BEL Placement Paper Questions

1. In which of the following movements 'Vande Mataram' was adotped for the first time as a slogan for agitation?

(A) Revolt of 1857

(B) Partition of Bengal in 1905

(C) Non-cooperation Movement in 1922

(D) Quit India Movement in 1942

2. Who warned Gandhiji not to encourage fanaticism of Muslim religious leaders and their followers?

(A) Agha Khan

(B) AjmaI Khan

(C) Hasan Imam

(D) Mohammad Ali Jinnah

3. Which one of the following is not correct about the Congress Session.of Lucknow, 1916?

(A) Ambika Charan Majumdar was not the president of this session

(B) In this session the reunion between the liberal and the extremist was established

(C) Mahatma was apprised the problems of the peasants Champaran for the first time

(D) None of the above

4. Kanpur conspiracy case was against the leaders of?

(A) Khilafat Movement

(B) Non-cooperation Movement

(C) Communist Movement

(D) Revolutionary Movement

5. In India "Currency Notes issue system" is based on?

(A) Minimum reserve system

(B) Proportional reserve system

(C) Fixed exchange rate system

(D) Full convertibility system

6. 'Disguised' unemployment means?

(A) Persons with no jobs

(B) Unemployment among house wives

(C) Unemployment among per sons above 60 years pf age

(D) Employment of more persons in a job which lesser number of persons can perform

7. Which of the following statements are true about the income tax in India?

1. It is a progressive tax,

2. It is a direct tax.

3. It is collected by the Government.

4. It is a proportional tax Select the correct answer from the code given below

Codes:

(A) 1 only

(B) 1 and 2 only

(C) 1,2and3only

(D) 2, 3 and 4 only

8. ‘SIDBI’ has been established to-

(A) Finance small scale industries

(B) Finance cottage industries

(C) Finance large scale industries

(D) Finance public sector under takings

9. Gangubai Hangal, who died a few months ago, was a?

(A) Classical singer

(B) Dancer

(C) Painter

(D) Sitar player

10. Deep Joshi has recently been given Raman Magsaysay Award in the category of?

(A) Government service

(B) Public service

(C) Community leadership

(D) Emergent leadership

11. The missing number in the following series: 5,10,13,26,29, 58, 61,…Is?

(A) 122

(C) 128

(B) 125

(D) 131

12. If 2 jeans and 3 shirts cost Rs. 4,000 and jeans and 2 shirts cost Rs. 3,500, how much does a jeans cost?

(A) Rs. 1,500

(B) Rs 1,000

(C) Rs. 500

(D) Rs. 2,000

13. Which one of the following expresses error in computer data?

(A) chip

(B) byte

(C) bug

(D) bit

14.Assertion (A) Graphite is a good lubricant. Reason (R) Graphite is good conductor of electricity. Select the correct answer from the codes given below Codes:

(A) Both (A) and (R) are true and (A) is the correct explanation of (A)

(B) Both (A) and (A) are true but (H) is not the correct explanation of (A)

(C) (A) is true but (R) is false

(D) (A) is false but (A) is true

15. Acid rain is caused by pollution ot environment by?

(A) Carbon dioxide and Nitrogen

(B) Carbon monoxide and Carbon dioxide

(C) Ozone and Carbon dioxide

(D) Nitrous oxide and Sulphur dioxide

16. The professional printed circuit board generally use the following as the raw material:

1.Paper base bakelite copper clad sheet

2. Glass epoxy copper clad sheet

3.Tin plated Nylon sheet

4. Silver plated pyrex sheet

17. Many switch contacts use silver as the material because

1. It is a good electrical conductor with low contact resistance

2. Silver does not tarnish

3. It is easily shaped as per requirement

4. It is very hard and does not wear off

18. A resistance of approximate value 85W is to be measured by using an ammeter of range 0-1 A having a resistance of 20 W and voltmeter of range 0-50V having a resistance of 5000W.

Two arrangement for the measurement are shown in the figure below. Which method would you recommend?

