

National Testing Agency

Question Paper Name: AGRICULTURE ENGINEERING AND TECHNOLOGY 1st July 2019 Shift2 Set 2
Subject Name: AGRICULTURE ENGINEERING AND TECHNOLOGY
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Duration: 180
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Share Answer Key With Delivery Engine: Yes
Actual Answer Key: Yes

AGRICULTURE ENGINEERING AND TECHNOLOGY

Group Number : 1
Group Id : 55317224
Group Maximum Duration : 0
Group Minimum Duration : 180
Revisit allowed for view? : No
Revisit allowed for edit? : No
Break time: 0
Group Marks: 800

Part A : General Knowledge

Section Id : 55317233
Section Number : 1
Section type : Online
Mandatory or Optional: Mandatory
Number of Questions: 20
Number of Questions to be attempted: 20
Section Marks: 80
Display Number Panel: Yes
Group All Questions: No

Sub-Section Number: 1
Sub-Section Id: 55317255
Question Shuffling Allowed : Yes

Question Number : 1 Question Id : 5531723915 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 4 Wrong Marks : 1

There is a parliamentary system of Government in India because the

- (1) Lok Sabha is elected directly by the people.
- (2) Parliament can amend the Constitution.
- (3) Rajya Sabha cannot be dissolved.
- (4) Council of the ministers are responsible to the Lok Sabha.

Options :

- 55317215601. 1
- 55317215602. 2
- 55317215603. 3
- 55317215604. 4

Question Number : 2 Question Id : 5531723916 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Gilt – edged market refers to

- (1) Bullion market
- (2) Market of Govt. Securities
- (3) Market of guns
- (4) Market of pure metals

Options :

- 55317215605. 1
- 55317215606. 2
- 55317215607. 3
- 55317215608. 4

Question Number : 3 Question Id : 5531723917 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which one of the following is known as the 'Coffee Port' of the world?

- (1) Sao Paulo
- (2) Santos
- (3) Rio de Janeiro
- (4) Buenos Aires

Options :

- 55317215609. 1
- 55317215610. 2
- 55317215611. 3
- 55317215612. 4

Question Number : 4 Question Id : 5531723918 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

For increasing milk production, which state launched Rs.215 crore project 'Milk Mission' in July, 2018?

- (1) Meghalaya
- (2) Assam
- (3) Tripura
- (4) Nagaland

Options :

55317215613. 1
55317215614. 2
55317215615. 3
55317215616. 4

Question Number : 5 Question Id : 5531723919 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which of the following is the main characteristic of mixed farming?

- (1) Cultivation of both cash crops and food crops.
- (2) Cultivation of two or more crops in the same field.
- (3) Cultivation of crops and rearing of animals together.
- (4) Cultivation of fruits and vegetables.

Options :

55317215617. 1
55317215618. 2
55317215619. 3
55317215620. 4

Question Number : 6 Question Id : 5531723920 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

When you travel in certain parts of India, you will notice red soils. What is the main reason for this colour?

- (1) Abundance of magnesium
- (2) Accumulated humus
- (3) Presence of ferric oxides
- (4) Abundance of phosphates

Options :

55317215621. 1
55317215622. 2
55317215623. 3
55317215624. 4

Question Number : 7 Question Id : 5531723921 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which of the following sets of elements were primarily responsible for the origin of life on the earth?

- (1) Carbon, Hydrogen, Nitrogen
- (2) Hydrogen, Oxygen, Sodium
- (3) Oxygen, Calcium, Phosphorous
- (4) Carbon, Hydrogen, Potassium

Options :

- 55317215625. 1
- 55317215626. 2
- 55317215627. 3
- 55317215628. 4

Question Number : 8 Question Id : 5531723922 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which of the following statement is NOT true?

- (1) Khaira is a disease found in paddy.
- (2) False smut is a disease found in barley.
- (3) Rust disease is found in wheat.
- (4) Early blight is a disease found in potato.

Options :

- 55317215629. 1
- 55317215630. 2
- 55317215631. 3
- 55317215632. 4

Question Number : 9 Question Id : 5531723923 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Golden rice variety has been developed to combat the deficiency of

- (1) Iron
- (2) Vitamin C
- (3) Calcium
- (4) Vitamin A

Options :

- 55317215633. 1
- 55317215634. 2
- 55317215635. 3
- 55317215636. 4

Question Number : 10 Question Id : 5531723924 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

A person of mixed European and Indian blood in Latin America is called a

- (1) Mulato
- (2) Mestizo
- (3) Meiji
- (4) Mau Mau

Options :

- 55317215637. 1
- 55317215638. 2
- 55317215639. 3
- 55317215640. 4

Question Number : 11 Question Id : 5531723925 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

In the context of International Trade 'Early Harvest Package' refers to

- (1) A precursor to a free trade agreement between two trading partners.
- (2) A clause related to the agreement on agriculture under the WTO.
- (3) A subsidy mechanism given to the developing countries for trade in agriculture.
- (4) A transportation agreement signed between countries for the movement of goods.

Options :

- 55317215641. 1
- 55317215642. 2
- 55317215643. 3
- 55317215644. 4

Question Number : 12 Question Id : 5531723926 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The nitrogen present in atmosphere is

- (1) of no use to plants
- (2) injurious to plants
- (3) directly utilized by the plants
- (4) utilized through micro organism

Options :

- 55317215645. 1
- 55317215646. 2
- 55317215647. 3
- 55317215648. 4

Question Number : 13 Question Id : 5531723927 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Agricultural Scientist M.S. Swaminathan received an honorary medallion from India for his contribution towards the development of agricultural practices from which country?

- (1) Canada
- (2) Australia
- (3) New Zealand
- (4) Mexico

Options :

55317215649. 1

55317215650. 2

55317215651. 3

55317215652. 4

Question Number : 14 Question Id : 5531723928 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

ICAR, New Delhi has identified three BT cotton varieties for cultivation in Punjab, Haryana and Rajasthan; which were developed by Punjab Agricultural University (PAU), Ludhiana recently. Which one of the following is NOT among those three?

- (1) PAU BT - 1
- (2) BT -1861
- (3) F - 1861
- (4) RS – 2013

Options :

55317215653. 1

55317215654. 2

55317215655. 3

55317215656. 4

Question Number : 15 Question Id : 5531723929 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Most abundant Carbohydrate in the world is

- (1) Pectin
- (2) Rubisco
- (3) Hemicellulose
- (4) Cellulose

Options :

55317215657. 1

55317215658. 2

55317215659. 3

55317215660. 4

Question Number : 16 Question Id : 5531723930 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which one of the following is known as queen of spices?

- (1) Clove
- (2) Pepper
- (3) Nutmeg
- (4) Cardamom

Options :

55317215661. 1

55317215662. 2

55317215663. 3

55317215664. 4

Question Number : 17 Question Id : 5531723931 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

In which city has NABARD launched South East Asia's first centre for 'Climate Change'?

- (1) Jaipur
- (2) Patna
- (3) Lucknow
- (4) Chennai

Options :

55317215665. 1

55317215666. 2

55317215667. 3

55317215668. 4

Question Number : 18 Question Id : 5531723932 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

World Bank assisted project SMART was launched in

- (1) Rajasthan
- (2) Gujarat
- (3) Maharashtra
- (4) Punjab

Options :

55317215669. 1

55317215670. 2

55317215671. 3

55317215672. 4

Question Number : 19 Question Id : 5531723933 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

National Research Centre for grapes is located at

- (1) Nashik
- (2) Pune
- (3) Muzaffarpur
- (4) Lucknow

Options :

55317215673. 1

55317215674. 2

55317215675. 3

55317215676. 4

Question Number : 20 Question Id : 5531723934 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

**The National Milk Day which marks the birth anniversary of
father of White Revolution Dr. Verghese Kurien is celebrated
on**

- (1) November 23
- (2) November 24
- (3) November 25
- (4) November 26

Options :

55317215677. 1

55317215678. 2

55317215679. 3

55317215680. 4

Part B : AGRICULTURE ENGINEERING AND TECHNOLOGY

Section Id :	55317234
Section Number :	2
Section type :	Online
Mandatory or Optional:	Mandatory
Number of Questions:	180
Number of Questions to be attempted:	180
Section Marks:	720
Display Number Panel:	Yes
Group All Questions:	No

Sub-Section Number: 1
Sub-Section Id: 55317256

Question Number : 21 Question Id : 5531723935 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

For very hard soil with hidden obstructions, the suitable implement for plowing is

1. MB Plow
2. Bose plow
3. Rotary plow
4. Disc plow

Options :

55317215681. 1
55317215682. 2
55317215683. 3
55317215684. 4

Question Number : 22 Question Id : 5531723936 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Indira seed drill is suitable for

1. transplanted paddy
2. drilled paddy
3. sprouted paddy
4. broadcasted paddy

Options :

55317215685. 1
55317215686. 2
55317215687. 3
55317215688. 4

Question Number : 23 Question Id : 5531723937 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Centres of two gears in mesh are fixed on an arm. The larger gear with 100 teeth is fixed and the pinion has 25 teeth. How many revolutions will the pinion make if the arm is rotated once around the larger gear?

