

1. A started a business with a certain amount. After 4 months, B replaces A. The ratio of their investment is 7 : 3. If the total profit after one year is Rs. 143000, then find the difference between the profit of A and B.

- A. Rs. 12500
- B. Rs. 11000
- C. Rs. 13000
- D. Rs. 14500
- E. None of these

2. Waqar sold a watch after giving a discount of 13% on the marked price and gained 30.5% profit. If he had sold it at 30% discount on marked price then find the gain or loss percentage of the watch.

- A. 3% loss
- B. 4% gain
- C. 6% loss
- D. 5% gain
- E. None of these

Direction: What should come in the place of question mark (?) in the given question?

3. 1, 3, 9, 31, ?, 651

- A. 129
- B. 132
- C. 121
- D. 119
- E. 108

4. 8, ?, 45, 110, 236, 453

- A. 18
- B. 20
- C. 17
- D. 24
- E. None of these

Direction: What should come in the place of question mark (?) in the given question?

5. 28, 29, 27, 33, 9, ?

- A. 129
- B. 132

- C. 124
- D. 115
- E. 144

6. Ratio of age of A and B is 4 : 5. Eight years hence, age of A will be equal to sum of B's age 8 years ago and C's age 8 years ago. If average of present ages of B and C is 30, find the present age of C.

- A. 24 years
- B. 15 years
- C. 12 years
- D. 20 years
- E. None of these

7. There are two right circular cylinders C_1 and C_2 . The ratio of the volumes of C_1 and C_2 is 4 : 1, and the heights of C_1 and C_2 are equal. If the difference between the radius of C_1 and C_2 is 7 cm, then find the radius of C_2 .

- A. 10 cm
- B. 5 cm
- C. 7 cm
- D. 10.5 cm
- E. None of these

Direction: Study the following information carefully and answer the questions that follow:

The table given below shows the data regarding the number of people (male + female) that registered for a seminar and the percentage of people (male + female) that attended the seminar out of those registered on four different days. (Monday, Tuesday, Wednesday, Thursday) The ratio of the males to females registered for seminar is also given.

Day	Total people registered for seminar (male + female)	Male : Female registered	Percentage of people who attended the seminar (male + female)
Monday	875	4 : 3	80%
Tuesday	1250	12 : 13	70%
Wednesday	1100	7 : 4	50%
Thursday	1500	3 : 2	60%

8.

If total number of people (male + female) that registered on Friday is 20% more than the total number of people (male + female) registered on Monday and there were 40% females among whom registered on Friday then find the number of males who registered on Friday.

- A. 720
- B. 690
- C. 630
- D. 750
- E. 600

9. Find the difference between the total number of people (male + female) that registered for the seminar on Tuesday and Wednesday and total number of people (male + female) that attended the seminar on Monday and Thursday.

- A. 750
- B. 690
- C. 800
- D. 840
- E. 720

10. If on Wednesday, the ratio of number of males and females who attended the seminar was 4 : 1, then the number of females who registered for the seminar but did not attend the seminar.

- A. 200
- B. 260
- C. 320
- D. 290
- E. 350

Direction: Study the following information carefully and answer the questions that follow:

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four different days. (Monday, Tuesday, Wednesday, Thursday) The ratio of the males to females registered for seminar is also given.

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Tuesday	1250	12 : 13	70%
Wednesday	1100	7 : 4	50%
Thursday	1500	3 : 2	60%

11. The number of females registered for seminar on Thursday is what percentage more than the number of males registered for seminar on Monday.

- A. 18%
- B. 25%
- C. 20%
- D. 30%
- E. None of these

Direction: Study the following information carefully and answer the questions that follow:

The table given below shows the data regarding the number of people (male + female) that registered for a seminar and the percentage of people (male + female) that attended the seminar out of those registered on four different days. (Monday, Tuesday, Wednesday, Thursday) The ratio of the males to females registered for seminar is also given.

Day	Total people registered for seminar (male + female)	Male : Female registered	Percentage of people who attended the seminar (male + female)
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Tuesday	1250	12 : 13	70%
Wednesday	1100	7 : 4	50%
Thursday	1500	3 : 2	60%

12. What is the ratio of the number of people that attended the seminar on Tuesday and number of people that attended the seminar on Wednesday?

- A. 25 : 23
- B. 35 : 22
- C. 30 : 23
- D. 28 : 25
- E. None of these

13.If on Thursday, 40% of females who registered for seminar also attended it then find the number of males who attended seminar.

- A. 660
- B. 720
- C. 690
- D. 750
- E. 600

14.Monthly income of Waseem is 130% of Shabana. Savings of Waseem and Shabana are equal and they spend the remaining. Shabana saves Rs. 12000 per month which is 20% of her monthly salary. How much does Waseem spend in a month?

- A. Rs. 70000
- B. Rs. 56000
- C. Rs. 64000
- D. Rs. 66000
- E. None of these

15.A vessel contains 240 litres of mixture of milk and water in which the quantity of milk is 200 litres. If 40 litres of water is added to vessel and 35 litres of mixture is taken out, then the quantity of milk in mixture is approximately what percent of total quantity of mixture?

- A. 61%
- B. 75%
- C. 65%
- D. 71%
- E. 80%

16.Two pipes A and B can fill a tank in 16 hours and 20 hours. If the tank

is already $\frac{1}{4}$ full and pipe A is opened for 6 hours and then closed, then in how much time can pipe B fill the remaining part of the tank alone?

- A. 7.5 hours
- B. 9 hours
- C. 7.2 hours

- D. 8 hours
- E. None of these

17.The interest earned on a sum of money is 37.5% of the amount earned on the same sum of money when invested for 4 years in a scheme offering simple interest at R% per annum, find the value of R.

- A. 12
- B. 15
- C. 8
- D. 10
- E. None of these

Direction: In the following question two equations are given in variables X and Y. You have to solve these equations and determine the relation between X and Y.

18.

I. $x^2 - 5x - 84 = 0$

II. $y^2 - 9y - 52 = 0$

A. $x > y$

B. $x \leq y$

C. $x < y$

D. $x \geq y$

E. $x = y$ or relationship between x and y can't be established

19.

