National Testing Agency

Question Paper Name :	PGQP58 24th Sep 2021 Shift 1
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PGQP58

Group Number :	1
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Group Maximum Duration :	0
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Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	400
Is this Group for Examiner? :	No

PART A - General

Section Id :	8643511222
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory

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Number of Questions :	25
Number of Questions to be attempted :	25
Section Marks :	100
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Sub-Section Number :	1
Sub-Section Id :	8643511455
Question Shuffling Allowed :	Yes

Question Number : 1 Question Id : 86435129630 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Select the correct word from the options:

After you _____ , your lifestyle usually changes.

1. play
2. sleep
3. go shopping
4. get married

Options :

864351102971. 1

864351102972. 2

864351102973. 3

864351102974. 4

Question Number : 2 Question Id : 86435129631 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

Select the most suitable synonym:

SWANKY

1. posh
2. poor
3. plain
4. modest

Options :

864351102975. 1

864351102976. 2

864351102977. 3

864351102978. 4

Question Number : 3 Question Id : 86435129632 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which is the nearest meaning of the phrase **to rain cats and dogs**?

1. heavy rain
2. to rain non-stop
3. fight among cats and dogs
4. drizzling

Options :

864351102979. 1

864351102980. 2

864351102981. 3

864351102982. 4

Question Number : 4 Question Id : 86435129633 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

Fill in the blank with the right word :

_____ he is well known, he is very honest.

1. Despite the fact that
2. In spite of the fact that
3. notwithstanding
4. even if

Options :

864351102983. 1

864351102984. 2

864351102985. 3

864351102986. 4

Question Number : 5 Question Id : 86435129634 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Select the most suitable antonym:

VAGABOND

1. unsettled
2. fly-by-night
3. aimless
4. permanent

Options :

864351102987. 1

864351102988. 2

864351102989. 3

864351102990. 4

Question Number : 6 Question Id : 86435129635 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

Choose the correct spelling:

1. opportonity
2. opportunity
3. ooportunity
4. aportonity

Options :

864351102991. 1

864351102992. 2

864351102993. 3

864351102994. 4

Question Number : 7 Question Id : 86435129636 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Identify the meaning of the following idiom from the options given:
spill the beans

1. To be untidy
2. To be very talkative
3. To reveal something that is supposed to be kept a secret
4. To leave a place quickly

Options :

864351102995. 1

864351102996. 2

864351102997. 3

864351102998. 4

Question Number : 8 Question Id : 86435129637 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

Which is the nearest meaning of the phrase ***out of blue***

1. stranger
2. unexpectedly
3. to bring happiness
4. emerging out of blue colour

Options :

864351102999. 1

864351103000. 2

864351103001. 3

864351103002. 4

Question Number : 9 Question Id : 86435129638 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Fill in the blank with the right option :

A treasurer must _____ the money he spends.

1. allow for
2. give account for
3. account for
4. ask for

Options :

864351103003. 1

864351103004. 2

864351103005. 3

864351103006. 4

Question Number : 10 Question Id : 86435129639 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

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The phrase, **A hard nut to crack** means

1. an interesting problem
2. a difficult problem
3. a unique problem
4. a simple problem

Options :

864351103007. 1

864351103008. 2

864351103009. 3

864351103010. 4

Question Number : 11 Question Id : 86435129640 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Choose the number which is different from others in the group.

1. 8
2. 64
3. 125
4. 28

Options :

864351103011. 1

864351103012. 2

864351103013. 3

864351103014. 4

Question Number : 12 Question Id : 86435129641 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

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In a row of trees, one tree is fifth from either end of the row. How many trees are there in the row?

1. 8
2. 9
3. 10
4. 11

Options :

864351103015. 1

864351103016. 2

864351103017. 3

864351103018. 4

Question Number : 13 Question Id : 86435129642 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

If – means ×, × means +, + means ÷, and ÷ means –, then

$40 \times 12 + 3 - 6 \div 60 = ?$

1. 7.95
2. 16
3. 44
4. None of these

Options :

864351103019. 1

864351103020. 2

864351103021. 3

864351103022. 4

Question Number : 14 Question Id : 86435129643 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

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Choose the correct answer:

39798 + 3798 + 378 = ?

