entraining Cement?

A. 3-4

B. 10-11

C. 7-8

D. 9

Options:

28860713417. 1

28860713418. 2

28860713419.3

28860713420.4

Question Number: 18 Question Id: 2886073362 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

Concrete containing silica fume can have very _____ strength and can be very

- A. Low, Durable
- B. High, Durable
- C. Low, brittle
- D. High, brittle

Options:

28860713421.1

28860713422. 2

28860713423.3

28860713424.4

Question Number: 19 Question Id: 2886073363 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

What we mean by economic sustainability growth?

- A. Is an economical growth that help the people to have more money.
- B. It ensures that our economic growth maintains a healthy balance with our ecosystem.
- C. When the people pay to the governments to have more money for the community.
- D. This growth is god because the people spent the money.

Options:

28860713425.1

28860713428.4

Question Number: 20 Question Id: 2886073364 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

As per IGBC Green Building Certification, to achieve platinum rating for new building, the points required is

A. 40-49

B. 50-59

C. 60-74

D. 75-100

Options:

28860713429. 1

28860713430. 2

28860713431.3

28860713432.4

Question Number: 21 Question Id: 2886073365 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

Volume of permeable voids of coconut shell concrete ranges about

A. 40% - 50%

B. 23% - 25%

C. 16% - 18%

D. 20% - 22%

Options:

28860713433, 1

28860713434. 2

28860713435.3

28860713436.4

 $Question\ Number: 22\ \ Question\ Id: 2886073366\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$

Correct Marks: 1 Wrong Marks: 0

Partial usage of GGB slag in the concrete results in

- A. Increase in hydration heat
- B. Decrease in hydration heat
- C. Decrease in durability
- D. Increase in permeability

Options:

28860713437. 1

28860713439. 3 28860713440. 4

Question Number: 23 Question Id: 2886073367 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

The purpose of sustainable model is to

- A. invest money to have a better life
- B. contaminate the environment due to development activities
- C. utilize resource in the best way
- D. Ensure fair distribution and efficient access of resources.

Options:

28860713441. 1

28860713442. 2

28860713443.3

28860713444, 4

Question Number: 24 Question Id: 2886073368 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

A Comprehensive blueprint ______ discuss about the action to be taken globally, nationally and locally by governments of member nations of UN and those major groups in every area in which humans' impact on the environment.

- A. GHG CoP Document
- B. Agenda 21
- C. IPCC
- D UNEP

Options:

28860713445. 1

28860713446. 2

28860713447. 3

28860713448. 4

Question Number: 25 Question Id: 2886073369 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

The density of Structural LWC (light weight concrete) is less than

- A. 2400 kg/m³
- B. 1840 kg/m³
- C. 1480 kg/m³
- D. 4200 kg/m³

Options:

28860713449. 1

28860713452, 4

Question Number: 26 Question Id: 2886073370 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

The cement concrete, from which entrained air and excess water are removed after placing it in position, is called

- A. Vacuum concrete
- B LWC
- C. Pre-stressed concrete
- D. Sawdust concrete

Options:

28860713453. 1

28860713454. 2

28860713455.3

28860713456, 4

Question Number: 27 Question Id: 2886073371 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0 What does LEED stand for?

- A. Leadership in Energy Efficiency Design
- B. Leadership in Energy and Environmental Design
- C. Leadership in Environmental Efficiency Design
- D. Leadership in Environmental and Energy Design

Options:

28860713457, 1

28860713458. 2

28860713459.3

28860713460.4

 $Question\ Number: 28\ Question\ Id: 2886073372\ Question\ Type: MCQ\ Option\ Shuffling: No$

Correct Marks: 1 Wrong Marks: 0

Which of the following is NOT a local voluntary programme benchmarking building performance?

- A. Building Environmental Assessment Method (BEAM).
- B. Green Rating for Integrated Habitat Assessment (GRIHA)
- C. Hong Kong Energy Efficiency Registration Scheme for Buildings (HKEERSB)
- D. Leadership in Environmental and Energy Design.

