



**भारत संचार निगम लिमिटेड**

(भारत सरकार का उपक्रम)

**BHARAT SANCHAR NIGAM LIMITED**

(A Govt. of India Enterprise)

**Junior Telecom Officer(T) Limited Internal Competitive Examination -2013**

**Time : 3 Hours**

**Maximum Marks : 150**

**Please read the following instructions carefully**

1. Verify that this Question paper booklet contain **18 pages** (including **blank page** for rough work) and **150 questions**.
2. There are **two parts** in the question paper **Part-A** consists of **50 questions** of 1 mark each for **50 marks** and **Part-B** Technical Paper consists of **100 questions** having 1 mark each for **100 marks**.
3. Total marks 150 for 3 Hours duration having 150 questions.
4. Blank papers, clip boards, log tables, light rules, calculators, cellular phones, pagers and electronic gadgets in any form are **NOT** allowed, however scientific non programmable calculator is allowed.
5. All answers will be marked on the OMR Answer sheet.
6. The Answer Sheet must be handed over to the invigilator, before leaving the Examination Hall.
7. Each Question has 4 choices, (A), (B), (C) & (D) for the answer and only one of them is the most appropriate answer. Darken only one Bubble which you consider to be the correct answer from among the four choices.  $\frac{1}{4}$  marks of each question will be deducted for each wrong answer.
8. **DO NOT** write anywhere on the question paper and on the Answer Sheet other than the place it requires to be marked.
9. Using a good quality Black ball point pen only, write your name, Roll No, and with a small statement with signature there under in the boxes provided on the OMR answer sheet, and darken the appropriate bubble.

## PART A

1. The members of Rajya Sabha are elected by the
  - (a) Elected members of parliament
  - (b) Elected members of state legislative
  - (c) members of state legislature
  - (d) elected members of state legislative assembly
2. Organization of India related with atomic research
  - (a) BARC (b) DST (c) CSIR (d) ICMR
3. Which one of the following varieties of coal has the highest amount of carbon in it
  - (a) Anthracite
  - (b) Bituminous
  - (c) Lignite
  - (d) Peat
4. Name the state with highest production of wheat in the country
  - (a) UP (b) M.P (c) Punjab (d) Haryana
5. Which of the following is not an export processing zone of India
  - (a) Kandla (b) Falta (c) Noida (d) Jamnagar
6. Late Ashok Kumar was given Dada Sahab phalke award in which of the following year ?
  - (a) 1985 (b) 1987 (c) 1988 (d) 1991
7. In eye donation which part of the eye is transplanted
  - (a) Retina (b) Cornea (c) Eye ball (d) Iris
8. Which gas is greenhouse gas
  - (a) Oxygen (b) Carbon-di-oxide (c) Nitric acid (d) Nitrogen oxide
9. Chilka lake is situated in
  - (a) A.P (b) Orissa (c) Assam (d) West Bengal
10. Which one of the following is a mixture
  - (a) Lime (b) Table salt
  - (c) Sugar (d) Sea Water
11. In which Indian State is the Asia's first arch dam located
  - (a) Kerala (b) Karnataka (c) Tamil Nadu (d) Andhra Pradesh

