RRB ALP Electronics Mechanic 23 Jan 2019 Official Paper (Shift 3) (Previous Year Paper)

RRB Assistant Loco Pilot (ALP) • 2019 • 175 questions • 150 minutes • Answer key

Take this paper as a timed mock test

Practise under exam conditions, then review your answers after you submit.

yourmocktest.com/pyq/rrb-alp/rrb-alp-electronics-mechanic-23-jan-2019-official-paper-shift-3-p…

Scan the QR code or click the link to open it.

YourMockTest.com — Free Study Material

PART A

Q1. Name the scientist who discovered bacteria ?

(a) Robert Koch
(b) James Chadwick
(c) Eugen Goldstein
(d) A V Leeuwenhoek

Q2. If a body has a specific gravity of less than 1, then it will float in/on _____.

(a) air
(b) water
(c) liquids
(d) mercury

Q3. Which of the following options does not have an SI base unit?

(a) Amount of substance
(b) Frequency
(c) Luminous intensity
(d) Electric current

Q4. How many medals did India win in Rio Olympics, 2016?

(a) 3
(b) 4
(c) 2
(d) 5

Q5. It is mainly due to the gravitational effect of the _____ on the rotating earth that the level of water in the sea rises and falls.

(a) Venus
(b) Mercury
(c) Moon
(d) Sun

Q6. Two resistance of 2Ω and 6Ω are connected in series and this combination is connected across a 12 V battery. Find the current in the 6Ω resistor.

(a) 3.5 A
(b) 1. 5 A
(c) 0.5 A
(d) 2.5 A

Q7. Substances that are broken down by biological processes are said to be _____.

(a) reusable
(b) non-biodegradabl
(c) non-reusable
(d) biodegradable

Q8. A software program that has been developed to harm other computers is called a/an _____.

(a) server
(b) LAN
(c) malware
(d) operating system

Q9. Kuchipudi has its roots in which Indian State?

(a) Arunachal Pradesh
(b) Kerala
(c) Andhra Pradesh
(d) Himachal Pradesh

Q10. Which Indian cricketer received the Padma Bhushan in 2018?

(a) MS Dhoni
(b) Virat Kohli
(c) Sachin Tendulkar
(d) Saurav Ganguly

Q11. JPEG stands for _____.

(a) Joint Program Experts Group
(b) Joint Program Executing Group
(c) Joint Photographic Experts Group
(d) Joint Program Experimental Group.

Q12. Two resistors, one of 12 Ω and the other of 24 Ω are connected in parallel. This combination is connected in series with a 22 Ω resistor and a 12 V battery. The current in the 12 Ω resistor is _____.

(a) (8/15) A
(b) (2/15) A
(c) (6/15) A
(d) (4/15) A

Q13. RK Narayan is famous for his book _____.

(a) The Room on the Roof
(b) Two Livers
(c) Malgudi Days
(d) A suitable Boy

Q14. _____ protection must be worn whenever noise levels exceed the noise exposure standard.

(a) Hearing
(b) Head
(c) Eye
(d) Foot

Q15. A wire of length 1 and radius r has a resistance R. The resistance of another wire made of the same material but having half its length and half its radius will be.

(a) 4R
(b) R/2
(c) 2R
(d) R

YourMockTest.com — Free Study Material

Q16. Safety boots or shoes must be worn in designated areas to protect your _____ from falling objects.

(a) eye
(b) ear
(c) head
(d) feet

Q17. A cylindrical wire of length L and radius r has a resistance of R. The resistance of another wire of the same material but thrice its length and one-third its radius will be _____.

(a) 27R
(b) 9R
(c) R
(d) 3R

Q18. If a body is NOT homogeneous, then its density is a function of its _____.

(a) pressure
(b) acceleration
(c) position
(d) velocity

Q19. Two resistors of 10Ω and 20 Ω area connected in series and this combination is connected across a 30 V supply voltage. Find the voltage across the 10 Ω resistor.

(a) 20 V
(b) 10 V
(c) 5 V
(d) 15 V

Q20. Which one of these is a harvest festival?

(a) Teej
(b) Janmashtami
(c) Deepawali
(d) Onam

Q21. 86°F is equal to _____

(a) 20°C
(b) 30°C
(c) 34°C
(d) 10°C

Q22. Where is the Headquarters of UNESCO located?

(a) New York City
(b) Geneva
(c) Paris
(d) Washington DC

Q23. Name of the painter of famous painting, ‘Mahishasura’.

(a) MF Hussain
(b) Amrita Sher-Gil
(c) Raja Ravi Verma
(d) Tyeb Mehta

Q24. What is the work that needs to be done to increase the speed of a 1 kg ball from 2 m/s to 4 m/s?

(a) 8 J
(b) 10 J
(c) 6 J
(d) 12 J

YourMockTest.com — Free Study Material

Q25. The Ajanta Caves in Maharashtra feature paintings and sculptures that depict _____ tales.

(a) Arabic
(b) Islamic
(c) Buddhist
(d) Maratha

Q26. The volume of a given amount of water _____ between 0°C to 4°C.

(a) is zero
(b) decreases
(c) remains constant
(d) increases

Q27. Two resistance of 2Ω and 6Ω are connected in series and this combination is connected across a 12 V bettery. Find the power supplied by the battery.

