

Exam. Code : 10

Subject Code: 10-SK-4

Number of Pages in Booklet: 16

Number of Questions in Booklet: 100

Time: 1 Hour 15 Minutes

Maximum Marks: 100

### INSTRUCTIONS

1. Answer **all** questions.
2. All questions carry equal marks.
3. Only one answer is to be given for each question.
4. If more than one answers are marked, it would be treated as wrong answer.
5. Each question has four alternative responses marked serially as (A), (B), (C), (D). You have to darken only one circle or bubble indicating the correct answer on the Answer Sheet using BLUE BALL POINT PEN.
6. The candidate should ensure that Series Code of the Question Paper Booklet and Answer Sheet must be same. In case they are different, a candidate must obtain another Question Paper of the same series. Candidate himself shall be responsible for ensuring this.
7. Mobile Phone or any other electronic gadget in the examination hall is strictly prohibited. A candidate found with any of such objectionable material with him/her will be strictly dealt as per rules.
8. End of Examination, Candidates carry out this booklet, with them.

- A curtain wall carries**
- (A) Wind load (8) Self weight.  
(C) Roof load (0) No load
- 2 **The unit of measurement for concrete work in R.C.C. is**
- (A) Sq m  
(8) 10 sq m  
(C) 10 cu m  
(D) Cu m
- 3 **The unit of measurement for electric wiring or electrification light, fan, plug points is**
- (A) point (8) Metre  
(C) number (0) No unit
- 4 **The temporary adjustment of a prismatic compass is**
- (A) centering  
(8) Adjustment of levels.  
(C) Adjustment of needle  
(D) Adjustment of vanes
- 5 **Closed contours with higher value inside represents a**
- (A) depression (8) Hill  
(C) Plain surface (D) None
- 6 **The principle of optics used in the construction of an optical square is**
- (A) Reflection  
(8) Double reflection  
(C) Refraction  
(0) Double refraction
- 7 **The bricks used for lining of furnaces are**
- (A) Under burnt bricks (8) Over burnt bricks  
(C) Refractory bricks (D) Bull nose bricks

- 8 The number of bricks required per cubic meter of brick masonry is  
(A) 400 (B) 450  
(C) 500 (D) 550
- 9 A portion of the brick cut **across the width is known as**  
(A) bed (B) bat  
(C) base (D) Half brick
- 10 **Galvanizing means covering** iron with a thin coat of  
(A) Tin (B) Glaze  
(C) Zinc (D) Coal tar
- 11 Plaster of Paris is obtained by calcining  
(A) Bauxite (B) Gypsum  
(C) Kankar (D) Lime stone
- 12 The unit of strain is  
(A) No unit (B) Millimeter  
(C)  $\text{Kg/cm}^2$  (D)  $\text{Kg/cm}^3$
- 13 While preparing mortar, the binding material generally used is cement and  
(A) Lime (B) Cinder  
(C) Surkhi (D) Fly ash
- 14 The useful part of live able area of a building is also known as  
(A) Circulation area (B) Horizontal circulation area  
(C) Carpet area (D) Plinth area
- 15 Generally the **unit of measurement for partition** wall is  
(A) CU m (B) Sq m  
(C) Running metre (D) Numbers
- 16 **While mixing cement mortar by volume, the volume of a cement bag is specified as**  
(A) 50 litres (B) 35 litres  
(C) 0.050 cu m (D) 0.35 cu m
- 17 The process of evaluating cost of construction of a project is called  
(A) estimate (B) Rough estimate  
(C) Actual cost (D) Workable cost

- 18 Fire bricks are used  
 (A) To reflect heat  
**(B) To increase the heat flow**  
 (C) To decrease the heat flow  
 (D) None of the above
- 19 A good quality of cement should have higher percentage of ,  
 (A) Silica (8) Free lime  
 (C) di-calcium silicate (D) Tri-calcium silicate
- 20 Asbestos is a good insulator of  
 (A) Heat (8) Sound  
 (C) Electricity (O) All of the above
- 21 Local attraction in a compass surveying may be due to  
 (A) Faulty adjustment in the compass  
 (B) Due to presence of magnetic materials  
 (C) Loss of magnetism in the needle  
 (D) Friction of the needle the point
- 22 The red color of the brick is due to  
 (A) Iron oxide (8) Silica  
 (C) magneSi a (D) Alumina
- 23 A thinner used in distemper is  
 (A) Turpentine oil (8) Spirit  
 (C) naphtha (D) Water
- 24 The full form of P. C. C.  
 (A) Polymer cement concrete  
 (8) Plain cement concrete  
 (C) Percentage of cement concrete  
 (D) Porous cement concrete
- 25 The maximum percentage of water absorption of I class bricks in 24 hours should be limited to  
 (A) 10% (8) 15%  
 (C) 20% (D) 24%