12. The only country crossed by a tropic and the equator is  
(a) Brazil (b) Bolivia (c) Canada (d) Argentina
13. On the bank of which river Budha obtained enlightenment  
(a) Ganga (b) Niranjana (c) Son (d) Kosi
14. Gita Govinda was composed in  
(a) Hindi (b) English (c) Sanskrit (d) Kannada
15. What is Shakshat  
(a) A portal which will provide one step solution for educational requirements  
(b) a portal for health services  
(c) Govt's programme to fight AIDS  
(d) None of these
16. Which of the following helps clotting of blood  
(a) Fibrin (b) Thrombin (c) Fibrinogen (d) Thromboplastin
17. Which of the following forest is called TERAI in India  
(a) Tropical forest (b) Deciduous forest  
(c) Mangroves (d) Coniferous forest
18. The only floating national park in the world is in  
(a) Manipur (b) Meghalaya  
(c) Uttaranchal (d) Assam
19. The Kingdom of Vijayanagar (1336) was founded by  
(a) Harihara & Bukka (b) Akbar  
(c) Budsha (d) Muhammad bin Tughlug
20. The Nagarjuna Dam is located on the river  
(a) Godavari (b) Kaveri  
(c) Narmada (d) Krishna
21. Mark the East flowing peninsular rivers  
(a) Krishna (b) Narmada  
(c) Sabarmati (d) Mahi
22. World Telecom day  
(a) May 17<sup>th</sup> (b) May 24<sup>th</sup>  
(c) May 1<sup>st</sup> (d) May 11<sup>th</sup>

23. The Governor of Andhra Pradesh is  
 (a) Shri E.S.L. Narasimhan (b) Shri Konijeti Rosaiah  
 (c) Shri H.R. Bharadwaj (d) Shri M.K. Narayanan

24. Find out the sequence relationship  
 Spring: Summer  
 (a) Thursday : Wednesday  
 (b) Thunder : Lighting  
 (c) June : May  
 (d) Saturday : Sunday

25. Dog is to bark as goat is to  
 (a) Howl (b) Grunt (c) bray (d) Bleat

26. Find out the odd one from given four  
 (a) Pineapple (b) orange (c) Malta (d) Banana

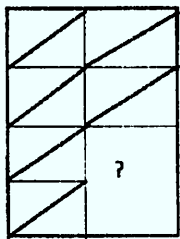
27. Find the next number  
 10, 18, 26, 34 \_\_\_\_ 50  
 (a) 48 (b) 42 (c) 63 (d) 72

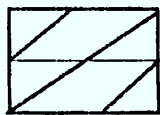
28. Find the missing number

|    |   |     |
|----|---|-----|
| 5  | 7 | 74  |
|    | 8 | 185 |
| 11 |   |     |
| 13 | ? | 205 |

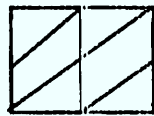
- (a) = 5 (b) = 6 (c) 7 (d)= 8

29. Complete the missing portion of the given pattern by selecting from the given alternatives a, b, c and d

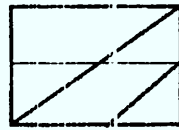




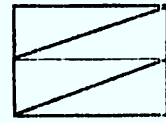
(a)



(b)



(c)



(d)

30. In the following sentence , fill with the appropriate answer.  
Copper is .....useful metal.  
(a) a (b) an (c) the (d) none of them
31. Point out the proper noun in the following sentence  
The Godavari overflows its banks every year  
(a) Godavari (b) Banks (c) year (d) none of them
32. Supply suitable adjectives  
This is a very \_\_\_\_\_matter  
(a) Serious (b) fearful (c) profound (d) all of them
33. Fill in the blank spaces from the below mentioned words:-  
I prefer the \_\_\_\_\_proposition to the former  
(a)Later (b)Latter (c) Litter (d) none of them
34. Supply appropriate comparatives or superlatives to the following  
Prevention is \_\_\_\_\_than cure  
(a) Better (b) batter (c) best (d) none of them
35. Choose the correct verb form from those in brackets  
The earth \_\_\_\_\_ round the sun  
(a)move (b) moves (c) moved (d) none of them
36. Complete the sentence with the appropriate proposition  
She brought \_\_\_\_\_ six children all on her own  
(a) round (b) up (c) on (d) back
37. The opposite of prodigal is  
(a) Wasteful (b) careful (c) miserly (d) spendthrift
38. Although Viji is younger than her sister, Viji \_\_\_\_\_ two  
(a) is the tallest of the  
(b) is the taller of the  
(c) has been the taller of the  
(d) is the most tall of the