1. 6
2. 5
3. 4
4. 3

Options :

55317215689. 1

55317215690. 2
55317215691. 3
55317215692. 4

Question Number : 24 Question Id : 5531723938 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Lead and registration are the terms related to

1. seed drill
2. MB plow
3. cutter bar of mower
4. knapsack sprayer

Options :

55317215693. 1
55317215694. 2
55317215695. 3
55317215696. 4

Question Number : 25 Question Id : 5531723939 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Mat type seedlings are required in

1. automatic paddy transplanter
2. conventional paddy transplanting
3. drum seeder
4. broadcasting method

Options :

55317215697. 1
55317215698. 2
55317215699. 3
55317215700. 4

Question Number : 26 Question Id : 5531723940 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The power transmitted by a belt is maximum when the maximum tension in the belt (T)

is equal to _____, where T_c is the centrifugal tension.

1. T_c
2. $2T_c$
3. $3T_c$
4. $\frac{T_c}{3}$

Options :

- 55317215701. 1
- 55317215702. 2
- 55317215703. 3
- 55317215704. 4

Question Number : 27 Question Id : 5531723941 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

A pair of bullocks having the body weight 350 kg each pulling a seed drill at 3·0 kmph. The expected power developed by them is

- 1. 9·75 PS
- 2. 6·23 PS
- 3. 7·78 PS
- 4. 8·25 PS

Options :

- 55317215705. 1
- 55317215706. 2
- 55317215707. 3
- 55317215708. 4

Question Number : 28 Question Id : 5531723942 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Draft experienced by a Bose plow at a forward speed of 1 m/s and 3 m/s are 1500 N and 1800 N respectively. Find the same when it moves at 2·5 kmph

- 1. 1800 N
- 2. 2000 N
- 3. 1469 N
- 4. 1000 N

Options :

- 55317215709. 1
- 55317215710. 2
- 55317215711. 3
- 55317215712. 4

Question Number : 29 Question Id : 5531723943 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

In a planter,

1. both plants spacing and row spacing are maintained
2. plant spacing is maintained but row spacing is not maintained
3. row spacing can be maintained but plant spacing is not maintained
4. neither plant spacing nor row spacing are maintained

Options :

- 55317215713. 1
- 55317215714. 2
- 55317215715. 3
- 55317215716. 4

Question Number : 30 Question Id : 5531723944 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Bite length of a rotavator is dependent on

1. PTO speed
2. forward speed
3. depth of operation
4. width of operation

Options :

- 55317215717. 1
- 55317215718. 2
- 55317215719. 3
- 55317215720. 4

Question Number : 31 Question Id : 5531723945 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Rasp bar, wire loop, spike tooth and concave are related to

1. seed drill
2. MB plow
3. disc plow
4. thresher

Options :

- 55317215721. 1
- 55317215722. 2
- 55317215723. 3
- 55317215724. 4

Question Number : 32 Question Id : 5531723946 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

In hydraulic system of a tractor, the oil pressure developed by the pump is around

1. 50 kg/cm²
2. 100 kg/cm²
3. 150 kg/cm²
4. 200 kg/cm²

Options :

55317215725. 1

55317215726. 2

55317215727. 3

55317215728. 4

Question Number : 33 Question Id : 5531723947 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which type of bearings is better suited for fluctuating loads

1. Ball bearings
2. Roller bearings
3. Needle roller bearing
4. Thrust bearings

Options :

55317215729. 1

55317215730. 2

55317215731. 3

55317215732. 4

Question Number : 34 Question Id : 5531723948 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Sticky belt method is used in testing which of the following machines?

1. Paddy transplanter
2. Seed cum fertilizer drill
3. Lased land leveler
4. Axial flow thresher

Options :

55317215733. 1

55317215734. 2

55317215735. 3

55317215736. 4

Question Number : 35 Question Id : 5531723949 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

A vertical conveyer reaper (VCR) of 1.5 m wide is working at 4 kmph. If field efficiency is 70% the field capacity will be

1. 0.85 ha/h
2. 0.42 ha/h
3. 0.32 ha/h
4. 0.52 ha/h

Options :

55317215737. 1

55317215738. 2

55317215739. 3

55317215740. 4

Question Number : 36 Question Id : 5531723950 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The target of power generation from all renewable energy sources by 2022 in India is

1. 125 GW
2. 150 GW
3. 175 GW
4. 250 GW

Options :

55317215741. 1

55317215742. 2

55317215743. 3

55317215744. 4

Question Number : 37 Question Id : 5531723951 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Tractors and power tillers are equipped with diesel engine because

1. cost of diesel is less than the petrol
2. compression ratio of diesel engines are higher
3. weight of the diesel engines are more
4. diesel engine has more lugging ability

Options :

55317215745. 1
55317215746. 2
55317215747. 3
55317215748. 4

Question Number : 38 Question Id : 5531723952 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

When the speed of the engine fluctuates continuously below and above the mean speed, then the governor is said to be

1. stable
2. unstable
3. hunting
4. isochronous

Options :

55317215749. 1
55317215750. 2
55317215751. 3
55317215752. 4

Question Number : 39 Question Id : 5531723953 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

A six-cylinder engine is more balanced than four-cylinder engine since

1. only primary forces are balanced
2. only secondary forces are balanced
3. both primary and secondary forces are balanced
4. both primary and secondary forces are unbalanced

Options :

55317215753. 1
55317215754. 2
55317215755. 3
55317215756. 4

Question Number : 40 Question Id : 5531723954 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The specific fuel consumption of a small 4-S diesel engine running at 1000 r.p.m., consuming 0.28 lit of diesel in 10 min. producing 5.5 kg-m torque. The sfc of the engine will be

1. 0.5 kg/BHP-hr
2. 0.2 kg/ BHP-hr
3. 0.8 kg/ BHP-hr
4. 0.4 kg/ BHP-hr

Options :

55317215757. 1
55317215758. 2
55317215759. 3
55317215760. 4

Question Number : 41 Question Id : 5531723955 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The firing order of a six-cylinder engine is

1. 1 – 5 – 3 – 6 – 2 – 4
2. 1 – 5 – 2 – 6 – 3 – 4
3. 1 – 2 – 6 – 5 – 4 – 3
4. 1 – 2 – 4 – 6 – 3 – 5

Options :

55317215761. 1
55317215762. 2
55317215763. 3
55317215764. 4

Question Number : 42 Question Id : 5531723956 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

A steam engine falls in the category of

1. petrol/gasoline engine
2. spark ignition engine
3. compression ignition engine
4. external combustion engine

Options :

55317215765. 1
55317215766. 2
55317215767. 3
55317215768. 4

Question Number : 43 Question Id : 5531723957 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

In a flat belt drive mechanism, crowning of the pulley is done to

1. increase area of contact of pulley face
2. automatically adjust the belt on pulley face
3. increase belt tension
4. decrease belt slip

Options :

55317215769. 1

55317215770. 2

55317215771. 3

55317215772. 4

Question Number : 44 Question Id : 5531723958 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Both the valves of an IC engine with 1500 rpm remain close for
18° which is equivalent to

1. 0.02 sec
2. 0.002 sec
3. 0.2 sec
4. 2 sec

Options :

55317215773. 1

55317215774. 2

55317215775. 3

55317215776. 4

Question Number : 45 Question Id : 5531723959 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The Bernoulli's equation is law of conservation of

1. mass
2. momentum
3. energy
4. work

Options :