I. $x^2 + 7x + 12 = 0$

II. $y^2 + 5y + 6 = 0$

A. $x > y$

B. $x \leq y$

C. $x < y$

D. $x \geq y$

E. $x = y$ or relationship between x and y can't be established

Direction: In the following question two equations are given in variables X and Y. You have to solve these equations and determine the relation between X and Y.

20.

I. $3x^2 + 8x + 4 = 0$

II. $6y^2 + 7y + 2 = 0$

- A. $x > y$
- B. $x \leq y$
- C. $x < y$
- D. $x \geq y$
- E. $x = y$ or relationship between x and y can't be established

Direction: Study the following information carefully and answer the given questions.

Eight people P, Q, R, S, T, U, V, and W live on eight different floors of the building but not necessarily in the same order. Each person lives in a building with floors numbered as 1 to 8 from bottom to top.

U lives on an odd-numbered floor above the fourth floor. Only three people live between U and W. Number of people live above W is same as the number of people live below P. Three people live between P and R. V lives on an odd-numbered floor immediately above Q. Only two people live between V and S. T lives on the lowermost floor.

21.

Who lives immediately below U?

- A. R
- B. U
- C. Q
- D. P
- E. W

22. Q lives on the _____ floor.

- A. 4th
- B. 6th
- C. 2nd
- D. 1st
- E. None of the above

23. Who lives on the 3rd floor?

- A. P
- B. Q
- C. R

- D. T
- E. W

24. Who lives on the topmost floor?

- A. S
- B. P
- C. R
- D. Q
- E. T

25. How many people live between U and W?

- A. 2
- B. 3
- C. 4
- D. 6
- E. 5

Direction: In each of the questions below are given few statements followed by four conclusions. You have to take the given statements to be true even if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follow from the given statements disregarding commonly known facts.

26.

Statements:

Some path are trail.

All trail are stain.

Some stain are fast.

Conclusions:

I. Some trail are stain.

II. Some path are stain.

A. Only I follows

B. Only II follows

C. Both I and II follow

D. Either I or II follow

E. Neither I nor II follows

27. **Statements:**

Some Sword are Pistol.

No Knife are Risk.

All Pistol are Knife.

Conclusions:

- I. No pistol is Risk
- II. Some Sword are not Knife.
- A. Only I follows
- B. Only II follows
- C. Both I and II follow
- D. Either I or II follow
- E. Neither I nor II follows

28. Statements:

All ball is rat.
All rat is feather.
No feather is troll.

Conclusions:

- I. Some feather are ball.
- II. Some troll are rat.
- A. Only I follows
- B. Only II follows
- C. Both I and II follow
- D. Either I or II follows
- E. Neither I nor II follows

29. Statements:

Some crow are doll.
All doll are clove.
Some clove are route.

Conclusions:

- I. Some doll are route.
- II. Some crow are clove.
- A. Only I follows
- B. Only II follows
- C. Both I and II follow
- D. Either I or II follows
- E. Neither I nor II follows

30. Statements:

All planes are aslant.
Some aslant are fans.
All fans are bans.

Conclusions:

- I. All planes being fans is a possibility.
- II. Some bans are planes.
- A. Only I follows
- B. Only II follows
- C. Both I and II follow
- D. Either I or II follows
- E. Neither I nor II follows

Direction: Study the following information and answer the given questions below.

Eight girls M, N, O, P, Q, R, S and T are sitting on a circular table, not necessarily in the same order, such that some of them are facing an inward direction and others are facing an outward direction. N is sitting 3rd to the left of R, who is facing inside. Four girls are sitting between M and N. O, who is facing outside the table, is an immediate neighbour of neither M nor N. P faces the same direction as the person seated opposite to her is facing. T sits fifth to the left of Q, who is not adjacent to N. S and R is not facing the same direction. P sits to the immediate left of N. T and M face the same direction but opposite to P. S doesn't sit exactly between R and M.

31. Who sits sixth to the left of M?

- A. O
- B. R
- C. N
- D. T
- E. None of the above

32. How many people face outside the table?

- A. 5
- B. 3
- C. 2
- D. 4
- E. None of the above

Direction: In each question, some statements and two conclusions are given. You have to decide which of the given conclusions logically follow(s) according to the given statements. Study the following data carefully and answer the questions accordingly.

33.

Statements:

$A < R = F \leq N; C \leq B \geq L > S = N$

Conclusions:

- I. $A \geq L$
- II. $S \geq F$
- A. Only I follows
- B. Only II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

34. Statements:

$Q \geq E \leq A < L$; $H \leq E \geq M = L$

Conclusions:

- I. $L \leq Q$
- II. $L < H$
- A. Only I follows
- B. Only II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

35. Statements:

$A > F \geq D = R$; $N < X > J \geq R$; $S > B \leq V = A$

Conclusions:

- I. $X > B$
- II. $V > J$
- A. Only I follows
- B. Only II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

Direction: Study the following data carefully and answer the questions accordingly.

Ten people are born in five different months i.e. January, March, June, September, and October of the same year, two people were born in one month.

Note: Persons born in the same month are "time twins" i.e. they were born at the same time on the same day, in the same month.

W was born just before S and just after V. U and P were born in the same month having 31 days. S was born in a month having 30 days. R is just elder than X and just younger than Q. X is neither the youngest nor the eldest person in the group. Y is elder than T who was not born in the same month as S.

36.

T was born before _____ but after _____.

- A. Y, R
- B. Y, S
- C. V, Q
- D. U, P
- E. None of the above

37. S was born in _____.

- A. January
- B. March
- C. June
- D. October
- E. None of the above

38. Who among the following was born in January?

- A. W
- B. V
- C. X
- D. U
- E. None of the above

39. How many people are younger than R?

- A. 3
- B. 4
- C. 2
- D. 6
- E. None of the above

40. P was born in the month of _____.

- A. January
- B. March
- C. October
- D. June
- E. September

41. When data changes in multiple lists and all lists are not updated, this causes _____.

- A. data redundancy
- B. information overload
- C. duplicate data
- D. data inconsistency
- E. None of these

42. Which of the following search engines continuously sends out that starts on a homepage of a server and pursue all links stepwise ?