- 39.. Candid means  
 (a) a type of candy (b) edible  
 (c) Straight forward (d) made of the wax
40. Javed is good \_\_\_\_\_ Mathematics  
 (a) in (b) for (c) at (d) to
- 41.. He admitted that he was \_\_\_\_\_  
 (a) in the wrong (b) in wrong (c) on wrong (d) on the wrong

The following passage has not been edited. There is one error in each line.  
 Mark the incorrect word from the below option

42. Its outside appear is rather dull  
 (a) outside (b) appear (c) rather (d) dull
43. People never know which it will be like  
 (a) never (b) know (c) which (d) like
- 44 Sky is covered with clouds and it starts rain  
 (a) covered (b) clouds (c) starts (d) rain

Substitute with one word from the following which is closest in meaning to the statement

45. Incapable of being reached  
 (a) Indefensible (b) insuperable  
 (c) inaccessible (d) invincible
46. Find the correctly spelt word from the below mentioned words  
 (a) Adviceable (b) Advisable (c) Advicable (d) Adviseable

Passage:

Courage is not only the basis of all virtue , it is its expression. Faith, hope, charity and all the rest don't become virtues until it takes courage to exercise them. There are two types of courage. The first, an emotional state which urges a man to risk injury or death, is physical courage. The second a more reasoning attitude which enables him to take coolly his career, happiness, his whole future or his judgment of what he thinks either right or worthwhile is moral courage.

I have known many men, who had marked physically courage but lacked moral courage. Some of them were in high places but they failed to be great in themselves because they lacked moral courage. On the other hand, I have seen men who

undoubtedly possessed moral courage but were very cautious about taking physical risks. But I have never met a man with moral courage who could not, when it was really necessary face a situation boldly.

- (47) A man of courage is  
(a) cunning (b) intelligent (c) curious (d) careful
- (48) All virtues became meaningful because  
(a) faith (b) charity (c) courage (d) hope
- (49) Physical courage is an expression of  
(a) emotions (b) deliberation (c) uncertainty (d) defiance
- (50) A man with moral courage can  
(a) defy his enemies (b) overcome all difficulties  
(c) face situation boldly (d) be very pragmatic

#### **PART - B**

1. The heart of any computer is the  
(a) CPU (b) Memory (c) I/O unit (d) Disks
2. A collection of wires that connects several devices is called  
(a) Link (b) Bus (c) Wires (d) Cables
3. The unit of a computer system that executes program, communicates with and often controls the operation of other sub systems of the computer is called  
(a) CPU (b) Control unit (c) I/O Unit (d) Peripheral unit
4. Microprocessor can be used to make  
(a) Computers (b) digital systems (c) Calculators (d) All of these
5. Which of the following is not a register  
(a) buffer (b) Stack (c) Program Counter (d) Accumulator
6. Stack consist of  
(a) Register (b) RAM (c) ROM (d) CPU

7. Java
  - (a) a really simple, reliable, portable and powerful language
  - (b) not an acronym
  - (c) Is most suitable for internet programming
  - (d) all of these
8. Object oriented programming language is
  - (a) C++
  - (b) Java
  - (c) Both a + b
  - (d) none of these
9. Java
  - a. Has no templates
  - b. does not provide vested classes
  - c. does not provide destruction
  - d. all of these
10. How many OSI layers are covered in the X-25 standard
  - (a) Five
  - (b) three
  - (c) Seven
  - (d) Six
11. Layer one of the OSI model is
  - (a) Physical layer
  - (b) link layer
  - (c) transport layer
  - (d) network layer
12. Number of bits per symbol used in Baudot code is
  - (a) 4
  - (b) 5
  - (c) 8
  - (d) 9
13. An important characteristic of LAN is
  - (a) application independent interfaces
  - (b) unlimited expansion
  - (c) Low cost access for low band width channels
  - (d) Parallel transmission
14. FDDI is a
  - (a) ring network
  - (b) star network
  - (c) mesh network
  - (d) bus based network
15. Which of the following is used for modulation and demodulation
  - (a) Modem
  - (b) Protocols
  - (c) Gateway
  - (d) Multiplexer
16. The communication mode that supports two way traffic but only in one direction at a time is
  - (a) Simplex
  - (b) duplex
  - (c) Half duplex
  - (d) Multiplex