(a) 10 W
(b) 18 W
(c) 16 W
(d) 14 W

Q28. An object weighs X units on the earth. If we take the same object to the moon, its weight there will be _____.

(a) zero
(b) less than X
(c) equal to X
(d) more than X

Q29. A body starts from rest. Its displacement is proportional to _____ when its acceleration is constant.

(a) time squared
(b) velocity
(c) work
(d) time

Q30. A source of voltage V maintains a current i in a circuit. The energy supplied to the circuit by the source in time t is _____.

(a) Vit
(b) 1/Vit
(c) Vi/t
(d) V/it

Q31. Who was the first governor of the Reserve Bank of India?

(a) Sir James Braid Taylor
(b) KR Puri
(c) HVR Iyengar
(d) Sir Osborne A Smith

Q32. A car covers 400 m in 20 seconds. Find the average speed (in km/hr) of the car.

(a) 72
(b) 124
(c) 108
(d) 36

Q33. If sin θ = 15/17, then cot θ = ?

(a) 8/15
(b) 8/17
(c) 15/8
(d) 17/15

YourMockTest.com — Free Study Material

Q34. In an examination, the highest score and the lowest score are different by 55 and the higher one was 9/4 times the lower one. Find the lowest score.

(a) 40
(b) 36
(c) 44
(d) 48

Q35. A number is as much greater than 50 as it is lesser than 84. What is the number?

(a) 65
(b) 66
(c) 68
(d) 67

Q36. If $x = \sqrt{125} \times \sqrt{30} \times \sqrt{6}$, then x is equal to:

(a) 175
(b) 125
(c) 136
(d) 150

Q37. A got Rs. 80 as his share of profit where the total profit was Rs. 240 and the ratio of profit distribution between A and B was x : 2. What is the value of x?

(a) 1
(b) 4
(c) 2
(d) 5

Q38. What is the median of 8, 5, 7, 9, 11, 6, 10?

(a) 9
(b) 8
(c) 10
(d) 7

Q39. If $5050 \times 0.5x = 25250$, then $2505 \div x^2 = ?$

(a) 0.2505
(b) 25.05
(c) 2.505
(d) 250.5

Q40. An article of marked price Rs. 12000 was sold. Had a discount of 15% been offered, a profit of 2% would have been made. What was the cost price?

(a) Rs. 10,200
(b) Rs. 10,000
(c) Rs. 11,000
(d) Rs. 10,800

Q41. A sum of Rs. 2,000 was spent in buying a pair of trousers. The sum spent was 2/5^(th) of the total money Shashi had with her. How much was the total money she had?

(a) Rs. 4,000
(b) Rs. 4, 250
(c) Rs. 4, 750
(d) Rs. 5,000

YourMockTest.com — Free Study Material

Q42. A machine was bought for Rs. 1,500 and a repairing charge of Rs. 100 was paid afterwards. At what price should it be sold to gain a profit of 25%?

(a) Rs. 2,040
(b) Rs. 1,960
(c) Rs. 2,000
(d) Rs. 1, 920

Q43. In angular measurement, one radian is equivalent to _____ degree (approximately).

(a) 65.27
(b) 57.27
(c) 90
(d) 180

Q44. A and B can do a work in 15 days. B and C can do the work in 20 days and A and C can do the work in 10 days. In how many days will they together completed the work?

(a) 10.67 days
(b) 10.91 days
(c) 10.71 days
(d) 9.23 days

Q45. Pipes A and B can fill a tank in 12 minutes and 16 minutes respectively. Both A and B are opened for 4 minutes and then A is closed. How much extra time will B take to fill the tank completely?

(a) 20/3 minutes
(b) 7 minutes
(c) 21/4 minutes
(d) 6 minutes

Q46. A can do 2/5 of a work in 10 days. B can do ½ of the some work in 10 days. They worked together for 5 days and then A left. In how many days will B finish the remaining work?

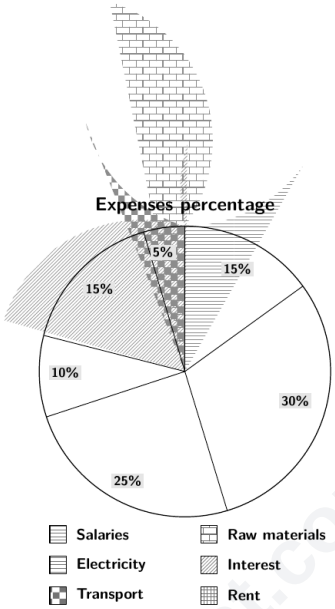
(a) 8
(b) 10
(c) 11
(d) 9

Q47. Reflection of point (-2, -6) on the Y-axis is:

(a) (2, 6)
(b) (-6, -2)
(c) (-2, 6)
(d) (2, -6)

Q48. The pie chart shows the breakup in percentage of the various expenses of a Company. Study the diagram and answer the following question.

YourMockTest.com — Free Study Material



What is the interest expense if total expenses is Rs. 25000.

(a) Rs. 2, 500
(b) Rs. 1, 800
(c) Rs. 9, 000
(d) Rs. 5, 000

Q49. A motorcycle travelled 1000 m at 36 km/hr. Find the time (in seconds) taken by the motorcycle to cover this distance.