Options:

28860713461. 1

28860713462, 2

28860713464.4

Question Number: 29 Question Id: 2886073373 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

A legally binding agreement between two or more nation states relating to environment

is:

- A. Bilateral Environmental Agreement
- B. International Environmental Agreement
- C. Multinational Agreement
- D. Multilateral Environmental Agreement

Options:

28860713465. 1

28860713466. 2

28860713467.3

28860713468, 4

Question Number: 30 Question Id: 2886073374 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

Which of these commissions brought the concept of sustainable development?

- A. World Commission on Environmental and Development (WCED)
- B. Indian Commission on Environmental and Development (ICED)
- C. United Nation Commission on Environmental and Development (UNCED)
- D. Russian Commission on Environmental and Development (RCED)

Options:

28860713469, 1

28860713470. 2

28860713471.3

28860713472.4

Question Number: 31 Question Id: 2886073375 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

When observed efflorescence is more than 10% but less than 50% of the exposed area, it is:

- A. Moderate efflorescence
- B. Serious efflorescence
- C. Heavy efflorescence
- D. Light efflorescence

Options:

28860713473.1

28860713476.4

Question Number: 32 Question Id: 2886073376 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

Which of the following is correct, if we only achieve two out of three pillars of Sustainable Development?

- A. Social + Economic Sustainability = Equitable
- B. Social + Environmental Sustainability = Bearable
- C. Economic + Environmental Sustainability = Viable
- D. All the above

Options:

28860713477, 1

28860713478, 2

28860713479.3

28860713480.4

Question Number: 33 Question Id: 2886073377 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

Workability can be resolved with

- A. not using of plasticizers
- B. use of plasticizers
- C. the use of both plasticizers and super plasticizers
- D. not using of both plasticizers and super plasticizers

Options:

28860713481.1

28860713482. 2

28860713483.3

28860713484.4

Question Number: 34 Question Id: 2886073378 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

Which of the following increases the water table?

- A. Usage of waterless urinals
- B. Usage of low flow fixtures
- C. Reuse of treated water
- D. Rain water harvesting

Options:

28860713485.1

28860713486, 2

28860713488. 4

Question Number: 35 Question Id: 2886073379 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

Which of the following applies to the quality of treated wastewater in an IGBC Green

Factory Building?

A. Central pollution control board

B. Environmental Protection Agency

C. Tertiary standards

D. Local government regulations

Options:

28860713489. 1

28860713490.2

28860713491.3

28860713492.4

Question Number: 36 Question Id: 2886073380 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

To calculate Carbon footprint in precise manner the technique used is

A. to derive from emissions factors

B. Life Cycle Assessment (LCA)

C. Input-Output Life Cycle Assessment (IO-LCA)

D. the footprints of products and services

Options:

28860713493. 1

28860713494. 2

28860713495.3

28860713496.4

Question Number: 37 Question Id: 2886073381 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

Economic Sustainability is defined as the condition to

- A. spent the money in things that don't benefit the society.
- B. the use of renewable resources and to use in things that the society needs.
- C. The use of various strategies for employing existing resources optimally so that a responsible and beneficial balance can be achieved over the longer term.
- D. to buy things and know the problem of the money that we have

Options:

28860713497. 1

28860713500.4

Question Number: 38 Question Id: 2886073382 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

Which of those factors don't contribute to the growth of economic sustainability?

- A. Technology
- B. Poverty
- C. Economics
- D Finance

Options:

28860713501. 1

28860713502. 2

28860713503.3

28860713504.4

Question Number: 39 Question Id: 2886073383 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

The main purpose of economic sustainability is to

- A. reduce carbon emissions.
- B. define strategies that promises the utilization of solid-economic resource to their best advantages. like agriculture, industry etc.,
- C. continue with existing mining practices.
- D. spent the energy without any accountability

Options:

28860713505, 1

28860713506, 2

28860713507.3

28860713508.4

Question Number: 40 Question Id: 2886073384 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