- A. Spiders
- B. Packets
- C. Cookies
- D. asPaddle
- E. None of these

43. What kind of Protocol is used to provide Internet access from mobile?

- A. TCP/IP
- B. ISD
- C. WAP
- D. HTTP
- E. None of these

44. One or more defects or problems that prevent the software from working as intended or working at all is a(n)_____.

- A. Bug
- B. Boot
- C. Programming language
- D. Fuzzy logic
- E. None of these

45. Which of the following is used with databases?

- A. Data mining
- B. EDI
- C. Credit cards
- D. All of the above
- E. None of the these

46. The type of computers used by large organizations for critical

applications where a large number of transactions need to be processed are called

- A. Mainframe computer
- B. Mini-computer
- C. Microcomputer
- D. PDA
- E. None of these

47. Which of the following is used by the browser to connect to the location of the Internet resources?

- A. DOC
- B. XML
- C. HTML
- D. URL
- E. None of these

48. _____ is the process of dividing the disk into tracks and sectors.

- A. Tracking
- B. Formatting
- C. Crashing
- D. Allotting
- E. None of these

49. The definition of thrashing is_____.

- A. swapping data between virtual memory and RAM too frequently.
- B. insufficient hard disk space.
- C. too many processors being managed by the operating system.
- D. inaccurate information stored in the registry.
- E. None of these

50. A _____ is a major database object used to display information in a printable page format.

- A. form
- B. query
- C. report
- D. table
- E. None of these

51.The physical arrangement of elements on a page is referred to as a document's _____.

- A. features
- B. format
- C. pagination
- D. grid
- E. None of these

52.What is a person called who uses a computer to cause harm to people or destroy critical systems?

- A. Cyberterrorist
- B. Black-hat hacker
- C. Cyber Cracker
- D. Hacktivist
- E. None of these

53.The secret code that restricts entry to some programs_____.

- A. password
- B. passport
- C. entry-code
- D. access-code
- E. None of these

54.A connection from one HTML document to another HTML document is called_____.

- A. Hyper Link
- B. Connecting Link
- C. Icon
- D. All of these
- E. None of these

55._____is the science and art of transforming messages to make them secure and immune to attacks.

- A. Cryptography
- B. Cryptoanalysis
- C. Cryptology
- D. cryptoanarchy
- E. Cryptoanalytics

56.The _____ component is used by the data analyst to create the queries that access the database.

- A. Data extraction

- B. End-user query tool
- C. End-user presentation tool
- D. Data store
- E. None of these

57.What does the acronym PDF stand for?

- A. Portable Documentation File
- B. Portable Document Format
- C. Portable Document File
- D. Portable Documenting Format
- E. Portable Documentation Format

58.Normalization is a process of restructuring a relation to_____.

- A. Minimize duplication of data in a database
- B. Maximize duplication of data to ensure reliability in
- C. Make it of uniform size
- D. Allow addition of data
- E. None of these

59.A network geometric arrangement in which a single connecting line is shared by a number of nodes is called_____.

- A. Car Topology
- B. Bus Topology
- C. Truck Topology
- D. All of the above
- E. None of these

60.By viewing the properties of the local hard disk of a computer, the user can find out_____.

- A. The amount of space that has been used up and the remaining free space on the disk.
- B. The name of the user viewing the properties of the disk.
- C. Nothing useful to the user.
- D. The number of programs available in the computer.
- E. None of these

61. Which type of Ecosystem has richest alluvial soil with adequate water?

- A. Northern plain
- B. North-East India
- C. Eastern coastal Belt
- D. Western coastal Belt
- E. None of the above

62. Recently Union Finance Minister announced in the budget 2020-21 about the revival of Agriculture sector under _____ point programme?

- A. Eight Point
- B. Ten Point
- C. Twelve Point
- D. Sixteen Point
- E. Twenty Point

63. Which of the following crops occupies largest area in India?

- A. Onion
- B. Garlic
- C. Potato
- D. Carrot
- E. Cabbage

64. What is rosette in groundnut?

- A. peanut pathogenic virus
- B. peanut pathogenic bacteria
- C. peanut pathogenic Fungi
- D. peanut pathogenic Nematodes
- E. None of the above

65. Which of the following crops is known as the white gold?

- A. White Millets
- B. Cotton
- C. Silk
- D. Sugarcane
- E. None of the above

66. Padma Shri Award 2019 for this year under the category 'others-agriculture' has been awarded to whom?

- A. Ms Kamla Pujari
- B. Chandra Shekhar Singh

- C. Jai Prakash Agarwal
- D. Dalavai Chalapathi Rao
- E. Sarita Joshi

67. Which of the following statements is incorrect regarding the PM-KISAN Samman Nidhi?

- A. Scheme gives Rs. 6000 at the starting of the year
- B. Farmers from both the urban and rural areas are eligible for the scheme
- C. PM Kisan Yojana came into effect from December 1, 2018
- D. Landholding farmers' families with cultivable landholding in their names can apply under this scheme
- E. The scheme defines family as husband, wife and minor children

68. What is the operating ratio under farm management?

- A. Ratio of operating expenses /Gross Profit
- B. Ratio of operating expenses /Net Profit
- C. Ratio of operating expenses /Gross Loss
- D. Ratio of operating expenses /Total Expense
- E. None of the above

69. Arrange the production share of horticulture crops in 2018-19?

- A. Spices<Fruits<Vegetables
- B. Fruits<Vegetables<Spices
- C. Vegetables<Spices< Fruits
- D. Vegetables<Fruits<Spices
- E. Fruits<Spices<Vegetables

70. Arrange the production share of horticulture crops in 2018-19?

- A. Spices<Fruits<Vegetables
- B. Fruits<Vegetables<Spices
- C. Vegetables<Spices< Fruits
- D. Vegetables<Fruits<Spices
- E. Fruits<Spices<Vegetables