(a) 300
(b) 100
(c) 400
(d) 200

Q50. A 4-digit number 1xy7 is divisible by 11. What is the value of x - y?

(a) -8
(b) -2
(c) -4
(d) -6

Q51. Tap M and N can together fill a cistern in 48/13 minutes. N alone can fill it in 6 minutes. How much time will M alone take to fill the cistern?

(a) 9.6 minutes
(b) 9 minutes
(c) 9.4 minutes
(d) 8.6 minutes

Q52. What is the curved surface area of a hemisphere whose radius is 7 cm? (take π = 22/7)

(a) 616 cm^2
(b) 154 cm^2
(c) 308 cm^2
(d) 924 cm^2

Q53. An airplane flies at the speed of 50 m/s. How much distance (in km) will it cover in a flight of 5 hours?

(a) 895
(b) 850
(c) 880
(d) 900

YourMockTest.com — Free Study Material

Q54. What is the distance between the points (4, 3) and (3, -2)?

(a) √26
(b) √24
(c) 6
(d) 5

Q55. sec 45° - tan 60° = ?

(a) • √3 + √2
(b) • √3 - √2
(c) (√3)/2
(d) √3 + √2

Q56. What is the least number which when doubled is perfectly divisible by 7, 12 and 15?

(a) 420
(b) 210
(c) 214
(d) 220

Q57. A sum of Rs. 10,000 amounts to Rs. 11, 449 in 2 years, when the interest is compounded annually. The interest rate percent per annum is:

(a) 6%
(b) 1%
(c) 7%
(d) 8%

Q58. The ages of X and Y are in the ratio 4 : 7. Three years earlier, the ratio of their ages was 1 : 2. What is the difference between their current ages (Y - X)?

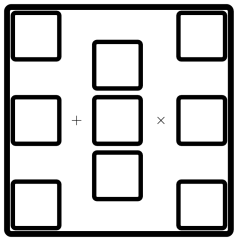
(a) 3
(b) 6
(c) 9
(d) 7.5

Q59. What is 80% of 50% of 90?

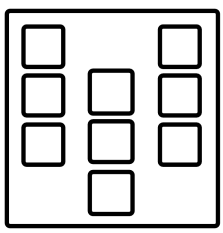
(a) 30
(b) 34
(c) 32
(d) 36

Q60. Choose the figure that is different from the rest.

(a)

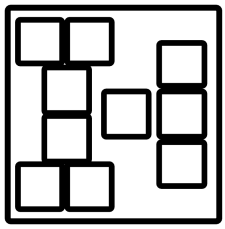


(b)

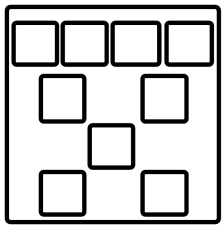


YourMockTest.com — Free Study Material

(c)



(d)



Q61. A series is given, with one number missing. Choose the correct alternative from the given ones that will complete the series.

1.14, 1.28, 1.42, ?, 1.70, 1.84

(a) 1.56
(b) 1.54
(c) 1.68
(d) 1.62

Q62. Two planes E and F start flying from the same point. E flies 7 km west, then turns to its left and flies 15 km. Meanwhile F flies 11 km east and turns right and flies 15 km. Where is F with respect to E?

(a) F is 18 km west of E
(b) F is 4 km east of E
(c) F is 18 km east of E
(d) F is 4 km west of E

Q63. Given below are some letters, that each of these letters has a corresponding number. Select the combination of numbers from the option so that the jumbled letters arranged accordingly will form a meaningful English word.

H T R U O A

1 2 3 4 5 6

(a) 6, 4, 2, 1, 5, 3
(b) 3, 4, 5, 2, 1, 6
(c) 1, 6, 2, 4, 5, 3
(d) 2, 1, 5, 3, 4, 6

Q64. I, J, K and L are sitting in a row. L and I are sitting next to each other and I and K are the ends. Who is sitting next to J?

(a) Only K
(b) L and I
(c) K and L
(d) Only L

Q65. Select the option that is related to the third term in the same way as the second term is related to the first term.

Tall : Short ? Glad : ?

(a) Sad
(b) Happy
(c) Emotion
(d) Smile

YourMockTest.com — Free Study Material

Q66. If, '+' represents '×', '-' represents '+', '×' represents '÷' and '÷' represents '-' then find the value of the following expression.

9 × 3 + 6 ÷ 2 = ?

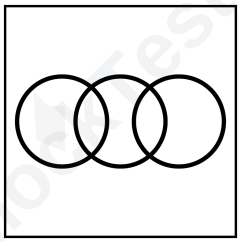
(a) 20
(b) 10
(c) 12
(d) 16

Q67. If G + H means G is daughter of H, G- H means G is sister H and G * H means G is husband of H, which of the following shows that I is the daughter of H?

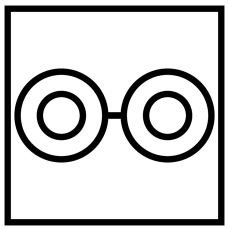
(a) I – J + F * H
(b) I + J - F * H
(c) I – J * F + H
(d) I * J - F + H

Q68. Which of the following Venn diagrams best represents the relationship between Indians, doctors and women?