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- 26 The colour code of a 1 K $\Omega$  resistor is  
(A) Black, Brown, Red (B) Red, Brown, Brown  
(C) Brown, Black, Red (D) Black, Black, Red
- 27 The size of the earth wire is determined on the basis of  
(A) Voltage of the service line  
(B) Current carrying capacity of the service line  
(C) Atmospheric condition  
(D) None of the above
- 28 Megger is used to measure resistance in range of  
(A) m $\Omega$  (B)  $\Omega$   
(C) k $\Omega$  (D) M $\Omega$
- 29 Which types of insulators are used in 132 KV transmission line?  
(A) pin (B) disc  
(C) shackle (D) Pin and shackle
- 30 Energy meter for connection has ----- terminals.  
(A) 2 (B) 4  
(C) 6 (D) 8
- 31 Which of the following is piezoelectric material?  
(A) Quartz (B) Silica, sand  
(C) corundum (D) polystyrene
- 32 Size of a high speed motor as compared to low speed motor for the same H.P. will be  
(A) Bigger (B) smaller  
(C) same (D) Any of the above
- 33 The power factor of a practical inductor is  
(A) unity (B) Leading  
(C) zero (D) Lagging
- 34 Insulation used in commutator is  
(A) wood (B) PVC  
(C) mica (D) glass
- 35 Stringing chart is useful  
(A) for finding the sag in conductor  
(B) in the design of tower  
(C) in the design of insulator string  
(D) finding the distance between towers

- 36 For arc heating electrodes used are made of  
(A) copper (B) graphite  
(C) tungsten (D) aluminium
- 37 The advantage of neutral earthing is  
(A) safety to personal  
(B) reduction of earth fault current  
(C) elimination of arcing ground  
(D) None of the above
- 38 Which of the following tube light consumes least amount of power?  
(A) T12 tube light with magnetic ballast  
(B) T8 tube light  
(C) T5 tube light  
(D) T12 tube light with electronic ballast
- 39 For rural electrification in a country like India with complex network the circuit breaker preferred is one.  
(A) Air break (B) Vacuum  
(C) Oil (D) Air blast
- 40 The semiconductor device used for speed control of single phase induction motor in everyday domestic use is  
(A) SCR (B) Power transistor  
(C) Triac (D) Power MOSFET
- 41 Preferred material for permanent magnet is  
(A) alnico (B) stainless steel  
(C) tungsten steel (D) soft iron
- 42 Torque/weight ratio of an instrument indicates  
(A) selectivity (B) accuracy  
(C) fidelity (D) sensitivity
- 43 Electronics component are joined by  
(A) spot welding (B) soldering  
(C) brazing (D) none of the above

- 44 The **primary function of a fuse** is to
- (A) **open the circuit**
  - (B) **protect the appliance**
  - (C) **protect the line**
  - (D) **prevent excessive current flow through the circuit**
- 45 In electric machine varnish is **mainly used in**
- (A) **impregnation**
  - (B) **coating**
  - (C) **adhesion**
  - (D) **All of these**
- 46 A three point starter is considered suitable for d.c. **motors.**
- (A) **shunt**
  - (B) **series**
  - (C) **compound**
  - (D) **Shunt as well as compound**
- 47 The **function of oil in a transformer is**
- (A) **To provide insulation and cooling**
  - (B) **To provide protection against lightning**
  - (C) **To provide protection against short circuit**
  - (D) **To provide lubrication**
- 48 A 3-phase 4 wire system is commonly used for
- (A) **Primary distribution**
  - (B) **Primary transmission**
  - (C) **Secondary distribution**
  - (D) **Secondary transmission**
- 49 ACSR conductors have
- (A) **All conductors made of aluminium**
  - (B) **Outer conductors made of aluminium**
  - (C) **Inner conductors made of aluminium**
  - (D) **No conductors made of aluminium**
- 50 A zero watt lamp consumes **power of**
- (A) **Zero watt**
  - (B) **5-10 watt**
  - (C) **About 15 watt**
  - (D) **About 25 watt**