1. 43576
2. 43974
3. 43984
4. 49532

Options :

864351103023. 1

864351103024. 2

864351103025. 3

864351103026. 4

Question Number : 15 Question Id : 86435129644 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Find the lowest common multiple of 24, 36 and 40.

1. 120
2. 240
3. 360
4. 480

Options :

864351103027. 1

864351103028. 2

864351103029. 3

864351103030. 4

Question Number : 16 Question Id : 86435129645 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

Find the number which when multiplied by 15 increased by 196.

1. 14
2. 20
3. 26
4. 28

Options :

864351103031. 1

864351103032. 2

864351103033. 3

864351103034. 4

Question Number : 17 Question Id : 86435129646 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Choose the correct alternative based on relationship:

Planet : Orbit : : Projectile : ?

1. Trajectory
2. Track
3. Milky Way
4. Path

Options :

864351103035. 1

864351103036. 2

864351103037. 3

864351103038. 4

Question Number : 18 Question Id : 86435129647 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

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Choose the word which is least like the other words in the group:

1. Pistol
2. Sword
3. Gun
4. Rifle

Options :

864351103039. 1

864351103040. 2

864351103041. 3

864351103042. 4

Question Number : 19 Question Id : 86435129648 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Choose the number which is different from others in the group.

1. 21
2. 36
3. 49
4. 56

Options :

864351103043. 1

864351103044. 2

864351103045. 3

864351103046. 4

Question Number : 20 Question Id : 86435129649 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

Find out the missing number in the following sequence :

1, 3, 3, 6, 7, 9, ?, 12, 21.

1. 10
2. 11
3. 12
4. 13

Options :

864351103047. 1

864351103048. 2

864351103049. 3

864351103050. 4

Question Number : 21 Question Id : 86435129650 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

If in a certain code TWENTY is written as 863985 and ELEVEN is written as 323039, how is TWELVE written in that code ?

1. 863203
2. 863584
3. 863903
4. 863063

Options :

864351103051. 1

864351103052. 2

864351103053. 3

864351103054. 4

Question Number : 22 Question Id : 86435129651 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

DGCA stands for

1. Director General of Civil Association
2. Direct General of Civil Aviation
3. Director General of Cost Accounts
4. Director General of Coal Authority

Options :

864351103055. 1

864351103056. 2

864351103057. 3

864351103058. 4

Question Number : 23 Question Id : 86435129652 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The 46th President of the USA is

1. Donald Trump
2. Joe Biden
3. Kamala Harris
4. Mike Pence

Options :

864351103059. 1

864351103060. 2

864351103061. 3

864351103062. 4

Question Number : 24 Question Id : 86435129653 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

According to the NEP 2020, the school system will change to

1. 5+2+2+4
2. 5+3+3+4
3. 5+2+3+4
4. 5+4+3+4

Options :

864351103063. 1

864351103064. 2

864351103065. 3

864351103066. 4

Question Number : 25 Question Id : 86435129654 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Russian vaccine for COVID-19 is

1. Sputnik V
2. Sputnik VI
3. Sputnik
4. Sputnik IV

Options :

864351103067. 1

864351103068. 2

864351103069. 3

864351103070. 4

PART B - POWER AND ENERGY ENGG.

