

SHAKTHII ACADEMY

Increasing Confidence ; Reaching Goals

10, Jayammal Street, Shenoy Nagar (Near Metro) ,Chennai – 30

RRB JE Previous Year Question with Answer 2011

1. Which of the following states of India has the longest coastline?
1) Kerala 2) Gujarat 3) Tamil Nadu 4) Andhra Pradesh
2. Where was the capital of Ranjit Singh, the king of Punjab, located?
1) Peshawar 2) Amritsar 3) Lahore 4) Rawalpindi
3. The fundamental duties are enshrined in which Article of the India Constitution?
1) Article 51 A 2) Article 50 A 3) Article 50 B 4) Article 51 B
4. The mineral structure of diamond is
1) Zinc 2) Nickel 3) Nitrogen 4) Carbon
5. Which part of the body is affected by Jaundice?
1) Small intestine 2) Liver 3) Stomach 4) Pancreas
6. Which country of the world has the largest number of post offices?
1) France 2) China 3) India 4) Japan
7. Uttar pradesh tops in the production of -in India.
1) sugar cane 2) rice 3) barley 4) wheat
8. The safe temperature to keep eatables fresh in refrigerator is
1) 4°C 2) 0°C 3) 18°C 4) 10°C
9. The instrument used to measure the blood pressure of human body is _____
1) Barometer 2) Altimeter 3) Sphygmomano meter 4) Tachometer
10. Automatic wrist watches get energy from _____
1) twist in spring 2) liquid crystal 3) kinetic energy 4) movement of our hands

11. When a television is switched on

- 1) We listen the sound first and then see the picture
- 2) We see the picture first and then listen sound
- 3) It depends on the TV manufacturing company
- 4) We get audio and visual at the same time

12. Goitre in human body is caused due to deficiency of _____

- 1) Iodine
- 2) Phosphorus
- 3) Nitrogen
- 4) Calcium

13. Who sent Huensant as ambassador in the court of Harsha?

- 1) Fu Chen-Chu
- 2) Tai Sung
- 3) Tung Cuan
- 4) None of these

14. Who wrote Akbarnama?

- 1) Faizi
- 2) Abul Fazal
- 3) Abdul Rahim Khankhana
- 4) Abdul Kadir Badayun

15. Which metal is generally used to make electro magnets?

- 1) Copper
- 2) Nickel
- 3) Iron
- 4) Cobalt

16. Artificial silk is called _____

- 1) Rayon
- 2) Dacron
- 3) Fibre glass
- 4) Nylon

17. Dynamo converts _____

- 1) electrical energy into mechanical energy
- 2) High voltage into low voltage
- 3) Low voltage into high voltage
- 4) Mechanical energy into electrical energy

18. The instrument used to measure the electric current is

- 1) Barometer
- 2) Altimeter
- 3) Ammeter
- 4) Anemometer

19. The best conductor of electricity is

- 1) Aluminium
- 2) Copper
- 3) Iron
- 4) Silver

20. Urea supplies- lo the plants.

- 1) Calcium
- 2) Phosphorus
- 3) Potassium
- 4) Nitrogen

21. Mica is used in _____

- 1) Furnace
- 2) Electric industry
- 3) Steel Industry
- 4) Glass Manufacturing

22. Which of the following is a physical change?

- 1) Burning of cooking gas
3) Digestion of food
- 2) Fermentation of milk
4) Dissolution of sugar in water

23. The chemical compound used in photography is
- 1) Aluminium Hydroxide
3) Potassium Nitrate
- 2) Silver Bromide
4) Sodium Chloride

24. What causes cholera?
- 1) Bacteria
2) Virus
3) Fungus
4) Algae

25. An apparatus for viewing objects lying above the eye level of the observer and whose direct vision is obstructed is known as _____
- 1) Photometer
2) Periscope
3) Planimeter
4) Spectrometer