- 51 The loss of strength in 'compression with simultaneous gain in strength in tension due to overloading is known as
- (A) Creep (B) Hysteresis  
(C) Visco elasticity (D) **Boeschinger** effect
- 52 Which ratio is computed with the help of following? Cost of goods sold / Inventory
- (A) Receivable turnover (B) Times interest earned  
(C) Inventory turnover (D) None of these
- 53 Manganese in steel increases its
- (A) Hardness (B) Tensile strength  
(C) Ductility (D) Malleability
- 54 The unique property of cast iron is its high
- (A) Malleability (B) Hardness  
(C) Ductility (D) Damping characteristics
- 55 Cyaniding is the process of
- (A) Adding carbon and nitrogen by heat treatment of steel to increase its surface hardness  
(B) Dipping steel in cyanide bath  
(C) Dipping steel in cyanide bath  
(D) Obtaining cyanide salts
- 56 Most inventory models attempt to minimize
- (A) The likelihood of a stockout  
(B) The number of items ordered  
(C) Total inventory based costs  
(D) The number of orders placed
- 57 Cycle counting
- (A) is a process by which inventory records are verified once a year  
(B) provides a measure of inventory turnover  
(C) assumes that all inventory records must be verified with the same frequency 2  
(D) provides a measure of inventory accuracy



- S8 Most inventory models attempt to minimize
- (A) Total inventory based costs
  - (B) the likelihood of a stockout
  - (C) The number of orders placed
  - (D) the number of items ordered
- S9 The purpose of safety stock is to
- (A) Replace failed units with good ones
  - (B) Eliminate the possibility of a stockout
  - (C) Eliminate the likelihood of a stockout due to erroneous inventory tally
  - (D) Control the likelihood of a stockout due to the variability of demand during lead time
- 60 - The purpose of safety stock is to
- (A) Control the likelihood of a stockout due to the variability of demand during lead time
  - (B) replace failed units with good ones
  - (C) Eliminate the likelihood of a stockout due to erroneous inventory tally
  - (D) Eliminate the possibility of a stockout
- 61 Alloy used for making electrical resistances and heating elements is
- (A) Invar
  - (B) Elinvar
  - (C) Magnin
  - (D) Nichrome
- 62 Which of the following would not generally be a motive for a firm to hold inventories?
- (A) To decouple or separate parts of the production process
  - (B) To take advantage of quantity discounts
  - (C) To minimize holding costs
  - (D) To provide a stock of goods that will provide a selection for customers

- 63 Which one is the non-metal from following?  
(A) Carbon (B) Iron  
(C) Lead (D) Zinc
- 64 Which one is ferrous metal from listed below?  
(A) Zinc (B) Iron  
(e) Lead (D) Brass
- 65 Metallic compounds are \_\_\_\_\_ in nature.  
(A) Liquid (B) Crystalline  
(C) Non-Crystalline (D) None of above
- 66 Which is the property of steel due to which it can withstand the blow of hammer?  
(A) Hardness (B) Malleability  
(C) Toughness (D) Plasticity
- 67 Ductility of material can be defined as  
(A) Ability to undergo large permanent deformation in compression  
(B) Ability to undergo large permanent deformation in tension  
(e) Ability to recover its original form  
(D) All of above
- 68 Corrosion resistance of stainless steel is due to  
(A) Carbon (B) Vanadium  
(C) Chromium (D) Sulphur
- 69 Galvanizing is done with a thin layer of  
(A) Zinc (B) Copper  
(e) Cadmium (D) Lead

- 70 Annealing is done
- (A) To harden the **surface**
  - (B) For **relieving stress**
  - (C) For **improving microstructure** for good' **surface** finish
  - (D) **For surface smoothness**
- 71 Metallic compounds are generally
- (A) Hard and brittle
  - (B) Tough and ductile
  - (C) Soft and plastically deformable
  - (D) None of the above
- 72 Reduction of in-transit inventory can be encouraged through use of
- (A) Supplier location near plants
  - (B) Low-cost, global suppliers
  - (C) Low carrying costs
  - (D) Use of trains, not trucks
- 73 Which of the following is a function of inventory?
- (A) To decouple or separate parts of the production process
  - (B) To provide a stock of goods that will provide a selection for **customers**
  - (C) To take advantage of quantity discounts
  - (D) All of above
- 74 Which of the following material has a **property** of shape memory?
- (A) Nitinol
  - (B) Stainless Steel
  - (C) Bell metal
  - (D) Gun metal
- 75 Pipes for bicycle frame are made of
- (A) Cold rolled **steel**
  - (B) **Forged steel**
  - (C) Cast steel
  - (D) Hot rolled steel