71. Price Support Scheme and Price Deficiency Payment Scheme are part of which of the following schemes?

- A. PM-KISAN Scheme
- B. Krishi Sampada Yojana
- C. PM Annadata Aay Sanrakshan Abhiyan
- D. Pradhan Mantri Krishi Sinchai Yojana
- E. None of the above

72. Which committee recommended democratic decentralization of that later came to be known as Panchayati Raj?

- A. Balwant Rai Mehta Committee
- B. Fazal Ali Committee
- C. G V K Rao Committee
- D. L M Singhvi Committee
- E. Narasimham Committee

73. Which soil has the highest water retaining capacity?

- A. Black Soil
- B. Clay Soil
- C. Alluvial Soil
- D. Laterite Soil
- E. Red Soil

74. What percent of Subsidy to be provided for combine Harvester?

- A. 20 per cent
- B. 25 per cent
- C. 30 per cent
- D. 35 per cent
- E. 40 per cent

75. Which of the following is the most deciding factor to determine the Minimum Support Price (MSP) taken into consideration by the Commission for Agricultural Costs and Prices (CACP)?

- A. Cost of production
- B. Changes in input prices
- C. Input-output price parity
- D. Trends in market prices
- E. Demand and supply

76. Which fish lives in fresh water but breed in salt water?

- A. Anadromous fishes
- B. Catadromous fishes
- C. Diadromous fishes
- D. Potamodromous fishes
- E. Oceanodromous fishes

77. Which soil has self-ploughing property?

- A. Black Soil
- B. Clay Soil
- C. Alluvial Soil
- D. Laterite Soil
- E. Red Soil

78. Interest subvention of 2% is given to farmers, what is the interest rate before subvention?

- A. 5%
- B. 6%
- C. 7%
- D. 8%
- E. 9%

79. Which of the following is not true about the 'Deen Dayal Antyodaya Yojna'?

- A. Livelihood of only Urban BPL Families is covered
- B. Livelihood of Urban poor folks through skill development
- C. National Rural Livelihoods Mission (NRLM) also covered under the scheme
- D. Urban component of scheme will be implemented by the Ministry of Housing and Urban Poverty Alleviation.
- E. Rural component of the will be implemented by the [Ministry of Rural Development](#).

80. Banking correspondent model was introduced by the Reserve Bank of India in which year?

- A. 2003

- B. 2004
- C. 2005
- D. 2006
- E. 2008

81. Which state is the largest producer of sunflower?

- A. Tamil Nadu
- B. Madhya Pradesh
- C. Uttar Pradesh
- D. Karnataka
- E. Andhra Pradesh

82. The most dominant fraction of soil degradation in India in dry land climate zone (semi-Arid zone) is _____.

- A. Wind Erosion
- B. Gully Erosion
- C. Splash erosion
- D. Sheet Erosion
- E. Rill Erosion

83. 100 Days employment is provided under which scheme?

- A. MGNREGA
- B. Rural Poverty Alleviation Programme
- C. Jawahar Rojgar Yojna
- D. Mahila Samridhi Yojna
- E. Swarn Jayanti Shahri rojgar Yojna

84. Maximum greenhouse gases are released from _____.

- A. Construction Sector
- B. Energy Sector
- C. Transport Sector
- D. Manufacturing Sector
- E. Agriculture Sector

85. Which is the most serious disease of poultry in India?

- A. Ranikhet
- B. Fowl Pox
- C. Fowl Coccidiosis
- D. Fowl Coryza
- E. None of the above

86. Economic life of Poultry layer bird is _____.

- A. 6 weeks
- B. 12 weeks
- C. 14 weeks
- D. 18 weeks
- E. 22 weeks

87. Which nutrients is required for synthesis of sugar in sugarcane?

- A. Calcium
- B. Potassium
- C. Iron
- D. Sodium
- E. Starch

88. Irrigation projects having Culturable Command Area (CCA) of less than _____ each are classified as minor projects?

- A. 2000 hectares
- B. 4000 hectares
- C. 6000 hectares
- D. 10,000 hectares
- E. 15,000 hectares

89. Which among the following is the most efficient crop in the world in converting energy from sunlight into chemical energy?

- A. Sugarcane
- B. Wheat
- C. Rice
- D. Beetroot
- E. Pumpkin

90. Healthy earth green farm (Swasth Dhara Khet Hara) is a logan of which scheme?

- A. Neem Urea Scheme
- B. Integrated Wasteland Development Programme
- C. Soil Health Card Scheme
- D. Watershed Management Programme
- E. None of the above

91. According to India Meteorological Department (IMD), a rainy day has been defined as a day with rainfall of:

- A. 1 mm
- B. 2 mm
- C. 2.5 mm
- D. 3 mm
- E. 4 mm

92. Which of the following pair of main crop and trap crop is correct?

- A. Rice and Moong
- B. Wheat and Green Gram
- C. Green gram- Moong
- D. Garlic and Basil
- E. None of the above

93. The sheep breed with the finest quality of carpet wool is _____.

- A. Chokla
- B. Marwari
- C. Jamnapari
- D. Nilgiri
- E. Lohi

94. Which state has the highest coverage under micro irrigation?

- A. Karnataka
- B. Uttara Pradesh
- C. Rajasthan
- D. Tamil Nadu
- E. Maharashtra

95. What is the botanical name of the Elephant Grass?

- A. Pennisetum purpureum Schumach
- B. Cynodon dactylon
- C. Stenotaphrum secundatum
- D. Sporobolus tremulus
- E. Poa annua

96. Which of the following is the regulator of commodity exchange?

- A. RBI
- B. SEBI
- C. IRDAI
- D. TRAI
- E. PFRDA

97. Lancing is practiced in which crop?

- A. Opium
- B. Cotton
- C. Almonds
- D. Saffron
- E. Cashew

98. Which is the knowledge partner of the committee on doubling the farmers income?

- A. NCAER
- B. CSIR
- C. ICAR
- D. NITI Aayog
- E. None of the above

99. Crop best suited for crop rotation to enrich soil with nitrogen?

- A. Alfalfa
- B. Tea
- C. Garlic
- D. Basil
- E. Sugarcane

100. Tipping is practiced in cultivation of which crop?

- A. Alfalfa
- B. Tea
- C. Garlic
- D. Basil
- E. Sugarcane

###ANSWERS###

1. Ans. B.

Let the investment of A be Rs. $7x$

Investment of B = Rs. $3x$

Profit ratio of A and B = $7x \times 4 : 3x \times 8 = 7 : 6$

Profit share of A = $\frac{143000}{13} \times 7 = \text{Rs. } 77000$

Profit share of B = $\frac{143000}{13} \times 6 = \text{Rs. } 66000$

Required difference of profit share of A and B = $77000 - 66000 = \text{Rs. } 11000$

Hence, option B is correct.