55317215777. 1

55317215778. 2

55317215779. 3

55317215780. 4

Question Number : 46 Question Id : 5531723960 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

For safe driving, the tractor steering unit should be checked after about

1. 50–60 hrs
2. 450–500 hrs
3. 700–750 hrs
4. 950–1000 hrs

Options :

55317215781. 1

55317215782. 2

55317215783. 3

55317215784. 4

Question Number : 47 Question Id : 5531723961 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

In Indian conditions, an agricultural female worker can produce

1. < 0.5 hp
2. > 0.5 hp
3. 1 hp
4. > 1 hp

Options :

55317215785. 1

55317215786. 2

55317215787. 3

55317215788. 4

Question Number : 48 Question Id : 5531723962 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

What is the RMS sound pressure level corresponding to sound level 90 dB, when P_o is $2 \times 10^{-5} \text{ N/m}^2$

1. 0.321 N/m^2
2. 0.634 N/m^2
3. 1.01 N/m^2
4. 0.823 N/m^2

Options :

55317215789. 1

55317215790. 2

55317215791. 3

55317215792. 4

Question Number : 49 Question Id : 5531723963 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

To obtain higher tractive force, the most suitable device is

1. 2-wheel drive tractor
2. 4-wheel drive tractor
3. crawler tractor
4. light weight tractor

Options :

55317215793. 1

55317215794. 2

55317215795. 3

55317215796. 4

Question Number : 50 Question Id : 5531723964 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

If the length of top link is reduced, the

1. depth of cut will be unchanged
2. width of cut will improve
3. weight transfer on the rear wheel will reduce
4. towed force on the rear wheel will increase

Options :

55317215797. 1

55317215798. 2

55317215799. 3

55317215800. 4

Question Number : 51 Question Id : 5531723965 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

In a towed wheel condition, the amount of net traction is

1. maximum
2. zero
3. infinite
4. unpredictable

Options :

55317215801. 1

55317215802. 2

55317215803. 3

55317215804. 4

Question Number : 52 Question Id : 5531723966 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Front wheel ballast is used in tractor to avoid

1. over turning of tractor
2. less fuel consumption of tractor
3. better traction at rear wheel
4. reduce wheel slippage

Options :

55317215805. 1

55317215806. 2

55317215807. 3

55317215808. 4

Question Number : 53 Question Id : 5531723967 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

While testing of internal combustion engine, as per BIS code how much overload is the engine is subjected to

1. 10% of full load
2. 10% of part load
3. 25% of full load
4. 25% of part load

Options :

55317215809. 1

55317215810. 2

55317215811. 3

55317215812. 4

Question Number : 54 Question Id : 5531723968 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The transmission oil of an agricultural tractor must be changed after every

1. 500 hours of work
2. 750 hours of work
3. 1000 hours of work
4. 2000 hours of work

Options :

55317215813. 1

55317215814. 2

55317215815. 3

55317215816. 4

Question Number : 55 Question Id : 5531723969 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Multiple universal joints are preferred over single joint because they

1. are more flexible
2. provide higher strength
3. are lighter in weight
4. minimize fluctuation of speed

Options :

55317215817. 1

55317215818. 2

55317215819. 3

55317215820. 4

Question Number : 56 Question Id : 5531723970 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

For the same power output, the size of fly wheel is largest and heaviest in

1. 4-S, 4-cylinder engine
2. 4-S, single cylinder engine
3. 4-S, 2-cylinder engine
4. 4-S, 3-cylinder engine

Options :

55317215821. 1

55317215822. 2

55317215823. 3

55317215824. 4

Question Number : 57 Question Id : 5531723971 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Forged steel is used to produce

1. piston
2. cylinder
3. connecting rod
4. mould board of MB plow

Options :

55317215825. 1

55317215826. 2

55317215827. 3

55317215828. 4

Question Number : 58 Question Id : 5531723972 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The octane number of commercially available fuel is

1. 56
2. 82
3. 92
4. 108

Options :

55317215829. 1

55317215830. 2

55317215831. 3

55317215832. 4

Question Number : 59 Question Id : 5531723973 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Prony brake dynamometer is used to measure

1. DBHP
2. fly wheel power
3. fuel power
4. bullock power

Options :

55317215833. 1

55317215834. 2

55317215835. 3

55317215836. 4

Question Number : 60 Question Id : 5531723974 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which of the following steering parameters help in self-straightening of the steering wheel?

1. Camber angle
2. Caster angle
3. Toe in
4. Scrub radius

Options :

55317215837. 1

55317215838. 2

55317215839. 3

55317215840. 4

Question Number : 61 Question Id : 5531723975 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

For design of flat belt drive, the design is based on smaller pulley because

1. bending of belt is more
2. RPM of pulley is more
3. diameter of pulley is less
4. centrifugal tension is higher

Options :

55317215841. 1

55317215842. 2

55317215843. 3

55317215844. 4

Question Number : 62 Question Id : 5531723976 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which vibration is very important from the engineering point of view

1. Natural vibration
2. Critically damped vibration
3. Under damped vibration
4. Over damped vibration

Options :

55317215845. 1

55317215846. 2

55317215847. 3

55317215848. 4

Question Number : 63 Question Id : 5531723977 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

In turning moment, when torque (T) is more than the mean torque (T_{mean}), the engine will

1. accelerate
2. decelerate
3. no change will take place
4. engine will cease to operate

Options :

55317215849. 1

55317215850. 2

55317215851. 3

55317215852. 4

Question Number : 64 Question Id : 5531723978 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

An aluminium plate of 100 sq cm is being dragged on a lubricant oil of 1.0 mm thick layer at a speed of 2.5 cm/s where viscosity is 18.0 poise. The required force to draw it will be

1. 450 dyne
2. 4500 dyne
3. 45000 dyne
4. 450000 dyne

Options :

55317215853. 1
55317215854. 2
55317215855. 3
55317215856. 4

Question Number : 65 Question Id : 5531723979 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The temperature below which the fuel ceases to flow is termed as

1. cloud point
2. pour point
3. octane number
4. SAE number

Options :

55317215857. 1
55317215858. 2
55317215859. 3
55317215860. 4

Question Number : 66 Question Id : 5531723980 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

In diesel engine, compression pressure ranges from

1. 10–15 kg/cm²
2. 15–20 kg/cm²
3. 25–30 kg/cm²
4. more than 30 kg/cm²

Options :

55317215861. 1
55317215862. 2
55317215863. 3
55317215864. 4

Question Number : 67 Question Id : 5531723981 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

In a diesel engine, what amount of the heat is lost to the environment through various methods

1. 0.2 kW/kW of engine output
2. 0.66 kW/kW of engine output
3. 1.0 kW/kW of engine output
4. 1.25 kW/kW of engine output

Options :

55317215865. 1

55317215866. 2

55317215867. 3

55317215868. 4

Question Number : 68 Question Id : 5531723982 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The sleeve lift height of watt governor is _____, where N = rpm of the balls about the spindle axis

1. $\frac{8.95}{N^2}$ m
2. $\frac{895}{N^2}$ m
3. $\frac{89.5}{N^2}$ m
4. $\frac{8950}{N^2}$ m

Options :

55317215869. 1

55317215870. 2

55317215871. 3

55317215872. 4

Question Number : 69 Question Id : 5531723983 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The degree of freedom (DOF) of a constrained structure is

1. (-) 1
2. (+) 1
3. 0
4. more than one (> 1)

Options :

55317215873. 1
55317215874. 2
55317215875. 3
55317215876. 4

Question Number : 70 Question Id : 5531723984 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

A damped vibration system is represented by $6\ddot{x} + 4\dot{x} + 3k = 0$, where mass, length of deflection and time are expressed in kg, m and s respectively. The damped frequency of the system will be

1. 2.24 rad/s
2. 0.50 rad/s
3. 0.62 rad/s
4. 0.33 rad/s

Options :

55317215877. 1
55317215878. 2
55317215879. 3
55317215880. 4

Question Number : 71 Question Id : 5531723985 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

A mechanism with single degree of freedom (DOF) cannot have

1. odd number of joints
2. odd number of links
3. both joints and links odd in number
4. independent on number of joints and links

Options :