26. Which atom has only one electron?
- 1) Potassium
2) Nitrogen
3) Oxygen
4) Hydrogen

27. What the electrode that is connected to the negative pole of the battery is called?
- 1) Cathode
2) Electroplate
3) Ion
4) Anode

28. The organic acid present in vinegar is _____
- 1) butanoic acid
2) propanoic acid
3) methanoic acid
4) ethanoic acid

29. Which of the following is an example of fossil fuel?
- 1) Coke
2) Natural gas
3) Coal gas
4) Producer gas

30. Water gas consists of
- 1) a mixture of carbon monoxide and hydrogen
3) a mixture of carbon monoxide and nitrogen
- 2) water vapour and coal dust
4) water vapour and methane

31. A body strike the floor vertically with a velocity u and rebounds at the same speed. The change of speed would be _____
- 1) $3u$
2) Zero
3) u
4) $2u$

32. Which of the following is different from others?
- 1) Speed
2) Time
3) Density
4) Force

33. Momentum has the same unit as that of _____
- 1) torque
2) couple
3) impulse
4) moment of momentum

34. What is the momentum of a man of mass 75 kg when he walks with a uniform velocity of 2m/s?
 1) 50 kg m/s 2) 75 kg m/s 3) 100 kg m/s 4) 150 kg/s
35. At the centre of the earth, the value of g becomes _____
 1) infinity 2) unity 3) zero 4) None of these
36. Two unequal masses possess the same momentum, then the kinetic energy of the heavier mass is _____ the kinetic energy of the lighter mass.
 1) smaller than 2) greater than 3) same as 4) none of these
37. 15 Bulbs of 60 W each, run for 6 hours daily and a fridge of 300 W runs for 5 hours daily. Find the forthrightly bill at the rate of 30 paise per unit.
 1) Rs.31.05 2) Rs.45.55 3) Rs.62.10 4) Rs.75.10
38. Sheaths are used in cables to _____
 1) Provide proper insulation 2) Provide mechanical strength
 3) Prevent ingress of moisture 4) None of these
39. For the stable operation of interconnected system, the passive element that can be used as interconnecting element is
 1) Reactor 2) Resistor 3) Capacitor 4) Resistor and Capacitor
40. The insulation resistance of a cable of length 10 km is $1M\Omega$, its resistance for 50 km length will be _____
 1) $M\Omega$ 2) $5M\Omega$ 3) $0.2M\Omega$ 4) $10M\Omega$
41. The rate of change of momentum is directly proportional to _____
 1) Force 2) Inertia 3) Moment 4) None of these
42. If four $80\ \mu F$ capacitors are connected in parallel, the net capacitance is _____
 1) $20\ \mu F$ 2) $80\ \mu F$ 3) $160\ \mu F$ 4) $320\ \mu F$
43. The transformer used to decrease the magnitude of the alternating voltage is a _____
 1) step-up transformer 2) step-down transformer
 3) step-in transformer 4) step-out transformer
44. When two bodies are rubbed against each other
 1) They acquire equal and similar charges 2) They acquire equal and opposite charges

3) They acquire unequal and similar charges 4) They acquire unequal and opposite charges

45. Lightning is caused in the sky due to the flow of charge between _____

- 1) two oppositely charged clouds 2) two similarly charged clouds
3) one neutral and one charged cloud 4) None of the these

46. Which of those converts sunlight directly into electrical energy?

- 1) Solar cooker 2) Solar cell 3) Solar furnace 4) Solar water heater

47. Electric charge can flow through _____

- 1) insulators 2) conductors 3) both insulators and conductors
4) neither conductors nor insulators

48. The electric current which changes its direction after fixed intervals of time called _____

- 1) induced current 2) direct current 3) alternating current 4) None of these

49. A device used to stabilise the voltage supplied by electric supply station is a _____

- 1) dynamo 2) transformer 3) ammeter 4) generator

50. Silver is a

- 1) magnetic substance 2) good conductor of electricity 3) bad conductor of electricity
4) none of these