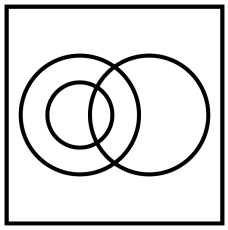
(a)



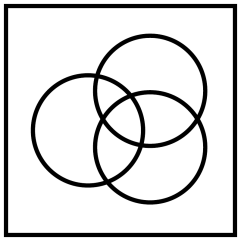
(b)



(c)



(d)



Q69. Given below are two statement, followed by two conclusion, I and II. You have to consider the statement to be true even if they seem to be at variance from commonly known facts. You have to decide which of the given conclusions, if any, follow(s) from the given statements.

Statement 1: No quadrilaterals are polygons.

Statement 2: All polygons are rhombuses.

Conclusion I: Some rhombuses are quadrilaterals.

Conclusion II: Some rhombuses are polygons.

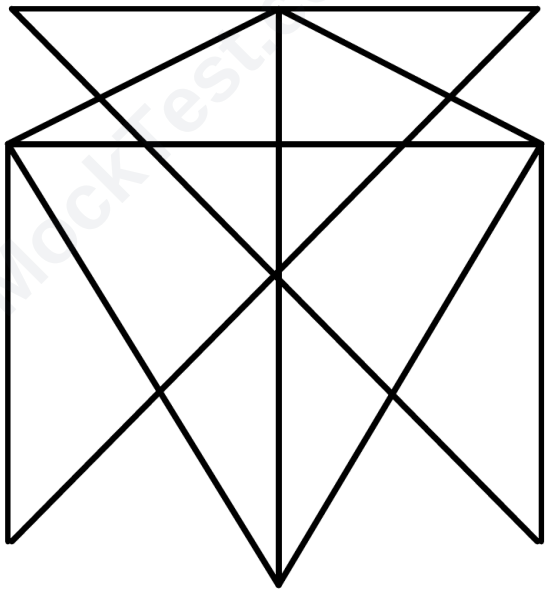
(a) Neither I nor II follows
(b) Only conclusion II follows
(c) Only conclusion I follows
(d) Both I and II follow

Q70. Which two signs should be interchanged to make the given equation correct?

9 ÷ 3 + 8 × 2 – 15 = 2

(a) × and -
(b) ÷ and -
(c) • and ×
(d) • and -

Q71. What is the minimum number of lines required to make the given image?



(a) 13
(b) 12
(c) 10
(d) 9

Q72. A series is give, with one term missing. Choose the correct alternative from the given ones that will complete the series.

OOOOOX, OOOOXX, OOOXXX, OOXXXX, ?

(a) XXXXXX
(b) OOXXXXX
(c) OOXXXX
(d) OXXXXX

Q73. If C $ D means C is daughter of D, C & D means C is mother of D and C % D means C is son of D, then what does W $ X & Y % Z mean?

(a) Z is wife of W
(b) Z is mother of W
(c) Z is father of W
(d) Z is daughter of W

YourMockTest.com — Free Study Material

Q74. Given below is a question, followed by two arguments, I and II. You have to decide which of the given arguments, if any, is a strong argument, with respect to the question.

Question: Should advertisements be banned on television?

Argument I: Yes, advertisements are immoral.

Argument II: No, advertisements bring in revenue which helps reduce cost for viewers.

(a) Only argument II is strong.
(b) Only argument I is strong.
(c) Neither I nor II is strong.
(d) Both I and II are strong.

Q75. Select the option that is related to the third number in the same way as the second number is related to the first number.

-9/11 : 11/9 ? 13/2 : ?

(a) 3/7
(b) 2/13
(c) -2/13
(d) -7/3

Q76. Given below is a statement followed by two assumption numbered I and II. You have to decide which of the assumptions is/are implicit in the statement.

Statement: The human body produces Vitamin D when exposed to sunlight.

Assumption I: The human body will have Vitamin D even if it is not consumed via food.

Assumption II: A large portion of the global population suffers from Vitamin D deficiency.

(a) Both I and II are implicit
(b) Only assumption II is implicit
(c) Neither I nor II is implicit
(d) Only assumption I is implicit

Q77. A salesperson starts from his office and drives 2 km east, then turns north and drives 7 km, then turns to his right and drives 6 km, then turns south and drives 7 km. Where is he now with respect to his starting position?

(a) 8 km east
(b) 4 km west
(c) 4 km east
(d) 8 km west

Q78. Unscramble the letters in the words given below and find the odd word out.

(a) FLOW
(b) ILNO
(c) ERTIG
(d) WCO

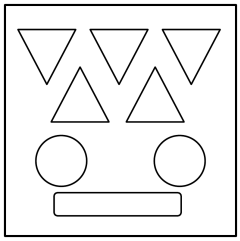
Q79. Find the odd group of letters from the given alternatives.

(a) EFG
(b) PQR
(c) VWX
(d) HJL

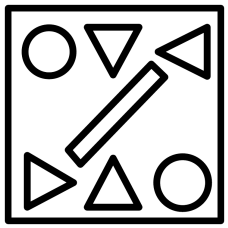
Q80. Choose the figure that is different from the rest.

