

Booklet Serial No. :

2039

TEST BOOKLET SERIES

**TEST BOOKLET
PRPL (ITI) 2015**

C

Time Allowed : 2 Hours]

[Maximum Marks : 100

All questions carry equal marks.

INSTRUCTIONS

1. Immediately after the commencement of the examination, you should check that test booklet does not have any unprinted or torn or missing pages or items, etc. If so, get it replaced by a complete test booklet.
2. **Encode clearly the test booklet series A, B, C or D as the case may be in the appropriate place in the answer sheet.**
3. Write your Roll Number only in the box provided alongside.
Do not write anything else on the Test Booklet.
4. This Test Booklet contains **100** items (questions). Each item comprises four responses (answers). Choose only one response for each item which you consider the best.
5. After the candidate has read each item in the Test Booklet and decided which of the given responses is correct or the best, he has to mark the circle containing the letter of the selected response by blackening it completely with Black or Blue ball pen. In the following example, response "C" is so marked :

(A) (B) ● (D)
6. Do the encoding carefully as given in the illustrations. While encoding your particulars or marking the answers on answer sheet, you should blacken the circle corresponding to the choice in full and no part of the circle should be left unfilled.
7. You have to mark all your responses **ONLY** on the ANSWER SHEET separately given according to 'INSTRUCTIONS FOR CANDIDATES' already supplied to you. *Responses marked on the Test Booklet or in any paper other than the answer sheet shall not be examined.*
8. All items carry equal marks. Attempt all items. Your total marks will depend only on the number of correct responses marked by you in the Answer Sheet. There will be no negative marking.
9. Before you proceed to mark responses in the Answer Sheet fill in the particulars in the front portion of the Answer Sheet as per the instructions sent to you.
10. After you have completed the test, hand over the Answer Sheet only, to the Invigilator.

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1. A hypermarket storeroom wants to store an SKU consisting of 5,000 cartoons on pallets each containing a maximum of 30 cartoons. They are to stored three high in the storeroom. How many pallet positions are required ?
(A) 56 (B) 167
(C) 200 (D) 50
2. Which term is applied to the 'discount' offered by a supplier to encourage a consumer to purchase more items ?
(A) Trade discount (B) Credit discount
(C) Cash discount (D) Debit discount
3. Which inventory records show continuously the quantity on hand for each item in the inventory ?
(A) Periodic inventory records (B) Perpetual inventory records
(C) Stock number records (D) Reorder point records
4. Document showing part lists or building lists generated at the design stage is :
(A) MRP (Materials Requirement Planning)
(B) MPS (Master Production Schedule)
(C) MRP-II (Manufacturing Resources Planning)
(D) BOM (Bill of Materials)

5. The scientific technique for planning the ordering and usage of material at various levels of production is :
- (A) MRP (B) MPS
(C) MRP-II (D) BOM
6. The aim of value engineering is to :
- (A) find the depreciation value of a machine
(B) determine the selling price of a product
(C) minimise the cost without lowering the quality of the product
(D) all of the above
7. In time study, the rating factor is applied to determine :
- (A) standard time of a job
(B) merit rating of the worker
(C) fixation of incentive rate
(D) normal time of a worker
8. Therbligs are used in :
- (A) Micro motion study (B) Operation process chart
(C) Flow process chart (D) None of these

9. The main object of scientific layout is :
- (A) to produce better quality of product
 - (B) to utilise floor area and space in an efficient manner
 - (C) to minimise production delays
 - (D) all of the above
10. The average activity duration in PERT is given by (where t_o = optimistic time, t_p = pessimistic time, and t_n = Most likely time) :
- (A) $\frac{t_o + t_p + t_n}{3}$
 - (B) $\frac{t_o + 2t_p + t_n}{4}$
 - (C) $\frac{t_o + 4t_p + t_n}{5}$
 - (D) $\frac{t_o + t_p + 4t_n}{6}$
11. Which of the following are the guidelines for the construction of a network diagram ?
- (A) Each activity is represented by one and only one arrow in the network
 - (B) Dangling must be avoided in a network diagram
 - (C) Dummy activity consumes no time or resource
 - (D) All of the above
12. A-B-C analysis is used in :
- (A) CPM
 - (B) PERT
 - (C) Inventory control
 - (D) All of these