- 17 Which of the following devices is used to connect two systems, especially if the systems use different protocols  
(a) Hub (b) Bridge (c) Gateway (d) Repeater
- 18 Which of the following medium access control technique is used for bus/tree  
(a) token ring (b) token bus (c) CSMA (d) MAC
- 19 Which of the following network access standard is used for connecting stations to a packet switched network  
(a) X.3 (b) X.21 (c) X.25 (d) X.75
- 20 Which of the following sorting procedure is the slowest  
(a) quick sort (b) Heap sort (c) shell sort (d) Bubble sort
- 21 The variable which can be accessed by all modules in a program are called  
(a) local variables  
(b) internal variables  
(c) external variables  
(d) global variables
- 22 The no. of nodes in a complete binary tree of level 5 is  
(a) 15 (b) 25 (c) 63 (d) 71
- 23 Stack is useful for implementing  
(a) radix (b) breadth first search (c) recursion (d) none of the these
- 24 The value for which you are searching is called  
(a) binary value (b) key (c) search argument (d) serial value
- 25 The sorting method which sorts a given set of items that is already in order or in reverse order with equal speed is  
(a) Heap sort (b) quick sort (c) insertion sort (d) selection sort
- 26 A search procedure which associates an address with a key value and provides a mechanism for dealing with two or more values assigned to the same address is called  
(a) linear search (b) binary search (c) hash coded search (d) radix search
- 27 E-R modeling techniques is a  
(a) top-down approach  
(b) bottom-up approach  
(c) left-right approach  
(d) non of these

- 28 The TTA's salary should not be greater than Rs.2000/- This is
- (a) Integrity constraint
  - (b) referential constraint
  - (c) over-defined constraint
  - (d) feasible constraint
- 29 The relational model uses some unfamiliar terminology. A tuple is equivalent to
- (a) record
  - (b) field
  - (c) file
  - (d) data base
- 30 A form defines
- (a) where data is placed on the screen
  - (b) the width of each field
  - (c) both (a) and (b)
  - (d) non of these
- 31 Data security threats include
- (a) privacy invasion
  - (b) hardware failure
  - (c) fraudulent manipulation of data
  - (d) all of these
- 32 The most common approach to authenticating a user identity is
- (a) user passwords
  - (b) user log in
  - (c) hardware devices
  - (d) none of these
- 33 Audit log can be used to
- (a) determine how & when the problem occurred
  - (b) what amount of damage was done
  - (c) when security has been violated
  - (d) all of these
- 34 Wheatstone bridge method of resistance measurement is ideally suitable for the measurement of resistance values in the range of
- (a) 0.001 ohm to 1 ohm
  - (b) 0.1 ohm to 100 ohm
  - (c) 100 ohm to 10 k-ohm
  - (d) 100 k-ohm to 10 m-ohm