55317215881. 1
55317215882. 2
55317215883. 3
55317215884. 4

Question Number : 72 Question Id : 5531723986 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The natural frequency of a rotary shaft is given by 50 Hz. The critical speed of the system will be

1. 3000 rps
2. 5000 rps
3. 2500 rps
4. 1000 rps

Options :

55317215885. 1

55317215886. 2

55317215887. 3

55317215888. 4

Question Number : 73 Question Id : 5531723987 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

A fuel having a chemical formula C_8H_{18} . The stoichiometrically balanced air-fuel ratio will be

1. 9 : 1
2. 12 : 1
3. 15 : 1
4. 17 : 1

Options :

55317215889. 1

55317215890. 2

55317215891. 3

55317215892. 4

Question Number : 74 Question Id : 5531723988 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The optimum C/N ratio required for bio-gas production should be

1. 15–20 : 1
2. 25–30 : 1
3. 40–45 : 1
4. 50–55 : 1

Options :

55317215893. 1

55317215894. 2

55317215895. 3

55317215896. 4

Question Number : 75 Question Id : 5531723989 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Type of gasifier most commonly used for engine application is

1. up draft gasifier
2. down draft gasifier
3. cross draft gasifier
4. cyclone gasifier

Options :

55317215897. 1

55317215898. 2

55317215899. 3

55317215900. 4

Question Number : 76 Question Id : 5531723990 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

For high speed wind mills, efficiency will be more when

1. lift force is more than drag force
2. drag force is more than lift force
3. lift force and drag force are equal
4. unpredictable

Options :

55317215901. 1

55317215902. 2

55317215903. 3

55317215904. 4

Question Number : 77 Question Id : 5531723991 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

At about 400°C, the complex structure of the organic mass starts to break down with release of gases, vapour and liquid which is termed as

1. oxidation
2. pyrolysis
3. reduction
4. combustion

Options :

55317215905. 1

55317215906. 2

55317215907. 3

55317215908. 4

Question Number : 78 Question Id : 5531723992 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Efficiency of a silicon module is about

1. 10–12%
2. 12–15%
3. 15–20%
4. 20–25%

Options :

55317215909. 1

55317215910. 2

55317215911. 3

55317215912. 4

Question Number : 79 Question Id : 5531723993 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Gasohol is a mixture of gasoline and ethanol where percentage of ethanol is

1. less than 5%
2. 6–10%
3. 11–15%
4. more than 15%

Options :

55317215913. 1

55317215914. 2

55317215915. 3

55317215916. 4

Question Number : 80 Question Id : 5531723994 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

For maintaining the inside temperature of a storage room at 22°C at an outdoor temperature of –2 °C, the COP (Coefficient of Performance) for an air to heat pump should be

1. 10·52
2. 14·75
3. 15·25
4. 16·35

Options :

55317215917. 1
55317215918. 2
55317215919. 3
55317215920. 4

Question Number : 81 Question Id : 5531723995 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Submersible pumps are

1. turbine pumps
2. closely coupled turbine pumps
3. reciprocating pumps
4. centrifugal pumps

Options :

55317215921. 1
55317215922. 2
55317215923. 3
55317215924. 4

Question Number : 82 Question Id : 5531723996 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Recovery test is associated to evaluation of

1. pump efficiency
2. well loss
3. aquifer parameter
4. formation loss

Options :

55317215925. 1
55317215926. 2
55317215927. 3
55317215928. 4

Question Number : 83 Question Id : 5531723997 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

A formation which neither contains nor transmits water is called as

1. aquifer
2. aquiclude
3. aquifuge
4. aquitard

Options :

55317215929. 1

55317215930. 2

55317215931. 3

55317215932. 4

Question Number : 84 Question Id : 5531723998 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Intrinsic permeability varies as the

1. square root of d_{50} grain size
2. square of mean grain diameter
3. square of d_{10} grain size
4. square root of d_{10} grain size

Options :

55317215933. 1

55317215934. 2

55317215935. 3

55317215936. 4

Question Number : 85 Question Id : 5531723999 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Ghyben-Herzberg relation is associated for determination of

1. ground water recharge
2. sea water intrusion
3. coastal wind erosion
4. well spacing

Options :

55317215937. 1

55317215938. 2

55317215939. 3

55317215940. 4

Question Number : 86 Question Id : 5531724000 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Ratio of the 30 or 50% size of gravel pack material to the 30 or 50% size of aquifer material is called as

1. uniformity coefficient
2. void ratio
3. formation ratio
4. pack-aquifer ratio

Options :

55317215941. 1

55317215942. 2

55317215943. 3

55317215944. 4

Question Number : 87 Question Id : 5531724001 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Line joining equal elevation of groundwater table is

1. isohyte
2. isotach
3. isobar
4. isobath

Options :

55317215945. 1

55317215946. 2

55317215947. 3

55317215948. 4

Question Number : 88 Question Id : 5531724002 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Cavity well is developed by

1. continuous pumping with full discharge
2. intermittent pumping with low discharge
3. intermittent pumping with full discharge
4. continuous pumping with low discharge

Options :

55317215949. 1

55317215950. 2

55317215951. 3

55317215952. 4

Question Number : 89 Question Id : 5531724003 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Hydraulic gradient has a dimension of

1. L
2. LT^{-1}
3. LT
4. is a dimensionless term

Options :

55317215953. 1

55317215954. 2

55317215955. 3

55317215956. 4

Question Number : 90 Question Id : 5531724004 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

70. Froud number at critical flow condition is

1. zero
2. equal to 1
3. equal to 10
4. more than 10

Options :

55317215957. 1

55317215958. 2

55317215959. 3

55317215960. 4

Question Number : 91 Question Id : 5531724005 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The ratio of specific energy after and before the hydraulic jump is called as

1. hydraulic head
2. hydraulic loss
3. efficiency of jump
4. relative energy loss

Options :

55317215961. 1
55317215962. 2
55317215963. 3
55317215964. 4

Question Number : 92 Question Id : 5531724006 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

For best hydraulic cross section of a trapezoidal channel having depth (d), the breadth (b) should be equal to

1. $d \cdot \tan \theta$
2. $b \cdot d \cdot \tan \theta$
3. $2d \cdot \tan \frac{\theta}{2}$
4. $b \cdot d \cdot \tan \frac{\theta}{2}$

Options :

55317215965. 1
55317215966. 2
55317215967. 3
55317215968. 4

Question Number : 93 Question Id : 5531724007 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The value of exponent ' m ' in $Q = C \cdot L \cdot H^m$ for suppressed weir is

1. less than 1
2. $\frac{3}{2}$
3. $\frac{5}{2}$
4. $\frac{1}{2}$

Options :

55317215969. 1
55317215970. 2
55317215971. 3
55317215972. 4

Question Number : 94 Question Id : 5531724008 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The dimension of Manning's roughness coefficient is

1. $L^{-\frac{1}{6}}$
2. $L^{-\frac{1}{3}}, T$
3. $L^{-\frac{1}{6}} \cdot T$
4. $L^{\frac{1}{3}} \cdot T$

Options :

55317215973. 1
55317215974. 2
55317215975. 3
55317215976. 4

Question Number : 95 Question Id : 5531724009 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

If Q is discharge in litres per second, L is length of crest in cm, and H is head over the crest, the discharge (Q) in case of a rectangular weir is given by

1. $Q = 3.33 LH^{\frac{3}{2}}$
2. $Q = 33.3 LH^{\frac{3}{2}}$
3. $Q = 0.0184 LH^{\frac{5}{2}}$
4. $Q = 0.0184 LH^{\frac{3}{2}}$

Options :

55317215977. 1
55317215978. 2
55317215979. 3
55317215980. 4

Question Number : 96 Question Id : 5531724010 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Force that helps the water molecules to attract each other and to hold them together is called as

1. adhesion
2. suction
3. cohesion
4. attraction

Options :

55317215981. 1
55317215982. 2
55317215983. 3

55317215984. 4

Question Number : 97 Question Id : 5531724011 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The soil structure in which horizontal arrangements of particles occur around a plane is called

1. prism like
2. platy
3. spheroidal
4. block like

Options :

55317215985. 1

55317215986. 2

55317215987. 3

55317215988. 4

Question Number : 98 Question Id : 5531724012 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Amount of water lost from soil when dried at 105°C for 24 hours refers to

1. hygroscopic water
2. gravitational water
3. moisture content
4. percolated water