13. Which of the following is *not* true in the context of depreciation ?
- (A) It reduces income tax burden
 - (B) It is an accounting procedure to recover expenses made on an asset used in the business
 - (C) It is not charged on land value
 - (D) It is an amount due to suppliers
14. Which of the following methods of economic analysis will *not* use the prevailing interest rate ?
- (A) IRR
 - (B) Present worth method
 - (C) Future worth method
 - (D) Annuity method
15. Which, out of the following financial instruments, is considered as the least risky ?
- (A) Bonds
 - (B) Debentures
 - (C) Common shares
 - (D) Preferential shares
16. Reduction in labour by 25% will cause labour productivity to improve by :
- (A) 13.3%
 - (B) 23.3%
 - (C) 33.3%
 - (D) 35.3%

17. Acceptance sampling can be used for those products that are produced by :
- (A) Batch production system
 - (B) Mass production system
 - (C) Cellular manufacturing system
 - (D) All of the above
18. Breakdown maintenance consists of :
- (A) Efforts to make the facility more available for production so as to have more of productivity
 - (B) Efforts to make the facility free from failure
 - (C) Efforts to restore facility to an acceptable operating level after breakdown
 - (D) Efforts to restore facility to an acceptable operating level before breakdown
19. Process control using control charts will lead to :
- (A) Establishment of standards
 - (B) Measurement of performance
 - (C) Correction of deviations
 - (D) All of the above

20. To enhance the reliability :
- (A) redundancy is provided in parallel
 - (B) redundancy is provided in series
 - (C) Both (A) and (B)
 - (D) Neither (A) nor (B)
21. The average weight of Arvind, Bala and Chandru is 50 kg, that of Arvind and Bala is 40 kg and Bala and Chandru is 38 kg. What is the weight of Bala ?
- (A) 6 kg
 - (B) 16 kg
 - (C) 36 kg
 - (D) 35 kg
22. A train 100 metres long is running at the speed 50 km/hr and another train 150 metres long is running at the speed 80 km/hr in the same direction. How long will faster train take to pass the first train ?
- (A) 20 sec
 - (B) 30 sec
 - (C) 40 sec
 - (D) 50 sec

23. In the length of a rectangular field is increased by 50%, by what percent should width be increased so that its area is increased by 80% ?
- (A) 10% (B) 20%
(C) 30% (D) 40%
24. If Anuj gets 25% more salary than Banu, then Banu gets salary :
- (A) 10% less than Anuj (B) 20% less than Anuj
(C) 25% less than Anuj (D) 30% less than Anuj
25. If $A : B = 2 : 3$ and $B : C = 5 : 7$, then $A : B : C$ is :
- (A) 10 : 21 : 15 (B) 10 : 15 : 21
(C) 15 : 10 : 21 (D) 21 : 10 : 15
26. If the income of a person is increased by 25% in first year and 15% in second year, then the percentage of total increase in the income is :
- (A) 40% (B) 43.75%
(C) 55% (D) 65%

27. A work can be completed by three persons A, B, C independently in 20, 15, 12 days respectively. If A is assisted by B on first day and by C next day alternatively, then the work will be finished in :
- (A) 4 days (B) 8 days
(C) 16 days (D) 32 days
28. Which one of the following years will have the same calendar as 2015 ?
- (A) 2024 (B) 2025
(C) 2026 (D) 2027
29. If the code of MATHEMATICS is QEXLIQEXMGW, then the code of BIOLOGY is :
- (A) FMSPSKC (B) FMPKCZC
(C) FMSSPKL (D) FMQEQWF
30. A is the B's sister. C is the B's mother. D is the C's father. E is the D's father. Then how is A related to D ?
- (A) Grandfather (B) Granddaughter
(C) Daughter (D) Grandmother