- 35 When measuring insulation resistance of cables using d.c source, the galvanometer used should be initial short circuited because
- (a) cables have a low value of initial resistance
  - (b) cables have a high value of capacitance which draws a high value of charging current
  - (c) cables have a low value of capacitance which draws a high value of charging current
  - (d) none of these
- 36 What will happen if a voltmeter is connected like an ammeter in series to the load
- (a) the meter will burn out
  - (b) the measurement will be too high
  - (c) an inadmissibly high current will flow
  - (d) there will be almost no current in the circuit
- 37 Which of the following meter is most suitable for measuring radio frequency currents
- (a) Moving coil meter
  - (b) Moving iron meter
  - (c) Thermo couple meter
  - (d) VTVM
- 38 At high frequency the accuracy of all the measuring meters
- (a) increases
  - (b) decreases
  - (c) remains the same
  - (d) depends upon the type of meter
- 39 DC voltage of the order of few mV can be measured accurately using a/an
- (a) moving coil voltmeter
  - (b) null-balancing potentiometer
  - (c) moving iron voltmeter
  - (d) electrostatic voltmeter
- 40 The inductance of a high Q inductor can be measured using a
- (a) Schering bridge
  - (b) Wein bridge
  - (c) Maxwell bridge
  - (d) Hay bridge
- 41 An integrating digital voltmeter measures
- (a) true average value
  - (b) rms value
  - (c) peak value
  - (d) peak to peak value

- 42 Modern electronic multimeters measure resistance by  
 (a) using a bridge circuit  
 (a) using an electronic bridge compensator for nulling  
 (c) forcing a constant current and measuring the Voltage across the unknown resistance  
 (d) non of these
- 43 Small dc motors upto 5 HP usually have  
 (a) 2 poles (b) 4 poles  
 (c) 6 poles (d) 8 poles
- 44 In a dc generator rapid brush wear may be due to  
 (a) rough commutate surface (b) Sparking  
 (c) Imperfect contact with commuter (d) any of these
- 45 A transformer transforms  
 (a) frequency (b) voltage  
 (c) current (d) both voltage & current
- 46 The frequency of voltage generated by an alternator having 8 poles and rotating at 750 rpm is  
 (a) 25 Hz (b) 50 Hz  
 (c) 100 Hz (d) 200 Hz
- 47 Synchronous motor can operate at  
 (a) lagging power factor only (b) leading power factor only  
 (c) unity power factor only (d) any of the above three
- 48 Which of the following motor is most suitable for best speed control  
 (a) dc series motor (b) dc shunt motor  
 (c) Induction motor (d) synchronous motor
- 49 Single phase motors general get overheated due to  
 (a) Overloading (b) Short Windings  
 (c) bearing troubles (d) any of the above
- 50 Circuit breakers are essentially  
 (a) current carrying contacts called electrodes (b) are extinguishers  
 (c) circuits to break the system (d) transformers to isolate sub systems
- 51  $\overline{A} . \overline{B} . \overline{C} = D$  represents a  
 (a) NOR gate (b) NAND gate  
 (c) Ex. OR gate (d) AND gate

- 52 NAND gate is called is universal gate because  
 (a) it is most commonly used  
 (b) all logical functions can be realized by use of NAND gates alones  
 (c) all minimization techniques can be applied to it  
 (d) it can realize AND and NOT functions
- 53 Simplified form of Boolean expression  
 $(A + \bar{B} + \bar{A}B)C$   
 (a) 1 (b) 0 (c) c (d)  $\bar{C}$
- 54 How many truth table can be made from one function table  
 (a) one (b) two (c) three (d) any number
- 55 The no. of comparators in a parallel conversion type 8 bit A to D converter is  
 (a) 8 (b) 16 (c) 255 (d) 256
- 56 The decimal equivalent of the hexadecimal number E5 is  
 (a) 279 (b) 229 (c) 427 (d) 3000
- 57 Which of the following is an example of volatile memory  
 (a) ROM (b) RAM (c) PROM (d) Hard-disk
- 58 One Megabyte is equivalent to  
 (a)  $2^{10}$  bytes (b)  $2^{20}$  bytes (c)  $2^{30}$  bytes (d) none of these
- 59 Which of the following is associated with optics  
 (a) Winchester disk (b) RSM (c) CD ROM (d) none of these
- 60 PROM's are used to spare  
 (a) bulk information (b) sequential information  
 (c) Information to be accessed rarely (d) relatively permanent information
- 61 Sampling theorem finds application in  
 (a) amp modulation (b) freq. modulation  
 (c) PCM (d) Phase modulation
- 62 Quantization noise occurs in  
 (a) PCM (b) TDM  
 (c) FDM (d) Pulse width modulation
- 63 Which system is free from noise  
 (a) FM (b) AM (c) both FM & AM (d) none of these