Options :

55317215989. 1

55317215990. 2

55317215991. 3

55317215992. 4

Question Number : 99 Question Id : 5531724013 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Difference of moisture content between field capacity and permanent wilting point is referred as

1. hygroscopic water
2. available water
3. gravitational water
4. capillary water

Options :

55317215993. 1
55317215994. 2
55317215995. 3
55317215996. 4

Question Number : 100 Question Id : 5531724014 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Tensiometer operates only up to

1. 15 bar
2. 1·5 bar
3. 1 bar
4. 0·85 bar

Options :

55317215997. 1
55317215998. 2
55317215999. 3
55317216000. 4

Question Number : 101 Question Id : 5531724015 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The ratio of density of the substance to the density of water is called as

1. bulk density
2. particle density
3. specific gravity
4. specific weight

Options :

55317216001. 1
55317216002. 2
55317216003. 3
55317216004. 4

Question Number : 102 Question Id : 5531724016 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Consumptive use includes

1. evaporation and transpiration losses under vegetation
2. percolation plus leaching requirements
3. evapotranspiration plus deep percolation
4. evapotranspiration plus water lost under metabolic action

Options :

- 55317216005. 1
- 55317216006. 2
- 55317216007. 3
- 55317216008. 4

Question Number : 103 Question Id : 5531724017 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Amount of water used in metabolic action is

1. less than 1% of ET
2. from 2 to 5% of ET
3. about 10% of ET
4. about 20% of ET

Options :

- 55317216009. 1
- 55317216010. 2
- 55317216011. 3
- 55317216012. 4

Question Number : 104 Question Id : 5531724018 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Specific gravity of liquid is measured by

1. hygrometer
2. hydrometer
3. aerometer
4. anemometer

Options :

- 55317216013. 1
- 55317216014. 2
- 55317216015. 3
- 55317216016. 4

Question Number : 105 Question Id : 5531724019 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Arrangement of soil particles in a soil mass refers to

1. soil texture
2. soil structure
3. tortuosity
4. infiltrability

Options :

55317216017. 1

55317216018. 2

55317216019. 3

55317216020. 4

Question Number : 106 Question Id : 5531724020 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

A mass curve is the plot of

1. rainfall intensity and time
2. accumulated precipitation and time
3. rainfall depth and intensity
4. runoff and time

Options :

55317216021. 1

55317216022. 2

55317216023. 3

55317216024. 4

Question Number : 107 Question Id : 5531724021 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Synthetic unit hydrograph is derived for

1. gauged watershed
2. plain region watershed
3. ungauged watershed
4. hilly region watershed

Options :

55317216025. 1

55317216026. 2

55317216027. 3

55317216028. 4

Question Number : 108 Question Id : 5531724022 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

After satisfying the initial losses and infiltration losses, the rainfall excess reaches the stream in the form of

1. runoff
2. channel flow
3. overland flow
4. base flow

Options :

55317216029. 1

55317216030. 2

55317216031. 3

55317216032. 4

Question Number : 109 Question Id : 5531724023 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

AMC-I generally refers to

1. waterlogged condition of the soil
2. wet soil condition
3. moderately wet condition of soil
4. dry condition of the soil

Options :

55317216033. 1

55317216034. 2

55317216035. 3

55317216036. 4

Question Number : 110 Question Id : 5531724024 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

A small catchment of 200 ha received a rainfall of 6 cm in 90 minutes due to a storm. The runoff at the outlet lasted for 12 hours with an average discharge of $1 \text{ m}^3/\text{s}$. What is the ratio of runoff to precipitation?

1. 12%
2. 24%
3. 36%
4. 48%

Options :

55317216037. 1

55317216038. 2

55317216039. 3

55317216040. 4

Question Number : 111 Question Id : 5531724025 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The basic differential equation used under hydraulic routing is

1. Bernoulli's equation
2. St. Venant equation
3. Euler's equation
4. Philip's equation

Options :

55317216041. 1

55317216042. 2

55317216043. 3

55317216044. 4

Question Number : 112 Question Id : 5531724026 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

In straight drop structure, the height of longitudinal sills should be

1. 0.50 m
2. equal to height of end sill
3. less than the height of end sill
4. more than the height of end sill

Options :

55317216045. 1

55317216046. 2

55317216047. 3

55317216048. 4

Question Number : 113 Question Id : 5531724027 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Revised Universal Soil Loss Equation (RUSLE) estimates

1. average annual sediment yield
2. average annual soil loss
3. gross soil erosion
4. annual delivery ratio

Options :

55317216049. 1

55317216050. 2

55317216051. 3

55317216052. 4

Question Number : 114 Question Id : 5531724028 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The provision of emergency spillway in farm pond is for the purpose of

1. releasing and incoming of water
2. reducing infiltration loss
3. reducing seepage loss
4. safety of embankment

Options :

55317216053. 1

55317216054. 2

55317216055. 3

55317216056. 4

Question Number : 115 Question Id : 5531724029 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Wind erosion will be higher in case of

1. low organic matter in soil
2. high vegetation cover
3. untilled soil
4. aggregated soil structure

Options :

55317216057. 1

55317216058. 2

55317216059. 3

55317216060. 4

Question Number : 116 Question Id : 5531724030 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

If $\sum L_H$ = sum of all horizontal contacts, $\sum L_V$ = sum of all vertical contacts, H is the head between head water and tail water, the weighted creep ratio, C_w is expressed as

1. $C_w = \frac{\sum L_H + \sum L_V}{H}$

2. $C_w = \frac{\sum L_H + 2 \sum L_V}{2H}$

3. $C_w = \frac{\sum L_H + 3 \sum L_V}{3H}$

4. $C_w = \frac{\sum L_H + 4 \sum L_V}{4H}$

Options :

55317216061. 1

55317216062. 2

55317216063. 3

55317216064. 4

Question Number : 117 Question Id : 5531724031 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The prismoidal formula for computation of earth work in land leveling is given by

1. $V = \frac{L}{3}(A_1 + 4A_m + A_2)$

2. $V = \frac{L}{4}(A_1 + 4A_m + A_2)$

3. $V = \frac{L}{6}(A_1 + 4A_m + A_2)$

4. $V = L(A_1 + 4A_m + A_2)$

Options :

55317216065. 1

55317216066. 2

55317216067. 3

55317216068. 4

Question Number : 118 Question Id : 5531724032 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Rate of interflow of the catchment depends upon

1. rainfall depth

2. rainfall intensity

3. geological condition of the catchment

4. water table condition

Options :

55317216069. 1

55317216070. 2

55317216071. 3

55317216072. 4

Question Number : 119 Question Id : 5531724033 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Density of soil solids is known as

1. bulk density
2. particle density
3. specific gravity
4. specific weight

Options :

55317216073. 1

55317216074. 2

55317216075. 3

55317216076. 4

Question Number : 120 Question Id : 5531724034 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

At the same matrix suction, which soil will have higher water content

1. sandy soil
2. sandy-loam soil
3. loamy soil
4. clay soil

Options :

55317216077. 1

55317216078. 2

55317216079. 3

55317216080. 4

Question Number : 121 Question Id : 5531724035 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Land capability sub-class are formed on the basis of limitations regarding

1. soil type
2. soil depth
3. land use
4. land slope

Options :

- 55317216081. 1
- 55317216082. 2
- 55317216083. 3
- 55317216084. 4

Question Number : 122 Question Id : 5531724036 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

If the vertical interval of the bench terraces is 2.5m on a slope of 20% hill slope, calculate the length per hectare for a batter slope of 1:1.