31. A man is facing west. He turns 45° in the clockwise direction and then 90° in the same direction and 225° in the anticlockwise direction. Which direction is he facing now ?
- (A) South (B) East
(C) South-West (D) North
32. Anuj started a business in Jan. 2011 with a capital of 2000 crore. In May 2011, Balu joins Anuj's business with 2500 crore. In July 2011, Chandu joins with 1500 crore. At the end of October 2011, Chandu received 420 crore as his profit. Then total profit is :
- (A) 2800 crore (B) 2820 crore
(C) 2840 crore (D) 2870 crore
33. The sum of all numbers upto 10,000 divisible by 2365 is :
- (A) 23065 (B) 23605
(C) 23650 (D) 23655
34. Amit purchases 87 articles for Rs. 890 and sells 60 articles for the same amount. How much will he gain if he sells all the articles ?
- (A) 20% (B) 27%
(C) 45% (D) 54%

35. The number of zeroes at the end of the $(5!)^{5!}$ is :
- (A) 100 (B) 110
(C) 120 (D) 130
36. If $2 : 30 :: k : 1342$, then k is :
- (A) 729 (B) 738
(C) 783 (D) 737
37. In how many different ways can the letters of the word PHYSICS be arranged ?
- (A) 1210 (B) 2500
(C) 2520 (D) 5040
38. If the side of a square is increased by 50%, then the percentage of increase in the area of square is :
- (A) 25% (B) 50%
(C) 100% (D) 125%

39. The largest possible area of the circle inscribed in the equilateral triangle with side 24 cm is :
- (A) 24π (B) 36π
(C) 48π (D) 60π
40. A bag contains 4 red balls and 5 black balls. If a ball is drawn at random from this bag, the probability that it is a red ball or a black ball is :
- (A) $4/9$ (B) $5/9$
(C) $1/2$ (D) 1
41. A tank can be filled by 30 buckets each of capacity 10 litres. If the capacity of each bucket is 6 litres, how many buckets will fill the same tank ?
- (A) 27 (B) 30
(C) 50 (D) 55
42. A person takes a loan of Rs. 200 at 5% simple interest. He returns Rs. 100 at the end of one year. In order to clear his dues at the end of 2 years, he would pay :
- (A) Rs. 100 (B) Rs. 105
(C) Rs. 110 (D) Rs. 115.50

43. In a race of one kilometre distance, Amit beats Susheel by 40 metres, or 8 seconds. What is the Amit's time over the course ?
- (A) 190 seconds (B) 192 seconds
(C) 199 seconds (D) 200 seconds
44. In a zoo, there are some pigeons and some rabbits. If their heads are counted these are 300 and if their legs are counted these are 750. How many pigeons are there ?
- (A) 200 (B) 225
(C) 250 (D) 275
45. A bank reduced the rate of interest from 5% to 4%. In order to keep his income from interest, Somendru deposited an additional amount of Rs. 2000. Find the original amount deposited by Somendru ?
- (A) Rs. 8,000 (B) Rs. 9,000
(C) Rs. 10,000 (D) Rs. 11,000

46. A person sold a watch for Rs. 144 at a profit percent equal to the cost price.
The cost price of the watch is :
- (A) 72 (B) 80
(C) 100 (D) 120
47. 'Cyclone' is related to 'Anticyclone', in the same way as 'Flood' is related to :
- (A) Devastation (B) Havoc
(C) River (D) Drought
48. Choose the number group which is different from the others :
- (A) 116 : 13 (B) 161 : 18
(C) 170 : 19 (D) 303 : 16
49. In a row of boys, A is 13th from the left and D is 17th from the right. If in this row A is 11th from the right, then what is the position of D from the left ?
- (A) 6th (B) 7th
(C) 10th (D) 13th

50. What should come in place of question mark (?) in the following number series ?

123, 126, 124, 127, ?, 128, 126, 129

(A) 125

(B) 126

(C) 127

(D) 128

51. Which is the largest glacier in Himachal Pradesh ?

(A) Chander Nahar

(B) Bara Shigri

(C) Beas Kund

(D) Dudhori

52. Which river *does not* find mention in the Rigveda ?

(A) Beas

(B) Yamuna

(C) Ravi

(D) Chenab

53. In which district of HP is Shilla peak ?

(A) Shimla

(B) Kullu

(C) Kinnaur

(D) Lahaul-Spiti

54. Who was the first European to visit Chamba area of HP ?
- (A) Vigne (B) Henry Lawrence
(C) Lord Napier (D) Major Blair Reid
55. Which raja of Kangra acceded to the throne in the same year as emperor Jahangir ?
- (A) Bidhi Chand (B) Bhim Chand
(C) Jai Chand (D) Trilok Chand
56. What is the harnessed potentia of Himurja according to Economic Survey, 2013-14 ?
- (A) 1.48 MW (B) 2.37 MW
(C) 3.12 MW (D) 3.60 MW
57. Which category of destitute women are covered under the Mother Teresa Asahay Matri Sambal Yojna ?
- (A) S.C. Women (B) S.C. and S.T. Women
(C) BPL Family Women (D) All of these