1. Method X

2. Method Y

3. Either X or Y

4. Neither X nor Y

19. The value of capacitance across points A & B in the circuit shown below is (in microfarads)

a. .3 b. 1 c. 0.67 d. 0.33

20. It is proposed to fabricate a simple Ohm meter for measuring resistor values. A milliammeter with an internal resistance of 50 W is available. Choosing a configuration using a 3 V battery, a large resistance and the ammeter in a loop, the unknown resistor is proposed to be measured by noting the current initially and then connecting the unknown resistor across

the ammeter. If the ratio of the two current is 2, what is the value of the unknown resistor (rn W) ?

a. 3000 b. 150 c. 100 d. 50

21.The current I flowing into the branch indicated by an arrow in the circuit shown is equal to

a. 2 Amp b. 0.5 Amp c. 1 Amp d. 0.25 Amp

22. For the circuit shown, the maximum power is delivered to the load resistance RL when the value of Rg is

a. 2 ohms b. zero c. 10 ohms d. infinity

23. A signal generator is available in the laboratory, which is in good condition except for the attenuator dial which has got displaced. In order to calibrate this, a high frequency oscilloscope is available. At a particular setting of the knob an open circuit voltage of 450 mV rms is measured. If the impedance of the generator is 50 ohms, the setting of the attenuator dial is to be adjusted for

a. 6 dBm b. 1 dBm c. 0 dBm d. 10 dBm

24. The relation Loge (X + Loge (1 + X) = 0 also means that

1. X2 + X + 1 = 0

2. X2 + X - 1 = 0

3. X2 + X + e = 0

4. X2 + X – e = 0

25. The Laplace transform of the function f(t) = cos wt is

1. w/(s2 + w2)

2. s2/(s2 - w2)

3. w2/(s2 + w2)

4. s/(s2 + w2)

26. If a = b = c, one value of X which satisfies the equation

=0 is given by

a. x=a b. x=b c. x=c d. x=0

27. An LC oscillator is being analysed. If the LC tank circuit (with quality factor = Q) is isolated from the amplifying device, the impedance at the resonant frequency as measured looking into the amplifier will be

1. Q r [LC]1/2

2. ½ rp r [LC]1/2

3. – Q r[LC]1/2

4. Q r [LC]1/2

28. A battery eliminator is required to be constructed and an assortment of rectifiers, resistors and capacitors is available. However, the step down transformer available has no center tap. The following configurations for the rectifier are feasible. The one giving the lowest ripple will be

1. Full wave rectifier

2. Half wave rectified

3. Bridge rectifier

4. None

29. Chokes used in rectifier filter circuits are wound on a core with a small air gap. This is done in order to

1. Get as high an inductance as possible

2. Prevent saturation of the core

3. Absorb the ripple effectively

4. Prevent loading the transformer

30. An integrated circuit linear regulator is used at the output of a power supply having a ripple of 1 V rms. Assuming that the IC represents a typical design generally available, the output rms ripple to be expected will be

a.. 0.1 V rms b. 0.1 mV c. 100 mV d. 1.0 V rms

Here are the details of 2011 BEL Placement Paper - II job in Bharat Electronics Limited - BEL