2. Ans. D.

Let the cost price of the watch be Rs. $100x$

Selling price of the watch = $100x \times 130.5\% = \text{Rs. } 130.5x$

Marked price of the watch = $\frac{130.5x}{87} \times 100 = \text{Rs. } 150x$

After given 30% discount, selling price of the watch = $150x \times 70\% = \text{Rs. } 105x$

Gain percentage = $\frac{105x - 100x}{100x} \times 100 = 5\% \text{ gain}$

Hence, option D is correct.

3. Ans. A.

The pattern of the series is:

$$1 \times 1 + 2 = 3$$

$$3 \times 2 + 3 = 9$$

$$9 \times 3 + 4 = 31$$

$$31 \times 4 + 5 = 129$$

$$129 \times 5 + 6 = 651$$

Hence, option A is correct.

4. Ans. C.

The pattern of the series is:

$$8 + (2^3 + 1) = 17$$

$$17 + (3^3 + 1) = 45$$

$$45 + (4^3 + 1) = 110$$

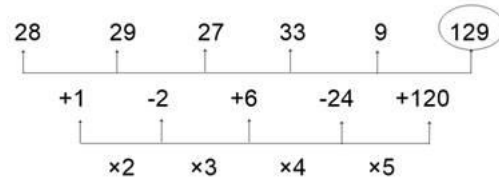
$$110 + (5^3 + 1) = 236$$

$$236 + (6^3 + 1) = 453$$

Hence, option C is correct.

5. Ans. A.

The pattern of the series is:



Hence, option A is correct.

6. Ans. B.

Let the present age of A be $4x$ years

Present age of B = $5x$ years

Total present age of B and C = $30 \times 2 = 60$ years

Present age of C = $60 - 5x$ years

According to the data provided in the question, we get

$$4x + 8 = 5x - 8 + (60 - 5x) - 8$$

$$\Rightarrow 4x + 8 = 60 - 16$$

$$\Rightarrow 4x = 36$$

$$\Rightarrow x = 9$$

Present age of C = $60 - 5 \times 9 = 15$ years

Hence, option B is correct.

7. Ans. C.

Let the height of C_1 be h cm and radius of C_2 be r cm.

Height of $C_2 = h$ cm

Radius of $C_1 = (r + 7)$ cm

According to the data provided in the question, we get

$$\frac{\pi \times (r + 7)^2 \times h}{\pi \times r^2 \times h} = \frac{4}{1}$$

$$\Rightarrow (r + 7)^2 = 4r^2$$

$$\Rightarrow r^2 + 49 + 14r = 4r^2$$

$$\Rightarrow 3r^2 - 14r - 49 = 0$$

$$\Rightarrow 3r^2 - (21 - 7)r - 49 = 0$$

$$\Rightarrow 3r^2 - 21r + 7r - 49 = 0$$

$$\Rightarrow 3r(r - 7) + 7(r - 7) = 0$$

$$\Rightarrow (r - 7)(3r + 7) = 0$$

$$\Rightarrow r = 7, -\frac{7}{3}$$

Radius can't be negative. So, the radius of $C_2 = 7$ cm

Hence, option C is correct.

8. Ans. C.

Day	Total people registered for seminar (male + female)	Males registered	Females registered	Number of people who attended the seminar (male + female)
Monday	875	$875 \times \frac{4}{7} = 500$	$875 \times \frac{3}{7} = 375$	$875 \times 80\% = 700$
Tuesday	1250	$1250 \times \frac{12}{25} = 600$	$1250 \times \frac{13}{25} = 650$	$1250 \times 70\% = 875$
Wednesday	1100	$1100 \times \frac{7}{11} = 700$	$1100 \times \frac{4}{11} = 400$	$1100 \times 50\% = 550$
Thursday	1500	$1500 \times \frac{3}{5} = 900$	$1500 \times \frac{2}{5} = 600$	$1500 \times 60\% = 900$

Number of people (male + female) registered on Friday = $875 \times 120\% = 1050$

The number of males who registered on Friday = $1050 \times (100 - 40)\% = 630$

Hence, option C is correct.

9. Ans. A.

Day	Total people registered for seminar (male + female)	Males registered	Females registered	Number of people who attended the seminar (male + female)
Monday	875	$875 \times \frac{4}{7} = 500$	$875 \times \frac{3}{7} = 375$	$875 \times 80\% = 700$
Tuesday	1250	$1250 \times \frac{12}{25} = 600$	$1250 \times \frac{13}{25} = 650$	$1250 \times 70\% = 875$
Wednesday	1100	$1100 \times \frac{7}{11} = 700$	$1100 \times \frac{4}{11} = 400$	$1100 \times 50\% = 550$
Thursday	1500	$1500 \times \frac{3}{5} = 900$	$1500 \times \frac{2}{5} = 600$	$1500 \times 60\% = 900$

Required difference = $(1250 + 1100) - (700 + 900) = 750$

Hence, option A is correct.