Section Id : 8643511223

Section Number : 2

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Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	75
Number of Questions to be attempted :	75
Section Marks :	300
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Sub-Section Number :	1
Sub-Section Id :	8643511456
Question Shuffling Allowed :	Yes

Question Number : 26 Question Id : 86435129655 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Core losses in a transformer is the sum of

1. eddy current loss and primary winding loss
2. eddy current loss and hysteresis loss
3. eddy current loss and secondary winding loss
4. eddy current loss and copper loss

Options :

864351103071. 1

864351103072. 2

864351103073. 3

864351103074. 4

Question Number : 27 Question Id : 86435129656 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

In nuclear power plant, fission rate is controlled by

1. introducing neutron absorbing material
2. introducing electron absorbing material
3. introducing proton absorbing material
4. introducing neutron and proton absorbing materials

Options :

864351103075. 1

864351103076. 2

864351103077. 3

864351103078. 4

Question Number : 28 Question Id : 86435129657 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

A fully controlled natural commutated 3-phase bridge rectifier is operating with a firing angle $\alpha = 30^0$. The peak to peak voltage ripple expressed as a ratio of the peak output dc voltage at the output of the converter bridge is

1. 0.85
2. 0.75
3. 0.55
4. 0.66

Options :

864351103079. 1

864351103080. 2

864351103081. 3

864351103082. 4

Question Number : 29 Question Id : 86435129658 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

The relay will _____in the power system.

1. isolate the fault
2. anticipate the fault
3. detect the fault
4. All of these

Options :

864351103083. 1

864351103084. 2

864351103085. 3

864351103086. 4

Question Number : 30 Question Id : 86435129659 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The value of solar constant is

1. 1.36 kW/m^2
2. 1.16 kW/m^2
3. 1.26 kW/m^2
4. 1.46 kW/m^2

Options :

864351103087. 1

864351103088. 2

864351103089. 3

864351103090. 4

Question Number : 31 Question Id : 86435129660 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

Battery is a/an

1. power dense device
2. energy dense device
3. power and energy dense device
4. energy generation device

Options :

864351103091. 1

864351103092. 2

864351103093. 3

864351103094. 4

Question Number : 32 Question Id : 86435129661 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

During the charging of lead acid battery the

1. reduction takes place at negative electrode
2. oxidation takes place at negative electrode
3. reduction takes place at positive electrode
4. None of the above

Options :

864351103095. 1

864351103096. 2

864351103097. 3

864351103098. 4

Question Number : 33 Question Id : 86435129662 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

An *RL* circuit has $R = 3.5\ \Omega$ and $L = 150$ mH. The time constant of the circuit is

1. 4.286 s
2. 42.86 μs
3. 42.86 ms
4. 4.28 ms

Options :

864351103099. 1

864351103100. 2

864351103101. 3

864351103102. 4

Question Number : 34 Question Id : 86435129663 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

_____ is symmetrical fault in power system.

1. LG fault
2. LLG fault
3. LL fault
4. LLL fault

Options :

864351103103. 1

864351103104. 2

864351103105. 3

864351103106. 4

Question Number : 35 Question Id : 86435129664 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

A series circuit consists of a 250 Ω resistor, an 8 μF capacitor and 200 mH inductor. If the supply of 240 V, 50 Hz is connected across the circuit, what is the current in the circuit?

1. 0.6431 A
2. 0.5741 A
3. 0.7741 A
4. 0.9741 A

Options :

864351103107. 1

864351103108. 2

864351103109. 3

864351103110. 4

Question Number : 36 Question Id : 86435129665 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

If the inertia constant *H* is 9 MJ/MVA for a 45 MVA generator, the energy stored is

1. 405 MJ
2. 9 MJ
3. 202.5 MJ
4. 45 MJ

Options :

864351103111. 1

864351103112. 2

864351103113. 3

864351103114. 4

Question Number : 37 Question Id : 86435129666 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

In a flat plate solar water heaters, the transparent glass is used to

1. block short and long wave radiation onto absorber
2. allow short and long wave radiation onto absorber
3. allow the short wave onto absorber and block emitted long wave radiation
4. block short wave and allow long wave radiation onto absorber

Options :

864351103115. 1

864351103116. 2

864351103117. 3

864351103118. 4

Question Number : 38 Question Id : 86435129667 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

If the transmission line is operated close to its maximum power transfer capability, it affects the

1. efficiency of the line
2. voltage profile
3. power flow
4. stability

Options :

864351103119. 1

864351103120. 2

864351103121. 3

864351103122. 4

Question Number : 39 Question Id : 86435129668 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

In comparison with thermal power plants, the hydro power plants' capital cost is_____ and operating cost is_____.