- 1. 667 m
- 2. 833 m
- 3. 1000 m
- 4. 1335 m

Options :

- 55317216085. 1
- 55317216086. 2
- 55317216087. 3
- 55317216088. 4

Question Number : 123 Question Id : 5531724037 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

In a catchment, if the drainage density is higher, then

- 1. overland flow dominates
- 2. channel flow dominates
- 3. overland flow and channel flow both dominate
- 4. interflow dominates

Options :

- 55317216089. 1
- 55317216090. 2
- 55317216091. 3
- 55317216092. 4

Question Number : 124 Question Id : 5531724038 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

For a given soil conditions, better crop growth is obtained under

1. border irrigation
2. check basin irrigation
3. drip irrigation
4. sprinkler irrigation

Options :

55317216093. 1
55317216094. 2
55317216095. 3
55317216096. 4

**Question Number : 125 Question Id : 5531724039 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical**

Correct Marks : 4 Wrong Marks : 1

Check basin method of irrigation is most suitable in

1. heavy soil
2. sandy soil
3. coarse soil
4. loamy soil

Options :

55317216097. 1
55317216098. 2
55317216099. 3
55317216100. 4

**Question Number : 126 Question Id : 5531724040 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical**

Correct Marks : 4 Wrong Marks : 1

In clay soil with low infiltration rate, the size of basin is kept

1. very small
2. small
3. medium
4. large

Options :

55317216101. 1
55317216102. 2
55317216103. 3
55317216104. 4

Question Number : 127 Question Id : 5531724041 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Intermittent application of irrigation water to furrows or borders, creating a series of on and off modes of constant or variable time span, is called as

1. steady irrigation
2. intermittent irrigation
3. surge irrigation
4. sub-irrigation

Options :

55317216105. 1

55317216106. 2

55317216107. 3

55317216108. 4

Question Number : 128 Question Id : 5531724042 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Pop-up sprinklers are suitable to irrigate

1. close growing crops
2. pastures
3. lawns
4. horticultural crops

Options :

55317216109. 1

55317216110. 2

55317216111. 3

55317216112. 4

Question Number : 129 Question Id : 5531724043 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The period for which water is supplied to a crop is called as

1. delta
2. duty
3. base
4. irrigation intensity

Options :

55317216113. 1

55317216114. 2

55317216115. 3

55317216116. 4

Question Number : 130 Question Id : 5531724044 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Ratio of crop yield to the total amount of water use in the field is called as

1. crop water use efficiency
2. water application efficiency
3. conveyance efficiency
4. field water use efficiency

Options :

55317216117. 1

55317216118. 2

55317216119. 3

55317216120. 4

Question Number : 131 Question Id : 5531724045 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

A lower uniformity coefficient of irrigation indicates

1. wastage of water
2. more evaporation
3. loss of water through deep percolation
4. uneven water distribution along the water run

Options :

55317216121. 1

55317216122. 2

55317216123. 3

55317216124. 4

Question Number : 132 Question Id : 5531724046 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The field capacity, wilting point and specific dry unit weight of soil are 25%, 15% and 1.5 respectively. For a crop with root zone depth of 80 cm, the storage capacity of the soil will be

1. 8 cm
2. 10 cm
3. 12 cm
4. 14 cm

Options :

- 55317216125. 1
- 55317216126. 2
- 55317216127. 3
- 55317216128. 4

Question Number : 133 Question Id : 5531724047 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

If net irrigation for a crop is 5 cm and field efficiency is 60%, then gross irrigation depth to be applied will be

- 1. 6 cm
- 2. 8.33 cm
- 3. 10.33 cm
- 4. 12.33 cm

Options :

- 55317216129. 1
- 55317216130. 2
- 55317216131. 3
- 55317216132. 4

Question Number : 134 Question Id : 5531724048 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The frictional loss in the sprinkler lateral calculated by using Scobey's formula is given as

(H_f = total friction loss in line in m,

K_s = coefficient of retardation,

L = length of pipe in m,

Q = total discharge in lps, and

D = inside diameter of the pipe in mm)

- 1. $H_f = \frac{K_s L Q^{1.9}}{D^{4.9}} (4.10 \times 10^6)$
- 2. $H_f = \frac{K_s L Q^{4.9}}{D^{1.9}} (4.10 \times 10^6)$
- 3. $H_f = \frac{K_s L D^{1.9}}{Q^{4.9}} (4.10 \times 10^6)$
- 4. $H_f = \frac{K_s D Q^{1.9}}{L^{4.9}} (4.10 \times 10^6)$

Options :

- 55317216133. 1
- 55317216134. 2
- 55317216135. 3
- 55317216136. 4

Question Number : 135 Question Id : 5531724049 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Hooghout's equation is valid for

1. anisotropic soil with impermeable layer below the soil surface
2. isotropic soil without impermeable layer below the soil surface
3. homogeneous soil with impermeable layer below the soil surface
4. heterogeneous soil

Options :

55317216137. 1

55317216138. 2

55317216139. 3

55317216140. 4

Question Number : 136 Question Id : 5531724050 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The frictional resistance offered to the flow in drain is directly proportional to the

1. hydraulic radius
2. wetted perimeter
3. depth of flow
4. drain slope

Options :

55317216141. 1

55317216142. 2

55317216143. 3

55317216144. 4

Question Number : 137 Question Id : 5531724051 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

A watershed of 1000 ha area is discharging through a drain at an average rate of $3 \text{ m}^3/\text{s}$. Calculate the drainage coefficient

1. 1.08 cm
2. 2.59 cm
3. 7.2 cm
4. 25.9 cm

Options :

55317216145. 1

55317216146. 2

55317216147. 3

55317216148. 4

Question Number : 138 Question Id : 5531724052 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

In a soil, if pH is usually between 8.5 to 10, EC of the saturation extract at 25°C is less than 4 dS/m and exchangeable sodium percentage is more than 15, the soil is known as

1. acid soil
2. saline soil
3. saline-alkali soil
4. alkali soil

Options :

55317216149. 1

55317216150. 2

55317216151. 3

55317216152. 4

Question Number : 139 Question Id : 5531724053 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

10 gram of sodium chloride has been dissolved in 5 litres of water.
What is the salt concentration in ppm?

1. 50
2. 200
3. 2000
4. 20000

Options :

55317216153. 1

55317216154. 2

55317216155. 3

55317216156. 4

Question Number : 140 Question Id : 5531724054 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

A minimum grade for tile drains is provided as

1. 0-20%
2. 0-50%
3. 1%
4. >1%

Options :

- 55317216157. 1
- 55317216158. 2
- 55317216159. 3
- 55317216160. 4

Question Number : 141 Question Id : 5531724055 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

A spheroid generated by the revolution of an ellipse about its longer axis and elongated along the polar diameter is known as

1. prolate
2. oblate
3. cuboid
4. sphere

Options :

- 55317216161. 1
- 55317216162. 2
- 55317216163. 3
- 55317216164. 4

Question Number : 142 Question Id : 5531724056 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The volume of a fruit partially floating in a fluid

1. cannot be measured
2. can be measured by dipping manually
3. can be measured by using a sinker
4. can be measured by using another sample of same fruit

Options :

- 55317216165. 1
- 55317216166. 2
- 55317216167. 3
- 55317216168. 4

Question Number : 143 Question Id : 5531724057 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

A grain mass having angle of repose 45° , was subjected to free fall to form a pile. If the base of the pile was 8 cm, what was the pile height?

1. 4 cm
2. 6 cm
3. 8 cm
4. 10 cm

Options :

55317216169. 1

55317216170. 2

55317216171. 3

55317216172. 4

Question Number : 144 Question Id : 5531724058 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The thermal conductivity of coriander leaves as compared to cauliflower is

1. more
2. less
3. equal
4. not related

Options :

55317216173. 1

55317216174. 2

55317216175. 3

55317216176. 4

Question Number : 145 Question Id : 5531724059 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Dilatant flow behaviour occurs when with increase in shear rate the shear stress

1. decreases
2. increases
3. does not change
4. becomes zero

Options :

55317216177. 1

55317216178. 2

55317216179. 3

55317216180. 4

Question Number : 146 Question Id : 5531724060 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The thermal conductivity, specific heat and thermal diffusivity of a grain sample was found to be $0.14 \text{ W/m} \cdot ^\circ\text{K}$, $1.54 \text{ kJ/kg} \cdot ^\circ\text{K}$ and $0.79 \times 10^{-7} \text{ m}^2/\text{s}$ respectively. Determine the density of the sample.