58. At which place in Kangra District is Ayurvedic Pharmacy located ?
- (A) Palampur (B) Paprola
(C) Harchakian (D) Pathiyar
59. How many districts were formed in November 1966 comprising Punjab Hill areas which were transferred to HP ?
- (A) Two (B) Three
(C) Four (D) Five
60. Who is the author of *Sanskrit Elements* in Seraji ?
- (A) Dr. Bansi Ram (B) Dr. Narinder Nath
(C) Dr. Padam Chand Kashyap (D) Dr. Khushi Ram
61. In which state of India is Sarni Power Plant ?
- (A) Maharashtra (B) Madhya Pradesh
(C) Bihar (D) Jharkhand

62. What was the victory margin in Ratia (SC) constituency during the 201 Haryana Vidhan Sabha elections ?
- (A) Three votes (B) Eight votes
(C) Twenty seven votes (D) Thirty six votes
63. When was the Censor Board of Film Certification set up in India ?
- (A) 1909 (B) 1920
(C) 1932 (D) 1936
64. With which field is Bharat Muni mainly associated ?
- (A) Mathematics (B) Architecture
(C) Astronomy (D) Drama
65. Who succeeded V.S. Sampath as the Chief Election Commissioner of India ?
- (A) Hari Om Brahma (B) Haripal Pradhan
(C) Hari Shankar Brahma (D) Hari Ram Bardhan

66. Which Country's President is Recep Tayyip Erdogan ?
- (A) Moldova (B) Mexico
(C) Gabon (D) Turkey
67. How many days did two Russian cosmonauts and one American astronaut stay in space before returning to earth on March 12, 2015 ?
- (A) 167 days (B) 182 days
(C) 196 days (D) 210 days
68. Which film personality was present on the accession of unveiling of Mahatma Gandhi's Statue at Parliament Square, London in March, 2015 ?
- (A) Amir Khan (B) Raj Babbar
(C) Amitabh Bachchan (D) Smriti Irani
69. Who is author of the book titled *Playing it my way* ?
- (A) Sunil Gavaskar (B) Brian Lara
(C) Sachin Tendulkar (D) Allen Border

70. Who won the ICC Twenty-20 'Performance of the Year Award', 2014 ?
- (A) Gary Ballance (B) Aron Finch
(C) Shikhar Dhawan (D) Bhuvnesh Kumar
71. Time series methods :
- (A) discover a pattern in historical data and project it into the future
(B) include cause-effect relationships
(C) are useful when historical information is not available
(D) all of the alternatives are true
72. Gradual shifting of a time series over a long period of time is called :
- (A) periodicity (B) cycle
(C) regression (D) trend
73. Seasonal components :
- (A) cannot be predicted
(B) are regular repeated patterns
(C) are long runs of observations above or below the trend line
(D) reflect a shift in the series over time

74. Short-term unanticipated, and non-recurring factors in a time series provide the random variability known as :
- (A) uncertainty (B) the forecast error
(C) the residuals (D) the irregular component
75. The focus of smoothing methods is to smooth :
- (A) the irregular component (B) wide seasonal variations
(C) significant trend effects (D) long range forecasts
76. Forecast errors :
- (A) are the differences in successive values of a time series
(B) are the differences between actual and forecast values
(C) should all be non-negative
(D) should be summed to judge the goodness of a forecasting model
77. To select a value for α for exponential smoothing :
- (A) use a small α when the series varies substantially
(B) use a large α when the series has little random variability
(C) use any value between 0 and 1
(D) all of the alternatives are true