51. An instrument used to observe heavenly bodies is the _____

- 1) telescope 2) camera 3) microscope 4) periscope

52. The maximum percentage in the atmosphere is of

- 1) Oxygen 2) Nitrogen 3) Carbon dioxide 4) Helium

53. What is the function of Ozone layer?

- 1) Prevents harmful infra-red rays of the sun from reaching the earth
2) Prevents radiation escaping the earth, hence keeping it warm
3) It is essential for rainfall
4) It filters harmful ultra -violet rays of the sun

54. In the International system of measurement, the Kelvin' is the unit of _____

- 1) mass 2) temperature 3) electric current 4) air

55. The Sanchi Stupa was constructed by _____
1) Chandragupta 2) Ashoka 3) Kunal 4) Harshavardhan
56. The first atomic power plant was started in India at _____
1) Narora 2) Tarapur 3) Rawat bhata 4) None of these
57. To conserve the eatables we use _____
1) Benzoic acid 2) Sodium chloride 3) Sodium carbonate 4) None of these
58. The least polluting fuel is _____
1) Hydrogen 2) Diesel 3) Kerosene 4) Coal
59. Malaria spreads by _____
1) Culex mosquito 2) Anopheles mosquito 3) Water borne mosquito 4) None of these
60. Heart disease is caused by increase in _____
1) Glucose 2) Cholesterol 3) Heparin 4) Haemoglobin
61. Which vitamin helps in clotting of blood?
1) Vitamin B 2) Vitamin B₂ 3) Vitamin K 4) Vitamin D
62. The chief source of energy is _____
1) Vitamin 2) Minerals 3) Carbohydrate 4) Water
63. The chief centre of learning during lord Buddha era was-
1) Nalanda 2) Delhi 3) Varanasi 4) Benin Cava
64. Mustard is grown in _____
1) Kharif season 2) Rabi season 3) Jayad season 4) Whole year
65. In case the posts of President and Vice-President lie vacant, who officiates as the President?
1) Speaker of the Lok Sabha 2) Chief Justice of India
3) Attorney General of India 4) Chairman of Rajya Sabha
66. Magnetic needle directs to _____
1) East 2) Sky 3) North 4) West

67. Lord Buddha got emancipation (Mahapari nirvana) at _____
1) Kushinagar 2) Lumbini 3) Bodh Gaya 4) Kapilvastu

68. The colours on a colour code resistor are green, white, orange and silver. Find the value of resistor.
1) $5.9 \times 10^3 \pm 10\%$ 2) $59 \times 10^3 \pm 10\%$ 3) $590 \times 10^3 \pm 10\%$ 4) $5900 \times 10^2 \pm 10\%$

69. The eddy current loss is directly proportional to
1) Area of metal 2) Volume of metal 3) Length of metal 4) Weight of metal

70. Direction of dynamically induced e.m.f is given by _____
1) Lenz's law 2) Flemings right hand rule 3) Flemings left hand rule 4) Cork screw rule

71. The Rowlatt Act, 1919 empowered the British Government to:
1) extend the period of imprisonment for Indians
2) close down any industrial unit at its discretion
3) release all the political prisoners by 1921
4) detain a person for any duration without trial

72. The latitude of a place situated on the equator is:
1) 0° 2) $23 \frac{1}{2}^\circ$ 3) $33 \frac{1}{2}^\circ$ 4) $66 \frac{1}{2}^\circ$

73. The purpose of inclusion of Directive Principles in (he Constitution is to establish:
1) A Social democracy 2) Gandhian democracy
3) Social and economic democracy 4) Political democracy

74. A fisherman is stranded in a lake because the motor of his motor-boat has failed. What should he do to reach the shore?
1) He should start walking in his boat towards the shore
2) He should start throwing the fish he has collected away from the shore
3) He should lie Hat on his boat
4) He should start throwing the fish he has collected towards the shore

75. The elements in the portland cement is/are _____
1) Silica, Alumina and Magnesia 2) Lime, Silica and Magnesia
3) Lime, Silica and Iron oxide 4) Lime, Silica and Alumina