- 76 The **administrative** capital of West Bengal is \_\_\_\_\_
- (A) Howrah (8) Kolkata  
(C) Darjeeling (D) Jalpaiguri
- 77 **Kilowatt** is a unit to measure
- (A) Work (B) Power  
(C) Electricity (D) Current
- 78 **National sports day** is celebrated on **which** of the following days?
- (A) August 20 (B) August 29  
(C) August 19 (D) August 09
- 79 **Padma Shri Awards** are given by
- (A) Government of Gujarat  
(8) Government of Maharashtra  
(C) Ministry of Finance  
(D) None of these
- 80 **Tricolour** was adopted as the National Flag in the
- (A) Lahore Congress  
(B) Belgaum Congress  
(C) Allahabad Congress  
(D) Haripura Congress
- 81 **When was the Dandi March** undertaken ?
- (A) December 31, 1929 (8) March 12, 1930  
(C) April 5, 1930 (D) May 5, 1930

82 When the Earth is at the maximum distance-from the Sun, it is **called**

- (A) Aphelion (B) Perihelion  
(C) Equinox (D) Sidereal

83 Which is the universal DONOR Blood Group ?

- (A) A (B) B  
(C) AB (D) 0

84 Which day is celebrated as Computer Literacy Day ?

- (A) **December** (B) **December 2**  
(C) **December 10** (D) **December 22**

85 The **first woman Prime Minister of India** was \_\_\_\_\_

- (A) Mrs. Vijyalaxmi Pandit  
(B) Madam Cama  
(C) Mrs. Indira Gandhi  
(D) **None of these**

86 Where was Mohandas Gandhi born ?

- (A) Ahmedabad (B) Rajkot  
(C) Porbandar (D) Junagadh

87 Which state is to the east of Gujarat ?

- (A) **Kerala** (B) Madhya Pradesh  
(C) Punjab (D) **Himachal Pradesh**

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88 Look at this series: 31, 29, 24, 22, 17, "",

What number should come next ?

- (A) 15 (B) 14  
(C) 13 (D) 12

89 32 31 32 29 32 27 32

- (A) 25 32 (B) 31 32  
(C) 29 32 (D) 25 30

90 Look at this series: 72, 76, 73, 77, 74, \_ , 75,

What number should fill the blank ?

- (A) 70 (B) 71  
(C) 75 (D) 78

91 5, 2, -7, 9, 16 25, ?

- (A) 41 (B) 45  
(C) 48 (D) 52

92 Choose the missing terms out of the given alternatives.

C, Z, F, X, I, V, L, T, O, ?,

- (A) O, P (B) P, Q  
(C) R, R (D) S, R

93 Choose the missing term(s) from below options: AZ, CX, FU, ?

- (A) IR (B) IV  
(C) JQ (D) KP

94 Choose the missing term from below options: OHL, PTX, BFj, ?

- (A) CGJK (B) KOS  
(C) NRV (D) RVZ

- 95 ac \_ cab \_ baca \_ aba \_ acac  
(A) aacb (B) aebe  
(C) babb (D) bcbb
- 96 In Arun's opinion, his weight is greater than 65 kg but less than 72 kg. His brother does not agree with Arun and he thinks that Arun's weight is greater than 60 kg but less than 70 kg. His mother's view is that his weight cannot be greater than 68 kg. If all are correct in their estimation, what is the average of different probable weights of Arun ?  
(A) 67 kg. (B) 68 kg.  
(C) 69 kg. (D) Data inadequate
- 97 Find out the wrong number in the given sequence of numbers :  
125, 127, 130, 135, 142, 153, 165  
(A) 130 (B) 142  
(C) 153 (D) 165
- 98 The theory of relativity was given by \_\_\_\_\_  
(A) Thomas Edison  
(B) Einstein  
(C) Newton  
(D) None of these
- 99 The First successful Indigenous satellite Launch vehicle  
(A) PSLV-3 (B) SLV-3  
(C) RNS-4 (D) None of these
- 100 River Tapti (Tapi) originating from Madhya Pradesh, fall into  
(A) Ganga Sagar (B) Gulf of Khambat  
(C) Bay of Bengal (D) None of these