Rib meshes are used in

- A. Insulated wall forming system
- B. EPS based formwork system
- C. Plaswall panels
- D. Coffer formwork system

Options:

28860713509.1

28860713512.4

Question Number: 41 Question Id: 2886073385 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

The sum of percentages of all deleterious materials in the aggregate shall not exceed

A. 5%

B. 10%

C. 15%

D. 20%

Options:

28860713513. 1

28860713514. 2

28860713515, 3

28860713516.4

Question Number: 42 Question Id: 2886073386 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

The resistance of an aggregate to the effect of hydration of cement and weather is called

A. crushing value

B. impact value

C. abrasion value

D. soundness

Options:

28860713517, 1

28860713518, 2

28860713519.3

28860713520.4

Question Number: 43 Question Id: 2886073387 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

According to the rule of water cement ratio, the strength of concrete wholly depends upon

- A. the quality of cement
- B. the quality of cement mixed with aggregate
- C. the amount of water used in preparation of concrete mix
- D. all of the above

Options:

28860713521.1

28860713523. 3 28860713524. 4

 $Question\ Number: 44\ \ Question\ Id: 2886073388\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$

Correct Marks: 1 Wrong Marks: 0

By burning of lignite or sub - bituminous coal which class of Fly ash is produced?

A. Class A

B. Class B

C. Class C

D. Class D

Options:

28860713525.1

28860713526.2

28860713527. 3

28860713528.4

Question Number: 45 Question Id: 2886073389 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

The CaO present in the Class F fly ash is less than

A. 1%

B. 5%

C. 1.5%

D. 3.5%

Options:

28860713529.1

28860713530. 2

28860713531.3

28860713532.4

Question Number: 46 Question Id: 2886073390 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

Normal red bricks have water absorption of about

A. 2% - 5%

B. 5% - 15%

C. 15%-25%

D. 25% - 35%

Options:

28860713533. 1

28860713536.4 Question Number: 47 Question Id: 2886073391 Question Type: MCQ Option Shuffling: No Correct Marks: 1 Wrong Marks: 0 Fly ash bricks has water absorption of about A. 2% - 5% B. 6% - 12% C. 15% - 25% D. 30% - 35% **Options:** 28860713537. 1 28860713538, 2 28860713539.3 28860713540.4 Question Number: 48 Question Id: 2886073392 Question Type: MCQ Option Shuffling: No Correct Marks: 1 Wrong Marks: 0 The minimum compressive strength for the brick is N/mm² A. 1.2 B. 3.2 C. 3.4 D. 3.5 **Options:** 28860713541.1 28860713542.2 28860713543.3 28860713544, 4 Question Number: 49 Question Id: 2886073393 Question Type: MCQ Option Shuffling: No Correct Marks: 1 Wrong Marks: 0 The consumption of cement for the construction of 1 m3 Fly ash brickwork will be A. 65kg B. 12kg C. 24kg 48kg **Options:** 28860713545. 1 28860713546, 2

28860713535, 3

28860713548.4

Question Number: 50 Question Id: 2886073394 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

The restricted size of crushed coconut shell for the usage in coconut shell aggregate concrete is

concrete is

A. 24 mm

B. 12 mm

C. 6 mm

D. 3 mm

Options:

28860713549. 1

28860713550, 2

28860713551.3

28860713552.4

 $Question\ Number: 51\ \ Question\ Id: 2886073395\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$

Correct Marks: 1 Wrong Marks: 0

The average specific gravity of coconut shell as aggregate is ranges about

A. 0.2-0.5

B. 0.8-1

C. 1.05 - 1.20

D. 1.50 - 2.50

Options:

28860713553.1

28860713554. 2

28860713555, 3

28860713556.4

Question Number: 52 Question Id: 2886073396 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

The density of coconut shell aggregate ranges about

A. 600 to 700 kg/m³

B. 300 to 400 kg/m³

C. 200 to 300 kg/m³

D. 100 to 200 kg/m³

Options:

28860713557.1

28860713559.3 28860713560.4 A. Low volume

Question Number: 53 Question Id: 2886073397 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

Reduction in the volume due to shrinkage causes

- B. Volumetric strain
- C. Volumetric stress
- D. W/c ratio

Options:

28860713561. 1

28860713562. 2

28860713563. 3

28860713564.4

Question Number: 54 Question Id: 2886073398 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

How many types of shrinkages, caused due to cooling and carbonation?