1. low, low
2. high, high
3. high, low
4. low, high

Options :

864351103123. 1

864351103124. 2

864351103125. 3

864351103126. 4

Question Number : 40 Question Id : 86435129669 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Thermal power normally reaches maximum efficiency when operated as

1. peak load plants
2. intermediate load plants
3. base load plants
4. peak and intermediate load plants

Options :

864351103127. 1

864351103128. 2

864351103129. 3

864351103130. 4

Question Number : 41 Question Id : 86435129670 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

An alternator is supplying a load. An incremental change in load of 5 MW requires the generation to be increased by 7.5 MW. If the incremental cost at the plant is 280 MWh, what is the incremental cost at load side?

1. R425/MWh
2. R420/MWh
3. R435/MWh
4. R415/MWh

Options :

864351103131. 1

864351103132. 2

864351103133. 3

864351103134. 4

Question Number : 42 Question Id : 86435129671 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Unit commitment in a power system is to

1. determine the units that should run for a particular load
2. determine the units that should be kept in synchronism
3. determine the units that should run for all the loads
4. determine the units that should run optimally

Options :

864351103135. 1

864351103136. 2

864351103137. 3

864351103138. 4

Question Number : 43 Question Id : 86435129672 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

For the slack bus, _____specified.

1. active power and voltage magnitude are
2. active and reactive powers are
3. active power and load angle are
4. voltage magnitude and phase angle are

Options :

864351103139. 1

864351103140. 2

864351103141. 3

864351103142. 4

Question Number : 44 Question Id : 86435129673 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

For an open circuit test of a transformer, the _____winding is connected to supply.

1. HV
2. either HV or LV
3. LV
4. None of the above

Options :

864351103143. 1

864351103144. 2

864351103145. 3

864351103146. 4

Question Number : 45 Question Id : 86435129674 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

A 1000/250V, 50 Hz single-phase transformer has 80 secondary turns and has effective cross-sectional core are of 100 cm^2. Calculate the value of maximum flux density.

1. 1.41 mT
2. 1.41 T
3. 1.31 T
4. 1.51 T

Options :

864351103147. 1

864351103148. 2

864351103149. 3

864351103150. 4

Question Number : 46 Question Id : 86435129675 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

A 50 HZ synchronous generator is spinning at a speed of 750 r.p.m.. How many poles are in the machine?

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

Options :

864351103151. 1

864351103152. 2

864351103153. 3

864351103154. 4

Question Number : 47 Question Id : 86435129676 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

A 3-phase star connected synchronous generator is rated at 1500 kVA,11000 V. When a load of 1000 kW, 0.85 leading is connected, calculate the load current.

1. 62.61 A
2. 72.62 A
3. 45.65 A
4. 92.62 A

Options :

864351103155. 1

864351103156. 2

864351103157. 3

864351103158. 4

Question Number : 48 Question Id : 86435129677 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

For dc shunt motor, the above nominal speed can be achieved by

1. armature resistance control
2. armature voltage control
3. field flux control
4. armature resistance and voltage control

Options :

864351103159. 1

864351103160. 2

864351103161. 3

864351103162. 4

Question Number : 49 Question Id : 86435129678 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

The interrupting time of a circuit breaker is the period between the instant of

1. initiation of short circuit and the arc extinction on an opening operation
2. energizing of the trip circuit and the arc extinction on an opening operation
3. initiation of short circuit and the parting of primary arc contacts
4. energizing of the trip circuit and the parting of primary arc contacts

Options :

864351103163. 1

864351103164. 2

864351103165. 3

864351103166. 4

Question Number : 50 Question Id : 86435129679 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

When a program is being executed in an 8085 microprocessor, its program counter contains

1. the memory address of the instruction that is to be executed next
2. the number of instructions in the current program that have already been executed
3. the total number of instructions in the program being executed
4. the memory address of the instruction that is being currently executed

Options :

864351103167. 1

864351103168. 2

864351103169. 3

864351103170. 4

Question Number : 51 Question Id : 86435129680 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

ZOLLEGE.in

Correct Marks : 4 Wrong Marks : 1

At full load, _____ type of single-phase induction motor has the highest power factor.