1. 115 kg/m^3
2. 1150 kg/m^3
3. 11500 kg/m^3
4. 115000 kg/m^3

Options :

55317216181. 1

55317216182. 2

55317216183. 3

55317216184. 4

Question Number : 147 Question Id : 5531724061 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The straight line passing through origin on a shear stress vs shear rate graph indicates that it is

1. Newtonian fluid
2. Non-Newtonian fluid
3. Pseudo plastic
4. Plastic

Options :

55317216185. 1

55317216186. 2

55317216187. 3

55317216188. 4

Question Number : 148 Question Id : 5531724062 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Estimation of protein content is based on which of the following

1. Carbon content
2. Oxygen content
3. Nitrogen content
4. Phosphorous content

Options :

55317216189. 1

55317216190. 2

55317216191. 3

55317216192. 4

Question Number : 149 Question Id : 5531724063 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Judges in the sensory evaluation should be

1. hungry
2. healthy
3. smoking
4. sick

Options :

55317216193. 1

55317216194. 2

55317216195. 3

55317216196. 4

Question Number : 150 Question Id : 5531724064 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

A lemon has a major axis and minor axis as 6 cm and 4 cm respectively. What is its volume?

1. 16π
2. 48π
3. 64π
4. 128π

Options :

55317216197. 1

55317216198. 2

55317216199. 3

55317216200. 4

Question Number : 151 Question Id : 5531724065 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

A perfect vacuum forms a perfect

1. conductor
2. dielectric material
3. ideal black body
4. radiator

Options :

55317216201. 1
55317216202. 2
55317216203. 3
55317216204. 4

Question Number : 152 Question Id : 5531724066 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Thermal resistance of 2 mm thick stainless-steel sheet of 1 m² area with a thermal conductivity of 15 W/m.°k is

1. 13.33×10^{-5} K/W
2. 9.10×10^{-2} K/W
3. 15 K/W
4. 15000 K/W

Options :

55317216205. 1
55317216206. 2
55317216207. 3
55317216208. 4

Question Number : 153 Question Id : 5531724067 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The ratio of total emissive power of the body to the total emissive power of a black body at the same temperature is called

1. emissivity
2. absorptivity
3. transmissivity
4. reflectivity

Options :

55317216209. 1
55317216210. 2
55317216211. 3

55317216212. 4

Question Number : 154 Question Id : 5531724068 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Sherwood number in mass transfer reflectivity and Nusselt number in heat transfer are

1. equal
2. analogous
3. reciprocal
4. log of

Options :

55317216213. 1

55317216214. 2

55317216215. 3

55317216216. 4

Question Number : 155 Question Id : 5531724069 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Static method of EMC determination does not use

1. salt
2. incubator
3. desiccator
4. dryer

Options :

55317216217. 1

55317216218. 2

55317216219. 3

55317216220. 4

Question Number : 156 Question Id : 5531724070 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The expression $A_1 V_1 = A_2 V_2$ is the continuity equation, when the fluid is

1. compressible
2. incompressible
3. laminar
4. turbulent

Options :

- 55317216221. 1
- 55317216222. 2
- 55317216223. 3
- 55317216224. 4

Question Number : 157 Question Id : 5531724071 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

If H is the absolute humidity, the humid heat (s) value of moist air (kJ/kg. °C) is given by

- 1. $s = 1.006 + 1.805 H$
- 2. $s = 0.24 + 0.45 H$
- 3. $s = 1.805 + 1.006 H$
- 4. $s = 0.45 + 0.24 H$

Options :

- 55317216225. 1
- 55317216226. 2
- 55317216227. 3
- 55317216228. 4

Question Number : 158 Question Id : 5531724072 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Vibratory conveyors usually impart which type of simultaneous movement to grains.

- 1. vertical upward and backward
- 2. vertical upward and forward
- 3. vertical downward and forward
- 4. vertical downward and backward

Options :

- 55317216229. 1
- 55317216230. 2
- 55317216231. 3
- 55317216232. 4

Question Number : 159 Question Id : 5531724073 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

If the amount of vapour removed in an evaporator is equal to the product flow rate then the concentration of product becomes

1. half
2. double
3. equal
4. four times

Options :

55317216233. 1

55317216234. 2

55317216235. 3

55317216236. 4

Question Number : 160 Question Id : 5531724074 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Spiral separators are best suited for separation of mustard seeds from

1. pea seeds
2. ragi seeds
3. black pepper seeds
4. lentil seeds

Options :

55317216237. 1

55317216238. 2

55317216239. 3

55317216240. 4

Question Number : 161 Question Id : 5531724075 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

During drying of a commodity, the ambient air at 25°C was heated to 75°C for drying. If the exit drying temperature was measured to be 45°C, then heat utilization factor is

1. 0.3
2. 0.4
3. 0.5
4. 0.6

Options :

55317216241. 1

55317216242. 2

55317216243. 3

55317216244. 4

Question Number : 162 Question Id : 5531724076 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

What is the degree of grinding, if the overall surface area of the product before and after grinding are 28 m^2 and 280 m^2 respectively

1. 10
2. 28
3. 2·8
4. 252

Options :

55317216245. 1

55317216246. 2

55317216247. 3

55317216248. 4

Question Number : 163 Question Id : 5531724077 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

In foam mat drying which of the following is not used as a foaming agent?

1. Glycerol mono stearate
2. Methyl cellulose
3. Egg albumen
4. Citric acid

Options :

55317216249. 1

55317216250. 2

55317216251. 3

55317216252. 4

Question Number : 164 Question Id : 5531724078 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which of the following is not extracted by steam distillation?

1. Essential oil from betel leaves
2. Essential oil from turmeric
3. Essential oil from lemon grass
4. Oil from groundnut kernels

Options :

55317216253. 1

55317216254. 2

55317216255. 3

55317216256. 4

Question Number : 165 Question Id : 5531724079 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

A rice milling operation produced 63 kg of head rice, 7 kg of broken rice, 23 kg of husk and 7 kg of bran. The degree of polish in % is

1. $\left(\frac{7}{100}\right) \times 100$
2. $\left(\frac{7}{70}\right) \times 100$
3. $\left(\frac{7}{77}\right) \times 100$
4. $\left(\frac{7}{63}\right) \times 100$

Options :

55317216257. 1

55317216258. 2

55317216259. 3

55317216260. 4

Question Number : 166 Question Id : 5531724080 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

If a wire mesh has 81 number of perforations in a square inch, the wire mesh is denoted as

1. 8·1
2. 9
3. 10
4. 81

Options :

55317216261. 1

55317216262. 2

55317216263. 3

55317216264. 4

Question Number : 167 Question Id : 5531724081 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which grain is subjected to break rolls initially followed by gradual reduction rolls?

1. Paddy
2. Rice
3. Maize
4. Wheat

Options :

55317216265. 1
55317216266. 2
55317216267. 3
55317216268. 4

Question Number : 168 Question Id : 5531724082 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Soaking paddy at 65–75°C for 3 to 4 hours followed by 30 minutes steaming belongs to which parboiling method?

1. single stage
2. double stage
3. CFTRI method
4. Jadavpur method

Options :

55317216269. 1
55317216270. 2
55317216271. 3
55317216272. 4

Question Number : 169 Question Id : 5531724083 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which of the following is an extruded product?

1. Pasta
2. Biscuit
3. Cake
4. Bread

Options :

55317216273. 1
55317216274. 2
55317216275. 3
55317216276. 4

Question Number : 170 Question Id : 5531724084 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which of the following is not an antifoam agent used for preventing foaming in a fermentor?

1. Vegetable oil
2. Mineral oil
3. Poly glycol
4. Sodium benzoate

Options :

55317216277. 1

55317216278. 2

55317216279. 3

55317216280. 4

Question Number : 171 Question Id : 5531724085 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Separation of broken grains from whole rice, on the basis of length can be made using

1. indented cylinder
2. scalper
3. debearder
4. spiral separator

Options :

55317216281. 1

55317216282. 2

55317216283. 3

55317216284. 4

Question Number : 172 Question Id : 5531724086 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Separation of dissolved solids by application of pressure is the process of

1. filtration
2. vacuum filtration
3. membrane separation
4. leaching

Options :

55317216285. 1

55317216286. 2

55317216287. 3

55317216288. 4

Question Number : 173 Question Id : 5531724087 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Principle of high-pressure processing does not include

1. dipole rotation
2. Le Chatelier's principle
3. isostatic principle
4. adiabatic heating

Options :

55317216289. 1

55317216290. 2

55317216291. 3

55317216292. 4

Question Number : 174 Question Id : 5531724088 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

If the amount of grain before hulling and the amount of unhulled grain after hulling are X_1 and X_2 respectively, then the coefficient of hulling is

1. $(X_1 - X_2)/X_1$
2. $(X_2 - X_1)/X_1$
3. $(X_1 - X_2)/X_2$
4. $(X_2 - X_1)/X_2$

Options :

55317216293. 1

55317216294. 2

55317216295. 3

55317216296. 4

Question Number : 175 Question Id : 5531724089 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Drum dryer is used for drying

1. solids only
2. liquids only
3. powders only
4. solids and liquids both

Options :

55317216297. 1

55317216298. 2

55317216299. 3

55317216300. 4

Question Number : 176 Question Id : 5531724090 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Absorption of 1 J of energy in form of ionizing radiation per kg of matter is called one

1. Gray
2. Curie
3. Stoke
4. Siemen

Options :

55317216301. 1

55317216302. 2

55317216303. 3

55317216304. 4

Question Number : 177 Question Id : 5531724091 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which of the following material can act as secondary packaging material to accommodate a number of primary packages?