10. Ans. D.

Day	Total people registered for seminar (male + female)	Males registered	Females registered	Number of people who attended the seminar (male + female)
Monday	875	$875 \times \frac{4}{7} = 500$	$875 \times \frac{3}{7} = 375$	$875 \times 80\% = 700$
Tuesday	1250	$1250 \times \frac{12}{25} = 600$	$1250 \times \frac{13}{25} = 650$	$1250 \times 70\% = 875$
Wednesday	1100	$1100 \times \frac{7}{11} = 700$	$1100 \times \frac{4}{11} = 400$	$1100 \times 50\% = 550$
Thursday	1500	$1500 \times \frac{3}{5} = 900$	$1500 \times \frac{2}{5} = 600$	$1500 \times 60\% = 900$

Number of males who attended seminar on Wednesday = $550 \times \frac{4}{5} = 440$

Number of females who attended seminar on Wednesday = $550 \times \frac{1}{5} = 110$

Number of females who registered for seminar but did not attend the seminar on Wednesday = $400 - 110 = 290$

Hence, option D is correct.

11. Ans. C.

Day	Total people registered for seminar (male + female)	Males registered	Females registered	Number of people who attended the seminar (male + female)
Monday	875	$875 \times \frac{4}{7} = 500$	$875 \times \frac{3}{7} = 375$	$875 \times 80\% = 700$
Tuesday	1250	$1250 \times \frac{12}{25} = 600$	$1250 \times \frac{13}{25} = 650$	$1250 \times 70\% = 875$
Wednesday	1100	$1100 \times \frac{7}{11} = 700$	$1100 \times \frac{4}{11} = 400$	$1100 \times 50\% = 550$
Thursday	1500	$1500 \times \frac{3}{5} = 900$	$1500 \times \frac{2}{5} = 600$	$1500 \times 60\% = 900$

Required percentage = $\frac{600 - 500}{500} \times 100 = 20\%$

Hence, option C is correct.

12. Ans. B.

Day	Total people registered for seminar (male + female)	Males registered	Females registered	Number of people who attended the seminar (male + female)
Monday	875	$875 \times \frac{4}{7} = 500$	$875 \times \frac{3}{7} = 375$	$875 \times 80\% = 700$
Tuesday	1250	$1250 \times \frac{12}{25} = 600$	$1250 \times \frac{13}{25} = 650$	$1250 \times 70\% = 875$
Wednesday	1100	$1100 \times \frac{7}{11} = 700$	$1100 \times \frac{4}{11} = 400$	$1100 \times 50\% = 550$
Thursday	1500	$1500 \times \frac{3}{5} = 900$	$1500 \times \frac{2}{5} = 600$	$1500 \times 60\% = 900$

Required ratio = $875 : 550 = 35 : 22$

Hence, option B is correct.

13. Ans. A.

Day	Total people registered for seminar (male + female)	Males registered	Females registered	Number of people who attended the seminar (male + female)
Monday	875	$875 \times \frac{4}{7} = 500$	$875 \times \frac{3}{7} = 375$	$875 \times 80\% = 700$
Tuesday	1250	$1250 \times \frac{12}{25} = 600$	$1250 \times \frac{13}{25} = 650$	$1250 \times 70\% = 875$
Wednesday	1100	$1100 \times \frac{7}{11} = 700$	$1100 \times \frac{4}{11} = 400$	$1100 \times 50\% = 550$
Thursday	1500	$1500 \times \frac{3}{5} = 900$	$1500 \times \frac{2}{5} = 600$	$1500 \times 60\% = 900$

Number of females who attended the seminar on Thursday = $600 \times 40\% = 240$

Number of males who attended the seminar on Thursday = $900 - 240 = 660$

Hence, option A is correct.

14. Ans. D.

Monthly saving of Shabana = Rs. 12000

Monthly income of Shabana = $\frac{12000}{20} \times 100 = \text{Rs. } 60000$

Monthly income of Waseem = $60000 \times 130\% = \text{Rs. } 78000$

Monthly saving of Waseem = Rs. 12000

Amount spent by Waseem in a month = $78000 - 12000 = \text{Rs. } 66000$

Hence, option D is correct.

15. Ans. D.

The quantity of milk in the mixture = 200 litres

The quantity of water in the mixture = 40 litres

After adding water in the mixture, the quantity of water in the mixture = 40 + 40 = 80 litres

Ratio of the milk to water in the mixture = 200 : 80 = 5 : 2

After taking out the mixture,

The quantity of milk in the final

mixture = $200 - 35 \times \frac{5}{7} = 175$ litres

The quantity of milk in the final

mixture = $80 - 35 \times \frac{2}{7} = 70$ litres

Total quantity of the final mixture = 175 + 70 = 245 litres

Required percentage = $\frac{175}{245} \times 100 = 71.42\% \approx 71\%$

Hence, option D is correct.

16. Ans. A.

Let the capacity of the tank be 80 litres.

Amount of the tank filled by tank A in

one hour = $\frac{80}{16} = 5$ litres

Amount of the tank filled by tank B in

one hour = $\frac{80}{20} = 4$ litres

Amount of the tank filled by tank A in 6 hours = 5 × 6 = 30 litres

Remaining part of the tank = $80 \times \frac{3}{4} - 30 = 30$ litres

Time taken by pipe B to fill the

remaining part of the tank = $\frac{30}{4} = 7.5$ hours

Hence, option A is correct.

17. Ans. B.

Let the principal be Rs. 100x

Simple interest earned = 100x × R% × 4 = Rs. 4Rx

According to the data provided in the question, we get

4Rx = (100x + 4Rx) × 37.5%

⇒ 4R = 37.5 + 1.5R

⇒ 2.5R = 37.5

⇒ R = 15

Hence, option B is correct.

18. Ans. E.

I. $x^2 - 5x - 84 = 0$

⇒ $x^2 - (12 - 7)x - 84 = 0$

⇒ $x^2 - 12x + 7x - 84 = 0$

⇒ $x(x - 12) + 7(x - 12) = 0$

⇒ $(x - 12)(x + 7) = 0$

⇒ $x = 12, -7$

II. $y^2 - 9y - 52 = 0$

⇒ $y^2 - (13 - 4)y - 52 = 0$

⇒ $y^2 - 13y + 4y - 52 = 0$

⇒ $y(y - 13) + 4(y - 13) = 0$

⇒ $(y - 13)(y + 4) = 0$

⇒ $y = 13, -4$

No relation can be established between x and y.

So, option E is correct.