1. capacitor-run
2. split-phase
3. shaded pole
4. capacitor-start

Options :

864351103171. 1

864351103172. 2

864351103173. 3

864351103174. 4

Question Number : 52 Question Id : 86435129681 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The rated voltage of a 3-phase power system is given as

1. peak line to line voltage
2. RMS line to line voltage
3. RMS phase voltage
4. peak phase voltage

Options :

864351103175. 1

864351103176. 2

864351103177. 3

864351103178. 4

Question Number : 53 Question Id : 86435129682 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

The transmission line distance protection relay having the property of being inherently directional is

1. OHM relay
2. reactance relay
3. MHO relay
4. impedance relay

Options :

864351103179. 1

864351103180. 2

864351103181. 3

864351103182. 4

Question Number : 54 Question Id : 86435129683 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

A bipolar junction transistor (BJT) is used as a power control switch by biasing it in the cut-off region (OFF state) or in the saturation region (ON state). In the ON state, for the BJT

1. the base-emitter junction is forward biased, and the base-collector junction is reverse biased
2. the base-emitter junction is reverse biased, and the base-collector junction is forward biased
3. both the base-emitter junction and the base-collector junctions are reverse biased
4. both the base-emitter and base-collector junctions are forward biased

Options :

864351103183. 1

864351103184. 2

864351103185. 3

864351103186. 4

Question Number : 55 Question Id : 86435129684 Question Type : MCQ Option Shuffling : No

ZOLLEGE.in

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

High Voltage DC (HVDC) transmission is mainly used for

1. inter-connecting two systems with for short distance
2. eliminating reactive power requirement in the operation
3. to reduce harmonics in system
4. large power transmission over very long distances

Options :

864351103187. 1

864351103188. 2

864351103189. 3

864351103190. 4

Question Number : 56 Question Id : 86435129685 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The conduction loss versus device current characteristic of a power MOSFET is best approximated by

1. a straight line
2. exponential increasing function
3. a parabola
4. exponential decreasing function

Options :

864351103191. 1

864351103192. 2

864351103193. 3

864351103194. 4

Question Number : 57 Question Id : 86435129686 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

ZOLLEGE.in

Correct Marks : 4 Wrong Marks : 1

Voltage waveform of a three-phase square-wave inverter contains

1. triple harmonics only
2. odd harmonics only
3. both odd and even harmonics
4. even harmonics only

Options :

864351103195. 1

864351103196. 2

864351103197. 3

864351103198. 4

Question Number : 58 Question Id : 86435129687 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Electric power transmission lines are classified on the basis of

1. length of the line
2. rated voltage
3. rated power
4. rated frequency

Options :

864351103199. 1

864351103200. 2

864351103201. 3

864351103202. 4

Question Number : 59 Question Id : 86435129688 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

SCR can be

1. turned OFF but not ON with a gate pulse
2. turned OFF and ON with a gate pulse
3. turned ON with supply voltage pulse and OFF with a gate pulse
4. turned ON but not OFF with a gate pulse

Options :

864351103203. 1

864351103204. 2

864351103205. 3

864351103206. 4

Question Number : 60 Question Id : 86435129689 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The typical ratio of latching current to holding current in a 20 A thyristor is

1. 0.5
2. 5.0
3. 2.0
4. 1.0

Options :

864351103207. 1

864351103208. 2

864351103209. 3

864351103210. 4

Question Number : 61 Question Id : 86435129690 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

The similar molecules are attracted by _____and dissimilar molecules are attracted by _____ in a matter.