YourMockTest.com — Free Study Material

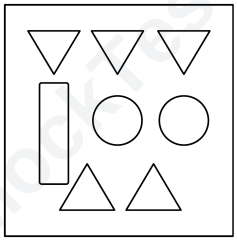
(a)



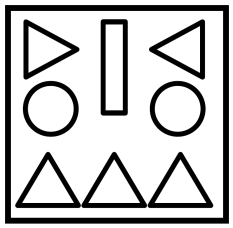
(b)



(c)



(d)

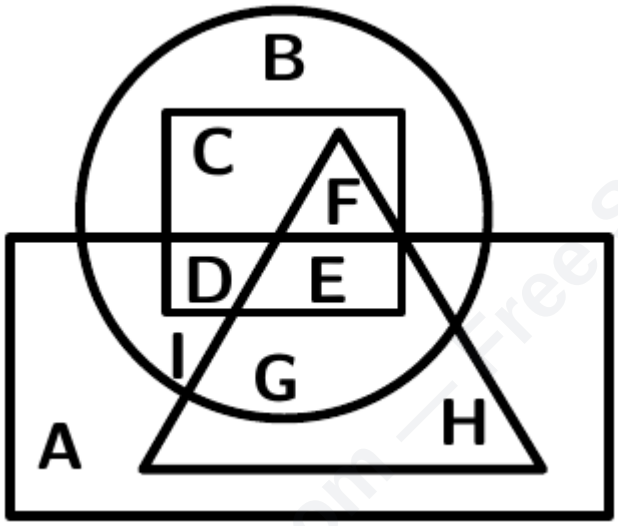


Q81. In a code language, 295 means ‘water is liquid’, 549 means ‘oil is liquid’ and 824 means ‘oil on water.’ Find the code for ‘on’.

(a) 4
(b) 2
(c) 8
(d) 5

Q82. In the following figure, square represents Chinese, triangle represents dancers, circle represents male and rectangle represents architects. Which set of letters represents dancers who are male?

YourMockTest.com — Free Study Material



(a) DEIG
(b) DEF
(c) IGH
(d) GEF

Q83. The abbreviation AC in an engineering drawing stands for _____.
(a) Across Corners
(b) Aerial Cut
(c) Attached Circle
(d) Air Conditioning

Q84. Greater the value of _____ of a material, the more rapidly it will conduct heat.
(a) melting point
(b) latent heat
(c) regelation
(d) thermal conductivity

Q85. The effort applied to move a load is 15 units and the mechanical advantage is observed to be 3. Find the load.
(a) 5 units
(b) 3 units
(c) 15 units
(d) 45 units

Q86. What is the unit's digit in 3^(66)× 6^(41) × 7^(53)
(a) 8
(b) 3
(c) 6
(d) 7

Q87. If the width of a standard engineering drawing sheet is 841 mm, then its length would be _____ mm.
(a) 1189
(b) 1250
(c) 1000
(d) 1216

Q88. A 200 g block of iron was heated from 30°C to 60°C. How much heat was transferred to the block (specific heat of iron is 450 Jkg^(-1)K^(-1))?
(a) 6000 J
(b) 27 J

(c) 2700 J
(d) 270 J

Q89. If a machine overcomes a load 'L' and the distance travelled by the load is 'Ld', the work done by the load will be _____.
(a) L × Ld
(b) L/Ld
(c) Ld/L
(d) 1/(L × Ld)

Q90. A brass rod (thermal conductivity 109 J/s m K) has an area of cross section 0.04 m² and length 20 cm. If the two end of the rod are maintained at a temperature difference of 200°C, the rate of heat flow through the rod is _____.
(a) 3.42 kJ/s
(b) 2.32 kJ/s
(c) 4.36 kJ/s
(d) 5.80 kJ/s

Q91. The effort in a class 1 lever is in _____ direction(s).
(a) three
(b) multiple
(c) two
(d) one

Q92. The velocity ratio of a simple machine is the ratio of distance traveled by the _____ to the distance traveled by the _____ in the machine.
(a) load; load
(b) effort; load
(c) load; effort
(d) effort; effort

Q93. If straight lines are drawn from various points on the contour of an object to meet a plane, the figure obtained on the plane is called the _____ of the object.
(a) development
(b) dimensioning
(c) projection
(d) animation

Q94. A _____ is a theoretical exact plane, axis or point location that GD & T or dimensional tolerances are referenced to.
(a) flange
(b) frame
(c) section
(d) datum

Q95. Molar specific heat capacity of a substance is _____.
(a) (1/μ)((Δ Q)/(Δ T))
(b) μ ((Δ Q)/(Δ T))
(c) (1/μ)((Δ T)/(Δ Q))
(d) μ ((Δ T)/(Δ Q))

Q96. In engineering drawing, the letters LH signifies _____.
(a) Level Hide
(b) Left Hand
(c) Low Heat
(d) Limit of Height

YourMockTest.com — Free Study Material

Q97. Identify the material having high coefficient of volume expansion.

(a) Brass
(b) Alcohol
(c) Glass
(d) Water

Q98. An object starts from rest at x = 0 m and moves with a constant acceleration of 1.6 m/s² along the x-axis. During its journey from x = 12.8 m to x = 20.0 m, its average velocity will be _____.