- A
- B. 2
- C 3
- D. 4

Options:

28860713565.1

28860713566, 2

28860713567.3

28860713568.4

Question Number: 55 Question Id: 2886073399 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

The slurry, in its movement down the kiln, encounters a progressively higher temperature. At first, the water is driven off and is liberated.

- SiO2 A.
- CO₂ B.
- C. Gypsum
- D. CaO

Options:

28860713569. 1

28860713572.4

Question Number: 56 Question Id: 2886073400 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

Workability of concrete can be improved by the addition of

A. Iron

B. Sodium

C. Zinc

D. Sulphur

Options:

28860713573. 1

28860713574.2

28860713575.3

28860713576, 4

Question Number: 57 Question Id: 2886073401 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

Workability of concrete is directly proportional to

A. Grading of the aggregates

B. Time of transit

C. Aggregates cement ratio

D. Water cement ratio

Options:

28860713577. 1

28860713578. 2

28860713579.3

28860713580.4

Question Number: 58 Question Id: 2886073402 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

Which cement is used for formwork that can be removed earlier and reused

- A. Rapid Hardening Cement
- B. Colored Cement
- C. High Alumina Cement
- D. Low Heat Cement

Options:

28860713581.1

28860713584, 4

Question Number: 59 Question Id: 2886073403 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

Which cement is used for works economic where considerations is predominant? Reservoirs, retaining walls, swimming pools, dams, bridges, piers etc.

- A. Waterproof Portland Cement
- B. Colored Cement
- C. High Alumina Cement
- D. Blast Furnace Slag Cement

Options:

28860713585. 1

28860713586, 2

28860713587. 3

28860713588.4

Question Number: 60 Question Id: 2886073404 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

Which test can be performed without skilled labor

- A Probe test
- B. Bend liquid test
- C. Dye penetrant test
- D Torsion test

Options:

28860713589, 1

28860713590. 2

28860713591.3

28860713592.4

Question Number: 61 Question Id: 2886073405 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

Reinforced cement concrete is equally strong in taking

- A. Tensile and compressive stresses
- B. Compressive and shear stresses
- C. Tensile, compressive and shear stresses
- D. Tensile and shear stresses

Options:

28860713593.1

28860713596, 4 Question Number: 62 Question Id: 2886073406 Question Type: MCQ Option Shuffling: No Correct Marks: 1 Wrong Marks: 0 Self-Compacting Concrete CC has ______ yield stress. A. Low B. High C. Medium D. Very high **Options:** 28860713597. 1 28860713598. 2 28860713599.3 28860713600.4 Question Number: 63 Question Id: 2886073407 Question Type: MCQ Option Shuffling: No Correct Marks: 1 Wrong Marks: 0 Which among the following are benefits of Tunnel forming technique? A. Quality, Time saving & Suitability B. Strength, Cost efficiency & Design C. Transportation, labor & Cost efficiency D. Safety and time saving **Options:** 28860713601. 1 28860713602. 2 28860713603.3 28860713604.4 Question Number: 64 Question Id: 2886073408 Question Type: MCQ Option Shuffling: No Correct Marks: 1 Wrong Marks: 0 The cement concrete, from which entrained air and excess water are removed after placing it in position, is called A. Vacuum concrete B. LWC C. Prestressed concrete D. Sawdust concrete **Options:** 28860713605. 1 28860713606, 2