1. gravitational force, adhesive force
2. cohesive force, adhesive force
3. compression, gravitational force
4. gravitational force, cohesive force

Options :

864351103211. 1

864351103212. 2

864351103213. 3

864351103214. 4

Question Number : 62 Question Id : 86435129691 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

In a series *RLC* resonance circuit at very low frequencies, _____and _____.

1. capacitive reactance is low, inductive reactance is high
2. resistance is high, capacitive reactance is low
3. resistance is low, inductive reactance is high
4. capacitive reactance is high, inductive reactance is low

Options :

864351103215. 1

864351103216. 2

864351103217. 3

864351103218. 4

Question Number : 63 Question Id : 86435129692 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

In diesel engine, the fuel is ignited by

1. heat generated due to compression
2. spark
3. heat supplied by the battery
4. fuel injection

Options :

864351103219. 1

864351103220. 2

864351103221. 3

864351103222. 4

Question Number : 64 Question Id : 86435129693 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

A 10-bit ADC produces output code as 0X12A. What is the ADC input voltage?

1. 0.058 V
2. 1.36 µV
3. 1.46 mV
4. 1.46 V

Options :

864351103223. 1

864351103224. 2

864351103225. 3

864351103226. 4

Question Number : 65 Question Id : 86435129694 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

The conductivity of semiconductor _____ with increase in temperature.

1. decreases
2. is not affected
3. increases
4. None of the above

Options :

864351103227. 1

864351103228. 2

864351103229. 3

864351103230. 4

Question Number : 66 Question Id : 86435129695 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Find the Laplace transform of $(2\delta(t)-2e^{t})$.

1. $2s-4/s-1$
2. $2s-2/2-s$
3. $2s+2/s+1$
4. $2s-2/4s-1$

Options :

864351103231. 1

864351103232. 2

864351103233. 3

864351103234. 4

Question Number : 67 Question Id : 86435129696 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

BJT is a

1. voltage controlled device
2. current controlled device
3. unipolar device
4. slow switching device

Options :

864351103235. 1

864351103236. 2

864351103237. 3

864351103238. 4

Question Number : 68 Question Id : 86435129697 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of following family of IC's has highest speed?

1. TTL
2. DTL
3. ECL
4. CMOS

Options :

864351103239. 1

864351103240. 2

864351103241. 3

864351103242. 4

Question Number : 69 Question Id : 86435129698 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

_____ is constant in a transformer.

1. Power factor
2. Current
3. Voltage
4. Frequency

Options :

864351103243. 1

864351103244. 2

864351103245. 3

864351103246. 4

Question Number : 70 Question Id : 86435129699 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Slew rate of an Op-amp indicates

1. how fast its output voltage changes for a step input
2. how fast its output power changes
3. how fast its output current changes
4. how fast its output impedance changes

Options :

864351103247. 1

864351103248. 2

864351103249. 3

864351103250. 4

Question Number : 71 Question Id : 86435129700 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

If a pole of control system is on imaginary axis in the *s*-plane, the system will be

1. marginally stable
2. overdamped
3. unstable
4. stable

Options :

864351103251. 1

864351103252. 2

864351103253. 3

864351103254. 4

Question Number : 72 Question Id : 86435129701 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

_____ DC motor has high starting torque with low speed.

1. Shunt
2. Series
3. Shunt compound
4. Long shunt

Options :

864351103255. 1

864351103256. 2

864351103257. 3

864351103258. 4

Question Number : 73 Question Id : 86435129702 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

_____ power device can be used for high switching applications.

1. SCR
2. IGBT
3. MOSFET
4. GTO

Options :

864351103259. 1

864351103260. 2

864351103261. 3

864351103262. 4

Question Number : 74 Question Id : 86435129703 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

A standalone engine driven synchronous generator is feeding a partly inductive load. A capacitor is now connected across the load to completely nullify the inductive current. For this operating condition