78. Linear trend is calculated as $Tt = 28.5 + .75t$. The trend projection for period 15 is :
- (A) 11.25 (B) 28.50
(C) 39.75 (D) 44.25
79. The multiplicative model :
- (A) uses centered moving averages to smooth the trend fluctuations
(B) removes trend before isolating the seasonal components
(C) deseasonalizes a time series by dividing the values by the appropriate seasonal index
(D) provides a unique seasonal index for each observation of the time series
80. Process layout :
- (A) allows low variety and high volume mass production
(B) allows variety of products to be made on the same facilities
(C) has the dedicated facility leading to full automation
(D) all of the alternatives are true

81. A qualitative forecasting method that obtains forecasts through "group consensus" is known as the :
- (A) Autoregressive model
 - (B) Delphi approach
 - (C) Mean absolute deviation
 - (D) None of the above alternatives is correct
82. The trend component is easy to identify by using :
- (A) moving averages
 - (B) exponential smoothing
 - (C) regression analysis
 - (D) the Delphi approach
83. Fixed position layout is also known as :
- (A) analytical layout
 - (B) none of these
 - (C) synthetic layout
 - (D) static product layout
84. Military type of organisation is known as :
- (A) functional organisation
 - (B) line organisation
 - (C) line and staff organisation
 - (D) line, staff and functional organisation

85. The type of organisation preferred for a steel industry, is :
- (A) line organisation
 - (B) functional organisation
 - (C) line and staff organisation
 - (D) line, staff and functional organization
86. Production cost refers to prime cost plus :
- (A) factory and administration overheads
 - (B) factory overheads
 - (C) factory, administration and sales overheads
 - (D) factory, administration, sales overheads and profit
87. Work sampling is applied for :
- (A) estimation of the percentage utilisation of machine tools
 - (B) finding out time standards, specially where the job is not repetitive and where time study by stop watch method is not possible
 - (C) estimating the percentage of the time consumed by various job activities
 - (D) all of the above

88. In value engineering, the term value refers to :

- (A) selling price of the product
- (B) manufacturing cost of the product
- (C) total cost of the product
- (D) utility of the product

89. When slack of an activity is negative :

- (A) it represents a situation where extra resources are available and the completion of project is not delayed
- (B) it represents that a programme falls behind schedule and additional resources are required to complete the project in time
- (C) the activity is critical and any delay in its performance will delay the completion of whole project
- (D) all of the above

90. Probabilistic time for completion of any activity can be found out from :

- (A) optimistic time
- (B) pessimistic time
- (C) most likely time
- (D) all of these

91. In time study, the rating factor is applied to determine :
- (A) standard time of a job (B) merit rating of the worker
(C) fixation of incentive rate (D) normal time of a worker
92. A systematic job improvement sequence will consist of :
- (A) time study (B) motion study
(C) job enrichment (D) all of these
93. In inventory control theory, the economic order quantity is :
- (A) optimum lot size
(B) average level of inventory
(C) capacity of a warehouse
(D) lot size corresponding to break-even analysis
94. The procedure of modifying work content to give more meaning and enjoyment to the job by involving employees in planning, organisation and control of their work, is termed as :
- (A) job enrichment (B) job enlargement
(C) job rotation (D) job evaluation
95. Production cost refers to prime cost plus :
- (A) factory overheads
(B) factory and administration overheads
(C) factory, administration and sales overheads
(D) factory, administration, sales overheads and profit

96. Gantt chart is used for :
- (A) inventory control (B) production schedule
(C) machine repair schedules (D) material handling
97. The best strategy of minimizing the amount of safety inventory to be kept in a store without hurting the level of customer service is :
- (A) minimizing the uncertainty inherent in demand
(B) minimizing the cycle service level
(C) reducing the supply lead time
(D) minimizing the uncertainty inherent in supply
98. If the opening inventory is 400 units, purchased inventory is 900 units and sold inventory is 500 units, what will be ending inventory ?
- (A) 0 unit (B) 800 units
(C) 1,000 units (D) 400 units
99. Which document is issued by the purchaser when goods are delivered ?
- (A) Delivery order (B) Sales order
(C) Receive order (D) Purchase return
100. Which document is used when stock items are taken from one warehouse and sent to another warehouse ?
- (A) Issue note (B) Posting note
(C) Transfer note (D) Credit note