1. PP film
2. Glass bottles
3. Corrugated cases
4. Metal cans

Options :

55317216305. 1

55317216306. 2

55317216307. 3

55317216308. 4

Question Number : 178 Question Id : 5531724092 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The crown cork cap used in carbonated beverage drinks glass bottle helps to

1. protect the content
2. maintain vacuum inside the bottle
3. retain internal pressure
4. secure contents inside the bottle

Options :

55317216309. 1
55317216310. 2
55317216311. 3
55317216312. 4

Question Number : 179 Question Id : 5531724093 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

In bucket elevator, the material discharge chute is situated at

1. bottom of elevator
2. top of elevator
3. middle of the elevator
4. anywhere along the elevator

Options :

55317216313. 1
55317216314. 2
55317216315. 3
55317216316. 4

Question Number : 180 Question Id : 5531724094 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which of the following cannot be treated by ohmic heating?

1. Milk
2. Tomato puree
3. Mango juice
4. Wheat flour

Options :

55317216317. 1
55317216318. 2
55317216319. 3
55317216320. 4

Question Number : 181 Question Id : 5531724095 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which of the following is used commercially as active ingredient for oxygen absorption?

1. Iron powder
2. Magnesium powder
3. Clay powder
4. Potassium manganate

Options :

55317216321. 1

55317216322. 2

55317216323. 3

55317216324. 4

Question Number : 182 Question Id : 5531724096 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

In Hubill's model to predict the pressure drop, the air flow rates are given in terms of

1. $\text{m}^3 \text{s}^{-1} \text{m}^{-2}$
2. $\text{m}^3 \text{s}^{-1}$
3. $\text{kg s}^{-1} \text{m}^{-2}$
4. $\text{kg m}^2 \text{s}^{-1}$

Options :

55317216325. 1

55317216326. 2

55317216327. 3

55317216328. 4

Question Number : 183 Question Id : 5531724097 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

If ϕ_i is the angle of internal friction, then the reciprocal of pressure ratio K is

1. $\frac{1-\sin\phi_i}{1+\sin\phi_i}$
2. $\frac{1+\sin\phi_i}{1-\sin\phi_i}$
3. $\frac{(1-\sin\phi_i)^2}{(1+\sin\phi_i)^2}$
4. $\frac{(1+\sin\phi_i)^2}{(1-\sin\phi_i)^2}$

Options :

55317216329. 1

55317216330. 2

55317216331. 3

55317216332. 4

Question Number : 184 Question Id : 5531724098 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The nature of lateral pressure profile in a shallow bin is

1. exponential
2. linear
3. quadratic
4. moving average type

Options :

55317216333. 1

55317216334. 2

55317216335. 3

55317216336. 4

Question Number : 185 Question Id : 5531724099 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

In general, as a thumb rule, what decrease in temperature of storage environment nearly doubles shelf life of seeds

1. 10-5°C
2. 15-5°C
3. 20-5°C
4. 5-5°C

Options :

55317216337. 1

55317216338. 2

55317216339. 3

55317216340. 4

Question Number : 186 Question Id : 5531724100 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

In cooling load calculation, product load is what type of heat that is carried to the cold store

1. field heat
2. transmission heat
3. infiltrated heat
4. respiration heat

Options :

55317216341. 1

55317216342. 2

55317216343. 3

55317216344. 4

Question Number : 187 Question Id : 5531724101 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

'Cocoon's developed at IRRI, Philippines employs the principle of

1. hermetic storage
2. low temp storage
3. cover and plinth
4. high temp storage

Options :

55317216345. 1

55317216346. 2

55317216347. 3

55317216348. 4

Question Number : 188 Question Id : 5531724102 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The type of irradiation process for sterilization of food products is called

1. radurizaotion
2. radicidation
3. radappertisation
4. pasteurization

Options :

55317216349. 1

55317216350. 2

55317216351. 3

55317216352. 4

Question Number : 189 Question Id : 5531724103 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Determine the amount of field heat per hour to be removed from cool store maintained at 12°C due to 1 tonne of vegetable (specific heat 3 kJ/kg.°C). The field temperature at the time of harvest is 32°C. The vegetables are required to attain the temperature of cool room (12°C) in 5 days.

1. 100 kJ/h
2. 500 kJ/h
3. 1000 kJ/h
4. 2000 kJ/h

Options :

55317216353. 1
55317216354. 2
55317216355. 3
55317216356. 4

Question Number : 190 Question Id : 5531724104 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

In a single effect evaporation 912 kg of water is evaporated per hour. The steam consumption is 36 kg/min. Economy of operation is

1. 0.95
2. 1.95
3. 1.25
4. 0.75

Options :

55317216357. 1
55317216358. 2
55317216359. 3
55317216360. 4

Question Number : 191 Question Id : 5531724105 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Diagrammatic representation of places of occurrence in a food processing plant is known as

1. process flow chart
2. layout diagram
3. process map
4. basic flow chart

Options :

55317216361. 1
55317216362. 2

55317216363. 3

55317216364. 4

Question Number : 192 Question Id : 5531724106 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Factors not affecting the degree of cleaning in a food processing unit is

1. temperature of detergent
2. concentration of detergent
3. amount of detergent
4. cost of equipment

Options :

55317216365. 1

55317216366. 2

55317216367. 3

55317216368. 4

Question Number : 193 Question Id : 5531724107 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Piezo electric transducers are

1. active transducers
2. passive transducers
3. primary transducers
4. secondary transducers

Options :

55317216369. 1

55317216370. 2

55317216371. 3

55317216372. 4

Question Number : 194 Question Id : 5531724108 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Multiple measuring attributes can be handled by

1. pyrometer
2. thermistor
3. data logger
4. hot wire anemometer

Options :

55317216373. 1
55317216374. 2
55317216375. 3
55317216376. 4

Question Number : 195 Question Id : 5531724109 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Siemens is the unit of

1. electrical conductivity
2. temperature
3. electrical strength
4. electrical resistance

Options :

55317216377. 1
55317216378. 2
55317216379. 3
55317216380. 4

Question Number : 196 Question Id : 5531724110 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

In linear programming, the area bounded by all the given constraints is the

1. feasible region
2. non feasible region
3. optimum solution
4. basic solution

Options :

55317216381. 1
55317216382. 2
55317216383. 3
55317216384. 4

Question Number : 197 Question Id : 5531724111 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Number of customers waiting in the queue is termed as

1. queue
2. queue line
3. queue length
4. customer line

Options :

55317216385. 1

55317216386. 2

55317216387. 3

55317216388. 4

Question Number : 198 Question Id : 5531724112 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The column which is introduced in the matrix to balance the rim requirement is known as

1. idle column
2. key column
3. slack column
4. dummy column

Options :

55317216389. 1

55317216390. 2

55317216391. 3

55317216392. 4

Question Number : 199 Question Id : 5531724113 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Organization for ensuring standard of food articles sold to the customers in India is

1. FSSAI
2. ISO
3. CODEX
4. FDA

Options :

55317216393. 1

55317216394. 2

55317216395. 3

55317216396. 4

Correct Marks : 4 Wrong Marks : 1

HACCP is a safety management tool which stands for

1. Health Analysis of Critical Control Points
2. Hazard Analysis of Critical Control Point
3. Hazard Analysis of Crucial Control Path
4. Health Analysis of Crucial Control Path

Options :

55317216397. 1

55317216398. 2

55317216399. 3

55317216400. 4