- 64 The highest modulation frequency typically used in FM broadcast is  
 (a) 5 KHz (b) 10 KHz (c) 15 KHz (d) 25 KHz
- 65 The carrier voltage of unmodulated carrier power 1KW on being amplitude modulated by an audio sinusoidal voltage to a depth of 100% has total modulated carrier power of  
 (a) 1.25 KW (b) 1.5 KW (c) 2 KW (d) 4 KW
66. Satellite earth station has  
 (a) only transmitting equipment (b) only receiving equipment  
 (c) both receiving & transmitting (d) none of the above
- 67 A geostationary satellite completes one orbit in  
 (a) 1 hour (b) 6 hours  
 (c) 24 hours (d) 7 days
- 68 In Satellite Communication DAMA means  
 (a) Digitally Assigned Multiple access (b) Darlington Analog master Antenna  
 (c) Demand Assigned Multiple Access (d) Decibel attenuated Master antenna
- 69 A graphic representation of an information system is called  
 (a) flow chart (b) data flow diagram  
 (c) Pictogram (d) none of these
- 70 A word processor designed for programmers is called  
 (a) an editor (b) a formatter  
 (c) a debugger (d) none of these
- 71 Structured programme involves  
 (a) functional modularization (b) decentralization of program activity  
 (c) location of errors (d) centralized processing
- 72 What type of software is useful in financial Planning and Calculation  
 (a) Graphics (b) Communication (c) database (d) spreadsheet
- 73 Virtual pointer is  
 (a) data number (b) Pointer to a base class  
 (c) Pointer to a derived class (d) None of these

- 74 Procedural programming language is  
 (a) COBOL (b) BASIC (c) C++ (d) Pascal
- 75 Register variable stored in  
 (a) CPU (b) RAM (c) ROM (d) Peripheral memory
- 76 A base class may also be called a  
 (a) Child class (b) Sub class (c) derived class (d) Parent class
- 77 MOS transistor  
 (a) has only one Pn junction  
 (b) conducts when sufficient voltage is applied to the gate electrode  
 (c) has only two electrodes  
 (d) has gate electrode in direct contact with the silicon
- 78 Which of the following transistor is affected by static electricity  
 (a) npn transistor (b) JEFT (c) UJT (d) MOSFET
- 79 SCR is a  
 (a) 2 layer device (b) 3 layer device  
 (c) 4 layer device with one gate (d) 4 layer device with two gates
- 80 Excessive hum in a power supply is generally due to  
 (a) Open filter choke (b) Capacitor  
 (c) defective rectifier (d) any of these
- 81 Which of the following transistor configuration gives useful current gain  
 (a) CE alone (b) CB alone  
 (c) CC alone (d) both CE and CC
- 82 In a MOSFET, dynamic drain resistance  $r_d$  is of the order of  
 (a) 10 K ohm (b) 1 M ohm  
 (c) 10 M ohm (d)  $10^4$  M ohm
- 83 Which of the following amplifiers produces the least distortion  
 (a) Class A (b) Class AB  
 (c) Class B (d) Class C
- 84 Cross over distortion takes place in  
 (a) turned amplifier (b) power amplifiers  
 (c) Small signal amplifiers (d) Video amplifiers