76. The Indian Constitution came into force on _____
1) January 21, 1950 2) January 23, 1950 3) January 26, 1950 4) January 30, 1950

77. Insulin activates in

- 1) Pancreas 2) Parathyroid 3) Liver 4) Pituitary

78. The whole structure of the world is regulated by _____

- 1) Magnetic force 2) Gravitational force 3) Electric force 4) None of these

79. In India State Legislature includes _____

- 1) Legislative Assembly & Legislative Council
2) Legislative Assembly & Council of Ministers
3) Governor, Legislative Assembly & Legislative Council
4) Only Legislative Assembly

80. Which country is on the top in Gold production?

- 1) China 2) South Africa 3) Brazil 4) Argentina

81. Who wrote "Causes of the Indian Mutiny"?

- 1) Sayyid Ahmad Khan 2) D.H.Buchanan 3) R.P.Dutt 4) Chittaranjan Das

82. Ranji Trophy and Aga Khan Cup are associated with:

- 1) Cricket and Volleyball 2) Badminton and Hockey
3) Cricket and Football 4) Cricket and Hockey

83. Where is the headquarters Of the International Red Cross Committee?

- 1) Prague 2) Geneva 3) Moscow 4) Berlin

84. Which Article in the Indian Constitution empowers the President to dissolve the Lok Sabha?

- 1) Article 82 2) Article 84 3) Article 85 4) Article 90

85. Which among the following countries has made 'euthanasia' legally valid?

- 1) Newzealand 2) Denmark 3) Australia 4) Netherlands

Directions (86-88): Find the missing in the following series.

86. 6, 10, 27, 52, 153, ?

- 1) 308 2) 305 3) 304 4) 306

87. 12, 15, 30, 37.5, 75, ?

- 1) $93 \frac{1}{2}$ 2) $93 \frac{3}{5}$ 3) $93 \frac{3}{4}$ 4) $93 \frac{1}{4}$

88. 88, 56, 19, ?

- 1) 8 2) 7 3) 10 4) -8

Directions (89-91): In the following number series, one of the numbers does not fit into the series. Find the wrong number.

89. 7, 9, 16, 27, 47, 77, 119

- 1) 9 2) 16 3) 77 4) 27

90. 4, 5, 12, 39, 160, 804, 4836

- 1) 12 2) 804 3) 39 4) 4836

91. 844, 420, 208, 102, 47, 22.5, 9.25

- 1) 420 2) 208 3) 47 4) 22.5

92. In a certain code "DEVIL" is written as ABSEFI. How is "OTHER" written in that code?

- 1) LRECO 2) LQEBO 3) LWEBU 4) RWKHU

93. In a certain code language "637" means sea is black. "547" means colour is beautiful and "35" means black colour. Which digit in the language means beautiful?

- 1) 6 2) 4 3) 5 4) 3

Directions (94-98): Read the following information to answer the given questions:

- (i) A, B, C, D, E and F are six family members.
- (ii) There is one doctor, one lawyer, one pilot, one student and one housewife.
- (iii) There are two married couples in the family
- (iv) F who is a lawyer is father of A.
- (v) B is a pilot and mother of C
- (vi) D is grandmother of C and is a housewife
- (vii) E is father of F and is a doctor
- (viii) C is brother of A

94. How many female members are in the family?

- 1) 3 2) 2 3) 3 or 4 4) None of these

95. How is A related to D?

- 1) Granddaughter 2) Grandson 3) Son 4) Either granddaughter or grandson

96. Which of the following statements is definitely true?

- 1) A is engineer 2) E is the father of the pilot

3) D is the mother of the Pilot 4) F is the father of the engineer

97. Who is student?

1) Either C or A 2) B's son 3) A 4) C

98. Which of the following is one of the pair of married couples?

1) FB 2) FA 3) CF 4) FD

Directions (99-100): Find the wrong one.