(a) 7.2 m/s
(b) 3.6 m/s
(c) 8.8 m/s
(d) 2.4 m/s

Q99. You are given a question and two statements. Identify which of the statements is/are necessary/sufficient to answer the question.

Question: What was the discount percent offered on the soap by the store?

Statements:

I) The store is giving 1 soap free on purchase of three.

II) Rs. 10 discount is offered on purchase of soap worth 36.

(a) II alone is sufficient while I alone is not sufficient
(b) I alone is sufficient while II alone is not sufficient
(c) Neither I nor II is sufficient
(d) Either I or II is sufficient

Q100. Identify the material having low coefficient of volume expansion

(a) Iron
(b) Mercury
(c) Brass
(d) Aluminium

PART B

Q101. Carry input is present in which of the following?

(a) Subtractor
(b) Comparator
(c) Half Adder circuit
(d) Full Adder circuit

Q102. In a mercury cell, zinc-mercury amalgam is used as an anode and carbon is used as a cathode. A paste of _____ is used as an electrolyte.

(a) HgO
(b) LiFe
(c) H2O
(d) H2SO4

Q103. The two coil windings of a transformer are _____

(a) electrically and magnetically linked
(b) celectrically and magnetically isolated
(c) electrically connected but magnetically isolated
(d) electrically isolated but magnetically linked

YourMockTest.com — Free Study Material

Q104. When a diode is switching from conducting state to blocking state, it has stored charge which needs to be discharged before, it blocks reverse current, this time required is known as _____.

(a) Forward Recovery Time
(b) Reverse Recovery Time
(c) Forward Conduction time
(d) Reverse Conduction Time

Q105. To measure Voltage, Current is passed through _____.

(a) a voltmeter
(b) a galvanometer
(c) a resistor
(d) an ammeter

Q106. Ideal regulated power supplies have _____ % voltage regulation.

(a) 2
(b) 7
(c) 0
(d) 5

Q107. The evolution of cell phone standards are from 1 G to 5 G, what this G indicates?

(a) Gross
(b) Generation
(c) General
(d) Gap

Q108. A digital multimeter can measure _____.

(a) voltage
(b) permeance
(c) inductance
(d) flux

Q109. What is the rating used to rate a Transformer?

(a) KV
(b) KVAR
(c) KVA
(d) KW

Q110. The output waveform of an integrator in a function generator is _____.

(a) Triangular wave
(b) Impulse wave
(c) Square wave
(d) Sine wave

Q111. Adder Circuit can be used as a Subtractor circuit by using _____.

(a) 1's/2's Complement
(b) Grey code
(c) Binary Coded Decimal
(d) Comparator

Q112. Which of the following diodes can be used as Voltage Regulator if used in reverse bias?

(a) Laser Diode
(b) Schottky Diode
(c) Zener Diode
(d) Varactor Diode

YourMockTest.com — Free Study Material

Q113. Which one of the following is not a basic MOSFET device type?

(a) Enhancement P-channel MOSFET
(b) Depletion N-channel MOSFET
(c) Narrow P-channel MOSFET
(d) Enhancement N-channel MOSFET

Q114. Which one of the following instrument is used to measure the specific gravity (or relative density) of liquids?

(a) Multi-meter
(b) Hydrometer
(c) Galvanometer
(d) Thermometer

Q115. In LCD TV, what is the full form of LCD?

(a) Liquid Crystal Display
(b) Light Controlled Display
(c) Light Controlled Diode
(d) Liquid Crystal Diode

Q116. The _____ is a device that is able to sense light levels and alter the current flowing between emitter and collector according to the level of light it receives.

(a) Resistor
(b) Phototransistor
(c) Power transistor
(d) IR LED

Q117. The capability of a power supply to maintain constant voltage or current at the output despite change in supply's load is known as _____.

(a) Input Regulation
(b) Line Regulation
(c) Load Regulation
(d) Source Regulation

Q118. The IR LED sends out light with wavelengths _____ visible light.

(a) Parallel to the
(b) Shorter than
(c) Longer than
(d) Similar to the

Q119. Which one of the below is not the application of shift register?

(a) Serial to parallel
(b) Analog to Digital
(c) Parallel to serial
(d) Data storage

Q120. Solar panels convert sun light into electricity based on the principle of _____.

(a) Electromagnetic radiation
(b) Photovoltaic effect
(c) Radio emission
(d) Heat conduction

Q121. The minimum voltage required across a linear voltage regulator to maintain regulation is known as _____.

(a) Output voltage
(b) Input voltage
(c) Load voltage
(d) Dropout voltage

YourMockTest.com — Free Study Material

Q122. Identify the circuit which is not the application of op-amp.

(a) Mixer
(b) Differentiator
(c) Integrator
(d) Comparator

Q123. The RC time constant is also called as _____.

(a) β
(b) α
(c) γ
(d) τ

Q124. Select the component which is not an example of passive SMD component.

(a) Thick film resistor
(b) Tantalum capacitor
(c) Diode
(d) Ceramic capacitor

Q125. LED is a _____ junction diode that emits light when activated.

(a) n-p-n
(b) p-n
(c) n-p
(d) p-n-p

Q126. In 3 : 8 line decoder one of the eight output bits is activated, depending on which of the following parameters

(a) Input Values from 0 to 7
(b) Next State output
(c) Previous output
(d) Clock input

Q127. Which category of instruments does an ohmmeter fall under?