19. Ans. B.

I. $x^2 + 7x + 12 = 0$

⇒ $x^2 + (4 + 3)x + 12 = 0$

⇒ $x^2 + 4x + 3x + 12 = 0$

⇒ $x(x + 4) + 3(x + 4) = 0$

⇒ $(x + 4)(x + 3) = 0$

⇒ $x = -4, -3$

II. $y^2 + 5y + 6 = 0$

⇒ $y^2 + (3 + 2)y + 6 = 0$

⇒ $y^2 + 3y + 2y + 6 = 0$

⇒ $y(y + 3) + 2(y + 3) = 0$

⇒ $(y + 3)(y + 2) = 0$

⇒ $y = -2, -3$

So, $x \leq y$.

Hence, option B is correct.

20. Ans. B.

I. $3x^2 + 8x + 4 = 0$

⇒ $3x^2 + (6 + 2)x + 4 = 0$

⇒ $3x^2 + 6x + 2x + 4 = 0$

⇒ $3x(x + 2) + 2(x + 2) = 0$

⇒ $(x + 2)(3x + 2) = 0$

⇒ $x = -2, -\frac{2}{3}$

II. $6y^2 + 7y + 2 = 0$

⇒ $6y^2 + (4 + 3)y + 2 = 0$

⇒ $6y^2 + 4y + 3y + 2 = 0$

⇒ $2y(3y + 2) + 1(3y + 2) = 0$

⇒ $(3y + 2)(2y + 1) = 0$

$$\Rightarrow y = -\frac{2}{3}, -\frac{1}{2}$$

So, $x \leq y$.

Hence, option B is correct.

21. Ans. D.

Floors	Persons
8	S
7	U
6	P
5	V
4	Q
3	W
2	R
1	T

22. Ans. A.

Floors	Persons
8	S
7	U
6	P
5	V
4	Q
3	W
2	R
1	T

23. Ans. E.

Floors	Persons
8	S
7	U
6	P
5	V
4	Q
3	W
2	R
1	T

24. Ans. A.

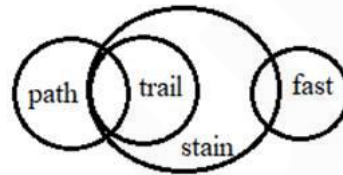
Floors	Persons
8	S
7	U
6	P
5	V
4	Q
3	W
2	R
1	T

25. Ans. B.

Floors	Persons
8	S
7	U
6	P
5	V
4	Q
3	W
2	R
1	T

26. Ans. C.

The least possible Venn diagram for the given statements is as follows:



Conclusions:

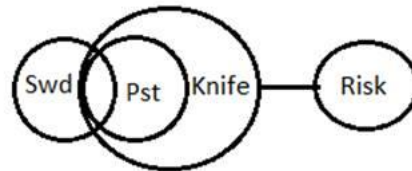
I. Some trail are stain. → It's sure, hence true.

II. Some path are stain. → It's sure, hence true.

Clearly, both I and II follow.

27. Ans. A.

The least possible Venn diagram for the given statements is as follows:



Conclusions:

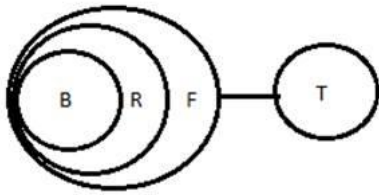
I. No pistol is Risk → It's sure, hence true.

II. Some Sword are not Knife → It's not definite, hence true.

Clearly, only conclusion I follows.

28. Ans. A.

The least possible Venn diagram for the given statements is as follows:



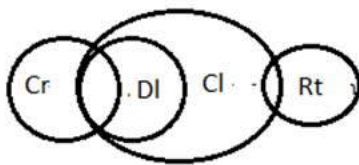
Conclusions:

I. Some feather are ball → It's sure, hence true.

II. Some troll are rat → False
Therefore, conclusion I follows.

29. Ans. B.

The least possible Venn diagram for the given statements is as follows:



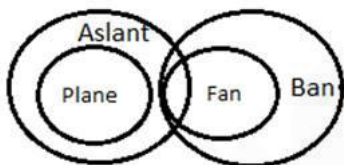
Conclusions:

I. Some doll are route. ___ Not true.

II. Some crow are clove. ___ its true.
Clearly, II follows.

30. Ans. C.

The least possible Venn diagram for the given statements is as follows:

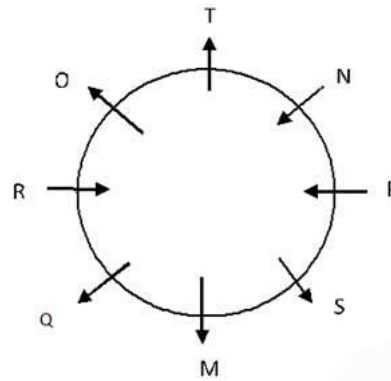


Conclusions:

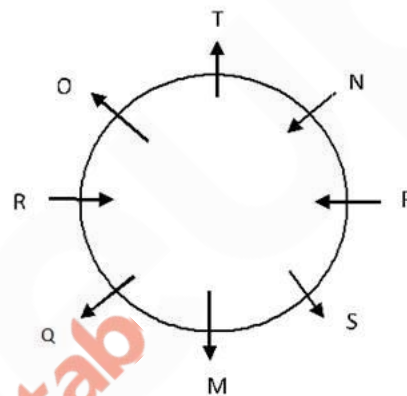
I. All planes being fans is a possibility. → It's possible, hence true.

II. Some bans are planes is a possibility → It's possible, hence true.
Hence, both follow.

31. Ans. B.



32. Ans. A.



33. Ans. B.

We have

$$A < R = F \leq N; C \leq B \geq L > S = N$$

Combining these statements, we have

$$A < R = F \leq N = S < L \leq B \geq C$$

Now, conclusions are:

I. $A \geq L$: False as $A < R = F \leq N = S < L$

II. $S \geq F$: True as $F \leq N = S$

Hence, Only conclusion II follows.