28860713607.3 28860713608.4 Question Number: 65 Question Id: 2886073409 Question Type: MCQ Option Shuffling: No Correct Marks: 1 Wrong Marks: 0 The light-weight concrete is prepared by A. Mixing Portland cement with sawdust in specified proportion in the concrete B. Using coke-breeze, slag as aggregate in the concrete C. Mixing Al in the concrete D. Mixing Fe in the concrete **Options:** 28860713609. 1 28860713610. 2 28860713611.3 28860713612.4 Question Number: 66 Question Id: 2886073410 Question Type: MCQ Option Shuffling: No Correct Marks: 1 Wrong Marks: 0 Self-Compacting Concrete has ______ segregation resistance. A. Good B. Bad C. Average D. Poor **Options:** 28860713613. 1 28860713614. 2 28860713615.3 28860713616. 4 Question Number: 67 Question Id: 2886073411 Question Type: MCQ Option Shuffling: No Correct Marks: 1 Wrong Marks: 0 Water cement ratio is A. Volume of water to the volume of cement B. Volume of water to the volume of concrete C. Volume of concrete to the volume of cement D. Volume of water to the volume of aggregates **Options:** 28860713617. 1 28860713618, 2 28860713619.3

28860713620.4 Question Number: 68 Question Id: 2886073412 Question Type: MCQ Option Shuffling: No Correct Marks: 1 Wrong Marks: 0 For concrete exposed to a very aggressive environment the w/c should be lower than A. 1 B. 0.5 C. 0.4 D. 0.8 **Options:** 28860713621. 1 28860713622. 2 28860713623.3 28860713624. 4 Question Number: 69 Question Id: 2886073413 Question Type: MCQ Option Shuffling: No Correct Marks: 1 Wrong Marks: 0 Mining activity is generally requiring A. Drift and slope method B. Drilling and blasting method C. Shaft method D. Open-pit method **Options:** 28860713625. 1 28860713626. 2 28860713627.3

28860713628.4

Question Number: 70 Question Id: 2886073414 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

At the time of aggregate extraction, which one is the most affecting directly to the human resources

- A. Blasting
- B. Mining reclamation
- C. Noise and dust
- D. Ground and surface water

Options:

28860713629.1

28860713630. 2

Question Number: 71 Question Id: 2886073415 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

The concrete having four-hours of fire resistance are considered as

- A. First class
- B. Second class
- C. Third class
- D. Fourth class

Options:

28860713633. 1

28860713634. 2

28860713635.3

28860713636.4

Question Number: 72 Question Id: 2886073416 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

- . The Development of strength in the concrete is controlled by
- A. The inter particle bond
- B. Strength of the aggregate
- C. Porosity of the paste
- D. All of the above

Options:

28860713637.1

28860713638. 2

28860713639.3

28860713640.4

 $Question\ Number: 73\ \ Question\ Id: 2886073417\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$

Correct Marks: 1 Wrong Marks: 0

. Comparing with the conventional concrete, the flexural strength of the coconut shell concrete is

- A. 50% higher
- B. 30% higher
- C. 50% lower
- D. 30% lower

Options:

28860713641. 1

28860713642. 2

Question Number: 74 Question Id: 2886073418 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

. Which among these following treatments is practiced before using the coconut shell as aggregate?

- A. Water absorption treatment
- B. Water adsorption treatment
- C. Thermal treatment
- D. Chemical treatment

Options:

28860713645. 1

28860713646. 2

28860713647.3

28860713648.4

Question Number: 75 Question Id: 2886073419 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

The measure of unsaturated flow of fluids in the concrete is called

- A. Dry test
- B. Absorptivity test
- C. Absorptivity test
- D. Sorptivity test

Options:

28860713649. 1

28860713650, 2

28860713651. 3

28860713652.4

Question Number: 76 Question Id: 2886073420 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

- . The higher tension reinforcement ratio results in
- A. Less ductility behavior
- B. Less brittleness behavior
- C. High ductility behavior
- D. High brittleness behavior

Options:

28860713653, 1

28860713654. 2

```
Question Number: 77 Question Id: 2886073421 Question Type: MCQ Option Shuffling: No
Correct Marks: 1 Wrong Marks: 0
Comparing with the conventional concrete, the impact resistance of coconut shell concrete
is
A. Less
B. High
C. Equal
D. Moderate
Options:
28860713657. 1
28860713658. 2
28860713659.3
28860713660.4
Question Number: 78 Question Id: 2886073422 Question Type: MCQ Option Shuffling: No
Correct Marks: 1 Wrong Marks: 0
. M-Sand has type of particle shape
A. Flaky
B. Round
C. Angular
D. Cubical
Options:
28860713661. 1
28860713662. 2
28860713663.3
28860713664.4
Question Number: 79 Question Id: 2886073423 Question Type: MCQ Option Shuffling: No
Correct Marks: 1 Wrong Marks: 0
What is the total percentage of aggregates in concrete by volume?
A. 50-60%
B. 60-75%
C. 85%
D. 50%
Options:
28860713665, 1
28860713666, 2
```

Question Number: 80 Question Id: 2886073424 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

PGBS stands for:

A. Perfectly Graded Blast furnace Slag

B. Pre-Grinded Blast furnace Slag

C. Poly Granule Blast furnace Slag

D. Processed Granulated Blast furnace Slag

Options:

28860713669, 1

28860713670. 2

28860713671.3

28860713672.4

 $Question\ Number: 81\ \ Question\ Id: 2886073425\ \ Question\ Type: MCQ\ \ Option\ Shuffling: No$

Correct Marks: 1 Wrong Marks: 0

. Which of the below is a global scale environmental issue?

A. Eutrophication

B. Regional ozone

C. Pollution

D. Climate change

Options:

28860713673. 1

28860713674.2

28860713675.3

28860713676, 4

Question Number: 82 Question Id: 2886073426 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

. What are the features of Green building?

- A. Sustainable site design
- B. Energy efficiency
- C. Water efficiency
- D. All the above

Options:

28860713677. 1

28860713678. 2

28860713692.4

Question Number: 83 Question Id: 2886073427 Question Type: MCQ Option Shuffling: No Correct Marks: 1 Wrong Marks: 0 . Which of the following is NOT the concept of Green building. A. Environmentally sustainable building B. Optimal use of renewable resources C. Higher Cost than the traditional building D. Minimize environmental impacts **Options:** 28860713681. 1 28860713682. 2 28860713683.3 28860713684. 4 Question Number: 84 Question Id: 2886073428 Question Type: MCQ Option Shuffling: No Correct Marks: 1 Wrong Marks: 0 building material can be made into new products repeatedly. A. recyclable B. reusable C. repairable D. Green **Options:** 28860713685, 1 28860713686, 2 28860713687. 3 28860713688, 4 Question Number: 85 Question Id: 2886073429 Question Type: MCQ Option Shuffling: No Correct Marks: 1 Wrong Marks: 0 The energy efficient in the building is achieved through A. Plant Shady Landscaping B. Improve the Insulation in the building C. Use Compact Fluorescent Bulbs D. All the above **Options:** 28860713689. 1 28860713690. 2 28860713691. 3

Question Number: 86 Question Id: 2886073430 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

. As per IGBC green building certification, the rating level which is NOT a Green building is.

- A. Gold
- B. Platinum
- C. Silver
- D. Bronze

Options:

28860713693. 1

28860713694. 2

28860713695.3

28860713696. 4

Question Number: 87 Question Id: 2886073431 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

. Which among the following is NOT a type of Non-destructive testing?

- A. compression test
- B. visual testing
- C. ultrasonic testing
- D. eddy current testing

Options:

28860713697.1

28860713698. 2

28860713699.3

28860713700.4

Question Number: 88 Question Id: 2886073432 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

- . Which of the following statements is/are true for ultrasonic test?
- A. Complicated shapes can be easily scanned
- B. Equipment used for ultrasonic testing is portable
- C. Waves generated are health hazardous
- D. All the above statements

Options:

28860713701. 1

28860713702. 2

28860713703.3

28860713704.4

Question Number: 89 Question Id: 2886073433 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

- . GFRP rebars are one of the
- A. Fiber reinforced polymer rebars
- B. Galvanized reinforcing rebars
- C. Fusion bonded rebars
- D. Stainless steel rebars

Options:

28860713705.1

28860713706.2

28860713707.3

28860713708.4

Question Number: 90 Question Id: 2886073434 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

- . How many categories of productive surface areas considered for the ecological footprint?
- A. Five
- B. Four
- C. Three
- D. Six

Options:

28860713709. 1

28860713710.2

28860713711.3

28860713712.4

Question Number: 91 Question Id: 2886073435 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

What is the moisture content in slurry for wet process?