1. the field current has to be increased and fuel input left unaltered
2. the field current and fuel input have to be increased
3. the field current and fuel input have to be reduced
4. the field current has to be reduced and fuel input left unaltered

Options :

864351103263. 1

864351103264. 2

864351103265. 3

864351103266. 4

Question Number : 75 Question Id : 86435129704 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

In a biased differential relay, the bias is defined as a ratio of

1. operating coil current and restraining coil current
2. number of turns of restraining and operating coil
3. fault current and operating coil current
4. fault current and restraining coil current

Options :

864351103267. 1

864351103268. 2

864351103269. 3

864351103270. 4

Question Number : 76 Question Id : 86435129705 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The property of SF_6 which makes it suitable for circuit breaker, is

1. Electronegative
2. Non-inflammability
3. Thermal stability
4. Chemical stability

Options :

864351103271. 1

864351103272. 2

864351103273. 3

864351103274. 4

Question Number : 77 Question Id : 86435129706 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

Wave energy is basically harnessed in the form of

1. chemical energy
2. internal energy
3. mechanical energy
4. electrical energy

Options :

864351103275. 1

864351103276. 2

864351103277. 3

864351103278. 4

Question Number : 78 Question Id : 86435129707 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The skin effect increases the effect value of

1. inductance of the conductor
2. capacitance of the conductor
3. reactance of the conductor
4. resistance of the conductor

Options :

864351103279. 1

864351103280. 2

864351103281. 3

864351103282. 4

Question Number : 79 Question Id : 86435129708 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

For high switching applications, the power switch should have

1. least recovery time
2. high breakdown voltage
3. low breakdown voltage
4. high recovery time

Options :

864351103283. 1

864351103284. 2

864351103285. 3

864351103286. 4

Question Number : 80 Question Id : 86435129709 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The retardation test on DC shunt machine is carried out to find the

1. copper loss
2. windage loss
3. stray losses
4. eddy current loss

Options :

864351103287. 1

864351103288. 2

864351103289. 3

864351103290. 4

Question Number : 81 Question Id : 86435129710 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

In 3-stage Cockroft-Walton voltage multiplier circuit, the voltage across the capacitor C1 is

1. 3 Vmax
2. 4 Vmax
3. 2 Vmax
4. Vmax

Options :

864351103291. 1

864351103292. 2

864351103293. 3

864351103294. 4

Question Number : 82 Question Id : 86435129711 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

For a transposed transmission line

1. positive, negative and zero sequence impedances are equal
2. positive and negative sequence impedances are equal
3. zero and positive sequence impedances are equal
4. negative and zero sequence impedances are equal

Options :

864351103295. 1

864351103296. 2

864351103297. 3

864351103298. 4

Question Number : 83 Question Id : 86435129712 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

A thermocouple works on the principle of

1. seeback effect
2. Joule-Thomson effect
3. Peltier effect
4. Thomson effect

Options :

864351103299. 1

864351103300. 2

864351103301. 3

864351103302. 4

Question Number : 84 Question Id : 86435129713 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

IGBT has _____ blocking capability.

1. unipolar voltage
2. bipolar voltage
3. very high switching frequency
4. higher voltage

Options :

864351103303. 1

864351103304. 2

864351103305. 3

864351103306. 4

Question Number : 85 Question Id : 86435129714 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

Laplace transform of impulse function is

1. zero
2. one
3. infinity
4. exponential

Options :

864351103307. 1

864351103308. 2

864351103309. 3

864351103310. 4

Question Number : 86 Question Id : 86435129715 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

A synchronous machine

1. runs below synchronous speed
2. is a single excited machine
3. is doubly excited machine
4. runs above synchronous speed

Options :

864351103311. 1

864351103312. 2

864351103313. 3

864351103314. 4

Question Number : 87 Question Id : 86435129716 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

The per unit value is defined as

1. product of actual value in any unit and base value in same units
2. ratio of base value in any unit to actual value in same units
3. ratio of actual value in any unit to base value in same units
4. ratio of base value to actual value