- 85 An Oscillator is basically an amplifier with  
 (a) zero gain (b) very large gain  
 (c) infinite gain (d) very low gain
- 86 Microprocessor can be  
 (a) non programmable (b) macro programmable  
 (c) micro programmable (d) all these above
- 87 An OP code  
 (a) translates a mnemonic (b) instructs the CPU  
 (c) Stores data (d) all the above
- 88 Which of the following cycle is required to fetch and execute information  
 (a) Clock cycle (b) Tricycle  
 (c) introduction cycle (d) memory cycle
- 89 Stack memory is used  
 (a) to provide additional memory to the base memory  
 (b) to save return addresses of a sub routine  
 (c) to save the status of the microprocessor  
 (d) none of the above
- 90 ACK indicates reception of  
 (a) Correct data (b) incorrect data  
 (c) Insufficient data (d) Sufficient data
- 91 Every processor must necessarily have  
 (a) data bus (b) data bus and address bus  
 (c) control bus (d) data bus, a control bus and an address bus
- 92 An instruction used to set the carry flag in a computer can be classified as  
 (a) data transfer (b) arithmetic (c) logical (d) Program control
- 93 Which of the following actions detect locations and remove mistakes from a programme routine  
 (a) Erase (b) debug (c) Diagnose (d) emulate
- 94 Short-term fading in microwave communication links can be overcome by  
 (a) increasing the transmitted power (b) changing the antenna  
 (c) changing the modulation scheme (d) diversity reception and transmission



- 95 TWT is basically a/an  
 (a) Oscillator (b) tuned amplifier  
 (c) Wide band amplifier (d) audio amplifier
- 96 Which of the following diodes, produces the highest pulsed power  
 (a) gunn diode (b) Schottky barrier diode  
 (c) varactor diode (d) RIMAPATT
- 97 Wave guide seals are pressurized to  
 (a) reduce loss (b) reduce noise  
 (c) detect faults (d) prevent ingress of moisture
- 98 Which of the following device is not used for pulse operation  
 (a) CFT (b) BWO (c) TWT (d) Multicavity klystron
- 99 Coaxial lines are coupled to the waveguides by means of  
 (a) coupling loops (b) Probes  
 (c) either probes or coupling loops (d) none of these
- 100 The term LASER is an abbreviation for  
 (a) Low amplification signal emitting radio waves  
 (b) last aligned sound emitting radio waves  
 (c) light amplification by stimulated emission of radiation  
 (d) none of these