1. Which one of the following is called the ‘metal of future’?

(A) Copper

(B) Iron

(C) Titanium

(D) Aluminum

2. The earliest coins of India were made of ?

(A) Copper

(B) Gold

(C) Lead

(D) Silver

3. The Mongols appeared for the first time on the banks of Indus during the reign of?

(A) Balban

(B) Iltutrnish

(C) Qutubuddin Aibak

(D) Razia

4. The first woman ruler of medieval India was?

(A) Chand Bibi

(B) Durgavati

(C) Noorjahan

(D) Razia

5. The Moplah Rebellion (1921) took place in?

(A) Malabar

(B) Marathawada

(C) Telengana

(D) Vidarbha

6. Which part of the Constitutions of India has been described as the: Soul of the Constitution ?

(A) Directive principles of State policy

(B) Fundamental rights

(C) Preamble

(D) Right to constitutional remedies

7. The first state to implement the Panchayati Raj System in India was?

(A) Uttar Pradesh

(B) Rajasthan

(C) Gujarat

(D) Karnataka

8. Who has the right to seek advisory opinion of the Supreme Court on any question of law?

(A) Prime Minister

(B) President

(C) Any High Court

(D) All of the above

9. Consider the following statements about the Governor of a State

1. He is appointed by the President.

2. He holds office at the pleasure of the President.

3. The executive power of the: State vests in him.

4. Normally he holds office for five years.

Select the correct answer from the codes given below

(A) l and 2

(B) 1,2 and 3

(C) 1,2 and 4

(D) All the four

10. Which one of the following pairs is not correctly matched ?

(A) Ahmedabad—Sabarmati

(B) Lucknow —Gomti

(C) Bhubaneshwar—Mahanadi

(D) Ujjain-Shipra

11. Dilwara Jain temple is situated at?

(A) Palitana

(B) Mount Abu

(C) Sonagiri

(D) Girinarji

12. Which one of the following is the biggest shipping canal in the world?

(A) Kiel Canal

(B) Panama Canal

(C) Soo Canal

(D) Suez Canal

13. Where was the battle of Plassey fought?

(A) Karnal

(B) Haldighati

(C) Mysore

(D) Bengal

14. Who was the first Vice-President of India?

(A) Dr. S. Radhakrishnan

(B) Dr. Rajendra Prasad

(C) C. V. Raman

(D) Jawahar Lal Nehru

15. What was the reason behind the mutiny of 1857?

(A) Cartridge containing fat

(B) Frustration in soldiers

(C) Failure of British Government

(D) Administrative research

16. For VHF interfering waves generated by automobile ignition systems or other electrical equipment located close to the ground, specify which of the following components of the interfering signal are significant at receiving locations such as used in the reception of TV signals:

1.Horizontal polarization component

2.Vertical polarization component

3. Both horizontal and vertical polarization components

4. Neither horizontal nor vertical polarization components

17. The ratio of lower frequency limit to the MUF for radio communication at short-wave is generally

1. Smaller at night than in the day time

2. Larger at night than in the day time

3. Same at night and in the day time

4. A maximum during the evening times

18. Two UHF amateur radio antenna placed at the same height and 30 statute miles apart are to be such that each is on the radio horizon line of the other. The height of the antennas should be

a. 56.25 ft b. 112.5ft c. 150ft d. 225ft

19. A transmitter with a radiated power of 1 KW produces a field strengthof 300 mv/m at a distance of 1 Km from the antenna. If the transmitter power is increased to 50 KW and the vertical directivity of the antenna is increased by a factor of 1.41, the field strength a the same distance from the antenna is approximately

a. 1.5 V/m b. 2.115 V/m c. 3.0 V/m d. 6.0 V/m

20. The directive gains of non-resonant and resonant wire antennas of equal length are approximately in the ratio of

a.. 4:1 b. 1.5:1 c. 1:1 d 3:1

21.A simple wire radiator produces a radiation field of intensity 100 mV/m at a distance point 25 Km away. The field produced (in mV/m) at a point 50 Km away in the same direction is

a. 25 b.50 c. 12.5 d. 100

22. Assuming the plane of polarization of the incoming wave and the plane of the receiving antenna to be the same, the effective height of the receiving antenna is proportional to

1. Radiation resistance

2. Power gain of the antenna

3. Physical area of the antenna

4. Wavelength, assuming other parameters being same

23. The function performed by the following circuits is

1. General combinational logic

2. Exclusive OR logic

3. Exclusive NOR logic

4. Digital comparator logic

24. Narrow trigger pulses are required to be generated from a square wave pluse train (pulse width = T). The linear wave shaping circuit would be an RC circuit (time constant = T) with the following features:

1. High pass with T << T

2. High pass with T >> T

3. Low pass with T >> T

4. Low pass with T << T

25. The circuit given below acts as

1. An OR gate

2. An AND gate

3. An inverter

4. A NOR gate

26. In the circuit shown below. if R = 0 and S = 1, the outputs Q and Q' will be

1. Q low, Q' high

2. Both low

3. Q high, Q' low

4. Both high

27. Schmitt trigger buffers are normally used as input buffers to digital logic circuit to achieve

1. Higher isolation

2. Higher fan-in-capability

3. Higher drive capability

4. Higher noise-immunity

28. For a reverse-biased PN junction. If the applied voltage is doubled the junction capacitance decreases by a factor of 2 ½. Assuming the junction acts as a parallel plate condenser, the average spacing between the plates changes by a factor of

1. 22 b.2 c. 1/21/2 d. 21/2

29. Many frequency sources use a piezo-electric resonator in the feedback circuit essentially to achieve a

1. Miniature product

2. Low cost design

3. Stable frequency

4. Large output power

30. A pulse train has the following characteristics:

Peak amplitude = 10 V, Pulse ON time 1 sec

Pulse OFF time = 4 sec

The pulse train is passed through a high pass RC filter with a large time constant. The amplitude of the positive peak at the output will be

1. .10 V b. 2V c. 4V d. 8V