(a) Moving resistance instrument
(b) Dynamometer instrument
(c) Moving coil instrument
(d) Moving iron instrument

Q128. _____ has a single input and multiple outputs.

(a) De multiplexer
(b) Decoder
(c) Full Adder
(d) Multiplexer

Q129. What happens when batteries are connected in series?

(a) The capacitance doubles, the voltage rating remains the same.
(b) The voltage doubles, the capacitance rating doubles.
(c) Voltage remains the same, capacitance stays the same.
(d) The voltage doubles, the capacity rating remains the same.

Q130. _____ is an application of electronic devices and systems that source, detect and control light.

(a) Microelectronics
(b) Thermodynamics
(c) Power devices
(d) Optoelectronics

YourMockTest.com — Free Study Material

Q131. When capacitors are connected in parallel, the total capacitance is the _____ of the individual capacitances.

(a) multiplication
(b) division
(c) sum
(d) difference

Q132. For a design of (16 : 1) multiplexer, how many select lines will be required?

(a) 1
(b) 3
(c) 4
(d) 2

Q133. Which instrument is used to measure the insulation resistance of an electric circuit relative to earth?

(a) Megger
(b) Ammeter
(c) Potential Transformer
(d) Voltmeter

Q134. Generally, wiring a solar controller to a battery storage station is done using a _____.

(a) Coaxial cable
(b) Twisted cable
(c) AWG cable
(d) waveguide

Q135. As the frequency increases, the impedance of the inductor _____.

(a) decreases
(b) remains same
(c) increases
(d) is zero

Q136. Generation of light in LED is based on which principle?

(a) Stimulated emission
(b) Spontaneous emission
(c) Spontaneous absorption
(d) Stimulated absorption

Q137. A table which will help to understand behavior of logic gates is known as _____.

(a) Matrix
(b) Parameter
(c) Gates
(d) Truth table

Q138. What is "transformer turns ratio"?

(a) The ratio of primary current to secondary flux
(b) The ratio of primary voltage to secondary current
(c) The ratio of primary turns to secondary turns
(d) The ratio of primary Flux to secondary voltage

Q139. Opto coupler provides _____ between electrical signals or elements of a circuit.

(a) Conduction
(b) Isolation
(c) Vacuum
(d) Thermal conduction

YourMockTest.com — Free Study Material

Q140. How many terminals does a 7805 IC have

(a) 4
(b) 3
(c) 2
(d) 5

Q141. _____ is defined as the property of the coil due to which it opposes the change of current flowing through it.

(a) Mutual - inductance
(b) Self - inductance
(c) Toroidal inductor
(d) Air Core inductor

Q142. What type of Flip Flop is used in Counters?

(a) Full Adder
(b) SR Flip Flop
(c) T Flip Flop
(d) Comparator

Q143. The Output is dependent only on present input?

(a) Combinational Circuits
(b) Analog Circuits
(c) Flip Flop
(d) Sequential Circuits

Q144. SMD stands for

(a) Small material diameter
(b) Small medium design
(c) Small medium device
(d) Surface mount device

Q145. The size of internal RAM of 8051 Microcontroller is _____.

(a) 128 Bytes
(b) 16 Bytes
(c) 64 Bytes
(d) 256 Bytes

Q146. In astable multivibrator using IC555 timer design, the duty cycle D is given by _____.

(a) Toff/Ton
(b) Ton/(Ton + Toff)
(c) (Ton + Toff)/Ton
(d) Ton/Toff

Q147. A Zener diode is used in _____ for voltage regulation.

(a) Forward Bias
(b) Short circuit
(c) Open circuit
(d) Reverse Bias

Q148. Batteries that cannot be recharged and are produced for single use are called?

(a) Super Charged Batteries
(b) Lead Acid Batteries
(c) Primary Batteries
(d) Secondary Batteries

YourMockTest.com — Free Study Material

Q149. Which device can detect a physical quantity and convert it into an electrical signal?

(a) Transmitter
(b) Actuator
(c) Sensor
(d) Receiver

Q150. Identify the temperature sensor which is not used in process industries.

(a) RTD
(b) thermistor
(c) Thermocouple
(d) piezoelectric

Q151. What is the peak reverse voltage of a diode?

(a) The maximum amount of voltage the diode can withstand in Forward-bias
(b) The maximum amount of voltage the diode can withstand in reverse-bias
(c) The forward voltage drop of a diode
(d) The internal voltage drop of a diode

Q152. The lead storage battery consists of a lead anode and the cathode is a lead grid packed with lead dioxide. _____ is used as an electrolyte.

(a) Nitric acid
(b) Picric acid
(c) Boric acid
(d) Sulfuric acid

Q153. Electrons are _____ charged

(a) Positively
(b) Negatively
(c) Neutrally
(d) Dually

Q154. What are Ohmic Losses in a Transformer?

(a) The losses generated due to variation in current passing through the windings
(b) The losses generated due to variation in flux passing through the windings
(c) Iron Loss
(d) The losses due to varying electric field

Q155. Which of the following IC is an BCD to Seven Segment Display decoder

(a) IC 74138
(b) IC 741
(c) IC 7447
(d) IC 7400

Q156. How many 16 bit registers are there in 8051?