**B5NL - LICE FOR PROMOTION TO GRADE OF JTO(T) HELD ON 02-06-2013**

**ANSWER KEY FOR PART A & B**

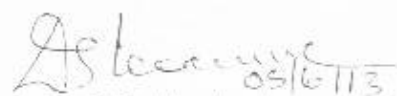
| PART A                          |        |        |                    |        |         |  |  |  |  |
|---------------------------------|--------|--------|--------------------|--------|---------|--|--|--|--|
| 1 (d)                           | 26 (d) |        |                    |        |         |  |  |  |  |
| 2 (a)                           | 27 (b) |        |                    |        |         |  |  |  |  |
| 3 (a)                           | 28 (b) |        |                    |        |         |  |  |  |  |
| 4 (a)                           | 29 (d) |        |                    |        |         |  |  |  |  |
| 5 (b)                           | 30 (a) |        |                    |        |         |  |  |  |  |
| 6 (c)                           | 31 (a) |        |                    |        |         |  |  |  |  |
| 7 (b)                           | 32 (d) |        |                    |        |         |  |  |  |  |
| 8 (b)                           | 33 (b) |        |                    |        |         |  |  |  |  |
| 9 (b)                           | 34 (a) |        |                    |        |         |  |  |  |  |
| 10 (a)                          | 35 (b) |        |                    |        |         |  |  |  |  |
| 11 (a)                          | 36 (b) |        |                    |        |         |  |  |  |  |
| 12 (a)                          | 37 (b) |        |                    |        |         |  |  |  |  |
| 13 (b)                          | 38 (b) |        |                    |        |         |  |  |  |  |
| 14 (c)                          | 39 (c) |        |                    |        |         |  |  |  |  |
| 15 (a)                          | 40 (c) |        |                    |        |         |  |  |  |  |
| 16 (d)                          | 41 (a) |        |                    |        |         |  |  |  |  |
| 17 (c)                          | 42 (b) |        |                    |        |         |  |  |  |  |
| 18 (a)                          | 43 (c) |        |                    |        |         |  |  |  |  |
| 19 (a)                          | 44 (d) |        |                    |        |         |  |  |  |  |
| 20 (d)                          | 45 (c) |        |                    |        |         |  |  |  |  |
| 21 (a)                          | 46 (b) |        |                    |        |         |  |  |  |  |
| 22 (a)                          | 47 (d) |        |                    |        |         |  |  |  |  |
| 23 (a)                          | 48 (c) |        |                    |        |         |  |  |  |  |
| 24 (d)                          | 49 (a) |        |                    |        |         |  |  |  |  |
| 25 (d)                          | 50 (c) |        |                    |        |         |  |  |  |  |
| PART B                          |        |        |                    |        |         |  |  |  |  |
| 1 (a)                           | 19 (a) | 37 (c) | 55 (c)             | 73 (a) | 91 (d)  |  |  |  |  |
| 2 (b)                           | 20 (d) | 38 (b) | 56 (b)             | 74 (a) | 92 (b)  |  |  |  |  |
| 3 (a)                           | 21 (d) | 39 (b) | 57 (b)             | 75 (a) | 93 (b)  |  |  |  |  |
| 4 (d)                           | 22 (c) | 40 (b) | 58 (b)             | 76 (d) | 94 (d)  |  |  |  |  |
| 5 (a)                           | 23 (c) | 41 (a) | 59 (b)             | 77 (c) | 95 (c)  |  |  |  |  |
| 6 (b)                           | 24 (d) | 42 (c) | 60 (d)             | 78 (d) | 96 (d)  |  |  |  |  |
| 7 (d)                           | 25 (b) | 43 (a) | 61 (c)             | 79 (d) | 97 (b)  |  |  |  |  |
| 8 (c)                           | 26 (c) | 44 (d) | 62 (a)             | 80 (b) | 98 (b)  |  |  |  |  |
| 9 (d)                           | 27 (a) | 45 (d) | 63 (a)             | 81 (d) | 99 (c)  |  |  |  |  |
| 10 (b)                          | 28 (a) | 46 (b) | 64 (c)             | 82 (d) | 100 (c) |  |  |  |  |
| 11 (a)                          | 29 (a) | 47 (d) | 65 (b)             | 83 (b) |         |  |  |  |  |
| 12 (b)                          | 30 (c) | 48 (d) | 66 (c)             | 84 (b) |         |  |  |  |  |
| 13 (a)                          | 31 (a) | 49 (d) | 67 (c)             | 85 (c) |         |  |  |  |  |
| 14 (a)                          | 32 (a) | 50 (a) | 68 (c)             | 86 (d) |         |  |  |  |  |
| 15 (a)                          | 33 (d) | 51 (a) | 69 (b)             | 87 (b) |         |  |  |  |  |
| 16 (c)                          | 34 (b) | 52 (b) | 70 (a)             | 88 (c) |         |  |  |  |  |
| 17 (b)                          | 35 (b) | 53 (d) | 71 (a)             | 89 (b) |         |  |  |  |  |
| 18 (a)                          | 36 (d) | 54 (b) | 72 (d)             | 90 (a) |         |  |  |  |  |
| for question 65 pt=pc(1+ ma2/2= |        |        | 1000*1+1/2=1.5 kw) |        |         |  |  |  |  |

No TA/RE/3-5/2012/Conf/36,

Dtd 05.06.2013

Provisional Answer Key of Paper of LICE for promotion to the Grade of Jr. Telecom Officers (under 35% & 15% Quota) held on 02.06.2013 in A.P Circle.

Any Discrepancy in the answer key may be brought to the notice of undersigned, by 15.06.2013, preferably through their Unions/Associations.



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