99. 1) River 2) Pond 3) Well 4) Tank

100. 1) North 2) Right 3) East 4) South

101. The basis for measuring thermodynamic property of temperature is given by _____

1) zeroth law of thermodynamics 2) first law of thermodynamics
3) second law of thermodynamics 4) third law of thermodynamics

102. One wall is equal to _____

1) 1 Nm/s 2) 1 N/mt 3) 1 Nm/t 4) 1 k Nm/mt

103. Work done is zero for the following process _____

1) constant volume 2) free expansion 3) throttling 4) all of the above

104. One calorie in kgm is equal to

1) 0.427 2) 4.27 3) 42.7 4) 427

105. On volume basis, air contains following parts of Oxygen

1) 21 2) 23 3) 25 4) 77

106. Universal gas constant is defined as equal to product of the molecular weight of the gas and

1) specific heat at constant pressure 2) specific heat at constant volume
3) ratio of two specific heat 4) gas constant

107. Strictly speaking all engineering processes are _____

1) quasi-static 2) thermodynamically in equilibrium 3) irreversible 4) reversible

108. In a free expansion process

1) work done is zero 2) heat transfer is zero

3) both (1) and (2) 4) work done is zero but heat increases

109. Which of the following process is irreversible process

1) isothermal 2) adiabatic 3) throttling 4) all of the above

110. Minimum work in compressor is possible when the value of adiabatic index n is equal to

1) 0.75 2) 1 3) 1.27 4) 1.35

111. In DC motor the direction of induced emf is opposite to main bars as per _____

1) Homing's left hand rule 2) lenz's law
3) Homing's right hand rule 4) faradays' law

112. The condition for max power developed by the motor _____

1) $E_b = v/2$ 2) Cost losses = variable losses 3) Both (1) and
4) $I^2 aRa = \text{mechanical loss}$

113. The T_a/I_a graph of a DC series motor is a _____

1) parabola from no load to over load 2) straight line through out
3) parabola up to full load and a time at over load 4) parabola through out

114. 220V shunt motor develops torque of 54 nM at armature current of 10A. The torque produced when the armature current is 20A is _____

1) 54 NM 2) 81 N.M 3) 108 N.M 4) 27 N.M

115. Which type of DC generator is used in welding machines _____

1) series generator 2) shunt generator 3) cumulatively compound
4) differential compound

Answer:

1 . 2	2 . 3	3 . 1	4 . 4	5 . 2	6 . 3	7 . 4	8 . 1	9 . 3	10 . 1
11 . 1	12 . 1	13 . 2	14 . 3	15 . 3	16 . 1	17 . 4	18 . 3	19 . 4	20 . 4
21 . 2	22 . 4	23 . 2	24 . 1	25 . 2	26 . 4	27 . 1	28 . 2	29 . 1	30 . 1
31 . 4	32 . 2	33 . 3	34 . 4	35 . 3	36 . 1	37 . 1	38 . 1	39 . 3	40 . 2
41 . 1	42 . 4	43 . 2	44 . 2	45 . 1	46 . 2	47 . 2	48 . 3	49 . 2	50 . 2
51 . 1	52 . 2	53 . 4	54 . 2	55 . 2	56 . 2	57 . 1	58 . 1	59 . 2	60 . 2
61 . 3	62 . 3	63 . 1	64 . 2	65 . 2	66 . 3	67 . 1	68 . 2	69 . 2	70 . 2
71 . 4	72 . 2	73 . 3	74 . 3	75 . 3	76 . 3	77 . 1	78 . 2	79 . 3	80 . 2

81 . 2	82 . 4	83 . 4	84 . 2	85 . 4	86 . 3	87 . 3	88 . 4	89 . 2	90 . 2
91 . 3	92 . 2	93 . 2	94 . 4	95 . 4	96 . 4	97 . 1	98 . 1	99 . 1	100 . 2
101.1	102.1	103.4	105.1	106.4	107.3	108.3	109.3	110.2	111.2
112.1	113.3	114.3	115.4						

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