- A. 35-50%
- B. 12%
- C. 55-60%
- D. 100%

Options:

28860713713.1

28860713714. 2

28860713715.3

28860713716.4

Question Number: 92 Question Id: 2886073436 Question Type: MCQ Option Shuffling: No

Correct Marks: 1 Wrong Marks: 0

What is the total percentage of aggregates in concrete by volume? A. 50-60% B. 60-75% C. 85% D. 50%
Options :
28860713717. 1
28860713718. 2
28860713719. 3
28860713720. 4
Question Number: 93 Question Id: 2886073437 Question Type: MCQ Option Shuffling: No Correct Marks: 1 Wrong Marks: 0 Crushed stone, gravel and ordinary sand are examples of A. Lightweight aggregate B. Normal-weight aggregate C. Heavy-weight aggregate D. Both Normal-weight aggregate and Heavy-weight aggregate Options:
28860713721. 1
28860713722. 2
28860713723. 3
28860713724. 4
Question Number: 94 Question Id: 2886073438 Question Type: MCQ Option Shuffling: No Correct Marks: 1 Wrong Marks: 0 According to the IS456 the experimental bonding strength of CSAC (Coconut shell aggregate concrete) is A. High B. Equal C. Very High D. Very less
Options:
28860713725. 1
28860713726. 2
28860713727. 3
28860713728. 4

 $\label{eq:Question Number: 95 Question Id: 2886073439 Question Type: MCQ Option Shuffling: No Correct Marks: 1 Wrong Marks: 0$

A. Vicat apparatus test B. Slump test C. Minimum void method D. Talbot Richard test Options: 28860713729. 1
28860713730. 2
28860713731. 3
28860713732. 4
Question Number: 96 Question Id: 2886073440 Question Type: MCQ Option Shuffling: No Correct Marks: 1 Wrong Marks: 0 What could be the possible answer among the following for water cement ratio for high strength concrete? A. 0.5 B. 0.45 C. 0.4 D. 0.35
Options:
28860713733. 1
28860713734. 2
28860713735. 3
28860713736. 4
Question Number: 97 Question Id: 2886073441 Question Type: MCQ Option Shuffling: No Correct Marks: 1 Wrong Marks: 0 Use of High Strength Concrete in column A. It increases the size of the column B. It decreases the size of the column C. Doesn't affect D. Decrease the strength Options:
28860713737. 1
28860713738. 2
28860713739. 3
28860713740. 4

Question Number: 98 Question Id: 2886073442 Question Type: MCQ Option Shuffling: No Correct Marks: 1 Wrong Marks: 0

The breaking up of cohesion in a mass of concrete is called A. Workability B. Segregation C. Bleeding D. Creep **Options:** 28860713741. 1 28860713742. 2 28860713743.3 28860713744.4 Question Number: 99 Question Id: 2886073443 Question Type: MCQ Option Shuffling: No Correct Marks: 1 Wrong Marks: 0 Inverted L shape formwork is used in A. Mivan Technology B. Tunnel Form Technique C. Prefabrication System D. SISMO Technology **Options:** 28860713745.1 28860713746. 2 28860713747.3 28860713748.4 Question Number: 100 Question Id: 2886073444 Question Type: MCQ Option Shuffling: No Correct Marks: 1 Wrong Marks: 0 The Model Element "LOD 300" in BIM indicates A. Design development stage B. Detailed design stage C. Construction documentation stage D. Fabrication & Assembly stage **Options:** 28860713749, 1 28860713750.2 28860713751.3 28860713752.4