(a) 8
(b) 1
(c) 4
(d) 2

Q157. Multi-vibrators can be used to produce which type of signals?

(a) Triangular wave
(b) Impulse
(c) Sine wave
(d) Square wave

YourMockTest.com — Free Study Material

Q158. Dry cell is a _____.

(a) Lithium polymer battery
(b) Zinc-carbon battery
(c) Salt water battery
(d) Lead acid battery

Q159. A _____ is a device that emits light through a process of optical amplification based on the stimulated emission of electromagnetic radiation.

(a) Diode
(b) Laser
(c) Resistor
(d) Tristor

Q160. Toggle condition is present in which of the following?

(a) D Flip Flop
(b) Clocked SR Flip Flop
(c) SR Latch
(d) JK Flip Flop

Q161. Which of the following is a 4 bit Comparator IC?

(a) IC 7485
(b) IC 7805
(c) IC 555
(d) IC 7400

Q162. The no-load output voltage of an ideal half wave rectifier is _____.

(a) Vpeak = Vrms/2
(b) Vpeak = Vrms/4
(c) Vrms = Vpeak/2
(d) Vrms = Vpeak/4

Q163. Define e-waste.

(a) Easy waste
(b) Environmental waste
(c) Electricity waste
(d) Electronic waste

Q164. Lead acid batteries consist of flat lead plates immersed in a pool of _____.

(a) Ferrous Sulfate
(b) Water
(c) Electrolyte
(d) Polymer

Q165. The internal V_(ref) voltage of IC723 is

(a) 9 V
(b) 11 V
(c) 7 V
(d) 2 V

Q166. _____ is defined as the number of cycles per second.

(a) RMS value
(b) Instantaneous Value
(c) Voltage
(d) Frequency

YourMockTest.com — Free Study Material

Q167. Which type of a combinational circuit is used to convert, multiple inputs to single output?

(a) Multiplexer
(b) Demultiplexer
(c) Decoder
(d) Counter

Q168. Isolation Transformers Block transmission of which of the below mentioned component in a signal from one circuit to another

(a) DC Component
(b) Capacitive Component
(c) AC Component
(d) Inductive Component

Q169. Generally _____ is used to construct shift registers.

(a) D flip flop
(b) Half Adder
(c) Full adder
(d) Full Subtractor

Q170. Which is not related to the counter circuit design?

(a) Karnaugh maps
(b) Erlang's table
(c) Excitation table
(d) State table

Q171. Race Around condition can be avoided in Digital logic circuits using _____.

(a) Shift Register
(b) Full Adder
(c) Master Slave JK Flip Flop
(d) AND Gate

Q172. For which of the following diodes when the voltage is increased the current flowing through it decreases?

(a) Tunnel Diode
(b) Schottky Diode
(c) Laser Diode
(d) Gunn Diode

Q173. Which of the following is not the type of inductor?

(a) Carbon core
(b) Iron core
(c) Thin film
(d) Air core

Q174. Which of the following is a Basic 4 bit Adder IC?

(a) IC 741
(b) IC 7400
(c) IC 7483
(d) IC 7415

Q175. What is the long form of LVDT?

(a) Linear Voltage Defined Transformer
(b) Linear Variable Differential Transformer
(c) Low Voltage Differential Transducer
(d) Low Variable Defined Transducer

YourMockTest.com — Free Study Material

ANSWER KEY

1	a	2	a	3	a	4	a	5	a	6	a	7	a	8	a	9	a	10	a
11	a	12	a	13	a	14	a	15	a	16	a	17	a	18	a	19	a	20	a
21	a	22	a	23	a	24	a	25	a	26	a	27	a	28	a	29	a	30	a
31	a	32	a	33	a	34	a	35	a	36	a	37	a	38	a	39	a	40	a
41	a	42	a	43	a	44	a	45	a	46	a	47	a	48	a	49	a	50	a
51	a	52	a	53	a	54	a	55	a	56	a	57	a	58	a	59	a	60	a
61	a	62	a	63	a	64	a	65	a	66	a	67	a	68	a	69	a	70	a
71	a	72	a	73	a	74	a	75	a	76	a	77	a	78	a	79	a	80	a
81	a	82	a	83	a	84	a	85	a	86	a	87	a	88	a	89	a	90	a
91	a	92	a	93	a	94	a	95	a	96	a	97	a	98	a	99	a	100	a
101	a	102	a	103	a	104	a	105	a	106	a	107	a	108	a	109	a	110	a
111	a	112	a	113	a	114	a	115	a	116	a	117	a	118	a	119	a	120	a
121	a	122	a	123	a	124	a	125	a	126	a	127	a	128	a	129	a	130	a
131	a	132	a	133	a	134	a	135	a	136	a	137	a	138	a	139	a	140	a
141	a	142	a	143	a	144	a	145	a	146	a	147	a	148	a	149	a	150	a
151	a	152	a	153	a	154	a	155	a	156	a	157	a	158	a	159	a	160	a
161	a	162	a	163	a	164	a	165	a	166	a	167	a	168	a	169	a	170	a
171	a	172	a	173	a	174	a	175	a										

YourMockTest.com — Free Study Material

More previous year papers and mock tests: **www.yourmocktest.com/pyq**