Options :

864351103315. 1

864351103316. 2

864351103317. 3

864351103318. 4

Question Number : 88 Question Id : 86435129717 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

If mechanical input to alternator is lost, then

1. it runs at very high speed
2. it stops working
3. it consumes reactive power
4. it runs as synchronous motor

Options :

864351103319. 1

864351103320. 2

864351103321. 3

864351103322. 4

Question Number : 89 Question Id : 86435129718 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

A standard full impulse voltage is specified by BSS and ISS is

1. 1/50μ s
2. 1.5/40μ s
3. 1.2/50μ s
4. 1.65/40μ s

Options :

864351103323. 1

864351103324. 2

864351103325. 3

864351103326. 4

Question Number : 90 Question Id : 86435129719 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

If total charge in a capacitor is doubled, the energy stored _____.

1. is doubled
2. is quadrupled
3. is reduced to half
4. remains unchanged

Options :

864351103327. 1

864351103328. 2

864351103329. 3

864351103330. 4

Question Number : 91 Question Id : 86435129720 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

In a delta-delta system, if phase voltage is 440 V, line voltage is

1. 762 V
2. 311 V
3. 440 V
4. 254 V

Options :

864351103331. 1

864351103332. 2

864351103333. 3

864351103334. 4

Question Number : 92 Question Id : 86435129721 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The transfer function of the linear system is the

1. ratio of derivative of the output and the input
2. ratio of the output and input
3. ratio of integral of the output and the input
4. ratio of Laplace transform of the output and input with all initial conditions zero

Options :

864351103335. 1

864351103336. 2

864351103337. 3

864351103338. 4

Question Number : 93 Question Id : 86435129722 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

The normal range of δ for power system stable operation is

1. $0–30^0$
2. $0–90^0$
3. $0–45^0$
4. $01–100^0$

Options :

864351103339. 1

864351103340. 2

864351103341. 3

864351103342. 4

Question Number : 94 Question Id : 86435129723 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The dc motor, which can provide zero speed regulation at full load without any controller, is

1. series
2. shunt
3. differential compound
4. cumulative compound

Options :

864351103343. 1

864351103344. 2

864351103345. 3

864351103346. 4

Question Number : 95 Question Id : 86435129724 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

In a switched reluctance motor, the stator poles are _____ rotor teeth.

1. equal to
2. less than
3. higher than
4. Do not matter

Options :

864351103347. 1

864351103348. 2

864351103349. 3

864351103350. 4

Question Number : 96 Question Id : 86435129725 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

An isolator operates under

1. fault condition
2. no-load condition
3. Full-load condition
4. 50% load condition

Options :

864351103351. 1

864351103352. 2

864351103353. 3

864351103354. 4

Question Number : 97 Question Id : 86435129726 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

An MHD generator converts _____ energy of the fuel directly into electrical energy.

1. chemical
2. solar
3. heat
4. biomass

Options :

864351103355. 1

864351103356. 2

864351103357. 3

864351103358. 4

Question Number : 98 Question Id : 86435129727 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Fuel cell converts _____ into _____ energy.

1. hydrogen, electrical
2. mechanical energy, electrical
3. solar energy, electrical
4. thermal energy, electrical

Options :

864351103359. 1

864351103360. 2

864351103361. 3

864351103362. 4

Question Number : 99 Question Id : 86435129728 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

ZOLLEGE.in

Pyrheliometer is used to measure

1. diffused solar radiation
2. direct solar radiation
3. global solar radiation
4. intensity of solar radiation

Options :

864351103363. 1

864351103364. 2

864351103365. 3

864351103366. 4

Question Number : 100 Question Id : 86435129729 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The thermal energy is stored as sensible heat by

1. changing the phase of the material
2. changing the temperature of the material
3. converting into electricity
4. converting into chemical energy

Options :

864351103367. 1

864351103368. 2

864351103369. 3

864351103370. 4

ZOLLEGE.in