34. Ans. D.

We have

$$Q \geq E \leq A < L; H \leq E \geq M = L$$

Combining these two statements, we have

$$Q \geq E \leq A < L = M \leq E \geq H$$

Now,

I. $L \leq Q$ - false as $Q \geq E \leq A < L$

II. $L < H$ - false as $L = M \leq E \geq H$

None follows.

35. Ans. D.

We have,

$A > F \geq D = R; N < X > J \geq R; S > B \leq V = A$

Combining these statements, we have

$S > B \leq V = A > F \geq D = R \leq J < X > N$

Now,

I. $X > B$ - false as $B \leq V = A > F \geq D = R \leq J < X$

II. $V > J$ - false as $V = A > F \geq D = R \leq J$

Thus, none follows.

36. Ans. E.

Months	Persons
January	V, Y
March	W, Q
June	S, R
September	T, X
October	U, P

37. Ans. C.

Months	Persons
January	V, Y
March	W, Q
June	S, R
September	T, X
October	U, P

38. Ans. B.

Months	Persons
January	V, Y
March	W, Q
June	S, R
September	T, X
October	U, P

39. Ans. B.

Months	Persons
January	V, Y
March	W, Q
June	S, R
September	T, X
October	U, P

40. Ans. C.

Months	Persons
January	V, Y
March	W, Q
June	S, R
September	T, X
October	U, P

41. Ans. D.

• **Data inconsistency** is a condition that occurs between files when similar data is kept in different formats in two different files, or when matching of data must be done between files.

• As a result of the data inconsistency, these files duplicate some data such as addresses and names, compromising data integrity.

42. Ans. A.

A programme that automatically fetches Web pages. Spiders are used to feed pages to search engines. It's called a spider because it crawls over the Web another term for these programmes is Web Crawler.

43. Ans. C.

WAP(Wireless Application Protocol) is a **technical standard** for accessing information over a **mobile** wireless network.

44. Ans. A.

A software **bug** is an error, flaw, failure or fault in a computer program or system that causes it to produce an **incorrect** or unexpected result, or to behave in unintended ways.

45. Ans. A.

Data mining is the computational process of discovering patterns in large data sets involving methods at the intersection of artificial intelligence, machine learning, statistics, and database systems.

Note: The overall goal of the data mining process is to extract information from a data set and

transform it into an understandable structure for further use.

46. Ans. A.

Mainframe computers are computers used primarily by **large organizations** for critical applications, bulk data processing such as census, industry and consumer statistics, enterprise resource planning and transaction processing, etc.

47. Ans. D.

URL is an acronym for **Uniform Resource Locator** and is a reference to a resource on the Internet. A **URL** has **two main** components: **Protocol identifier**: For the URL <https://gradeup.co>, the protocol identifier is http. **Resource name**: For the URL <https://gradeup.co>, the resource name is gradeup.co

48. Ans. B.

- Disk **formatting** is the process of preparing a **data storage device** such as a **hard disk drive**, solid-state drive, **floppy disk** or **USB flash drive** for initial use.
- In some cases, the formatting operation may also create one or more new file systems.

49. Ans. A.

In computer science, thrashing occurs when a computer's virtual memory subsystem is in a constant state of paging, rapidly exchanging data in memory for data on disk, to the exclusion of most application-level processing. This causes the performance of the computer to degrade or collapse.

50. Ans. C.

Information from the **database** is organized in a nice presentation that can be printed in an **Access Report**.

51. Ans. B.

The physical arrangement of elements on a page is referred to as a document's **format**.

Note:- A document file format is a text or binary file format for storing documents on a storage media, especially for use by computers.

52. Ans. A.

Cyberterrorism is the act of Internet terrorism in terrorist activities, including acts of deliberate, large-scale disruption of computer networks, especially of personal computers attached to the Internet, by the means of tools such as computer viruses.

53. Ans. A.

A **password** is the **secret code** that restricts entry to some programs. It is a without spaced sequence of **characters used** to determine that a computer user **requesting access** to a computer system is really that particular user.

54. Ans. A.

In computing, a **hyperlink** is a reference to data that the reader can **directly follow** either by clicking or by hovering.

Note:- A hyperlink points to a whole document or to a specific element within a document. Hypertext is text with hyperlinks.

55. Ans. A.

Cryptography is the science of providing security for information. It has been used historically as a means of providing secure communication between individuals, government agencies and **military forces**. Today, cryptography is a cornerstone of the modern security technologies used to protect information and resources on both open and closed networks.

56. Ans. B.

End user query tool performs data retrievals data analysis and data mining tasks using the data in the

data store and business data analysis models. This component is used by the data analyst to create the queries that access the database.

57. Ans. B.

PDF stands for "**portable document format**". It was introduced to ease the **sharing of documents** between **computers** and across **operating system platforms** when you need to save files that cannot be modified but still need to be **easily shared** and printed.

58. Ans. A.

Normalization is the process of restructuring the logical data model of a database to eliminate redundancy, organize data efficiently and reduce repeating data and to reduce the potential for anomalies during data operations.

59. Ans. B.

Bus Topology is the simplest of **network topologies**. All the nodes are connected to the **single cable** by the help of **interface** connectors. This **central cable** is the backbone of **the network** and is known as **Bus**.

60. Ans. A.

By viewing the properties of the local hard disk of a computer, the user can find out both the used **amount of space** and the remaining **free space** on the disk.

61. Ans. A.

Most alluvial soils are derived from the sediment being deposited by the river Ganga in the Indo-Gangetic plain, ranging from Punjab in the west to West Bengal and Assam in the east, as well as in the coastal areas of northern parts of Gujarat, Narmada, and Tapi valleys, which are formed by sea waves. The alluvial soil found in India, particularly in the Indo-Gangetic plain, is of two types: khaddar (pale brown, sandy clays to loamy, less calcareous and

carbonaceous soil, and found in the low areas of valley that are regularly flooded) and older bhangar soils.

62. Ans. D.

- The government is committed to doubling farmers' income by 2022 and the budget aims to boost the income of people and enhance their purchasing power Union Finance Minister Nirmala Sitharaman announced in Budget 2020.

- Announcing 16 action points plan for farmers, towards the goal of doubling farmers income she said that these measures are underlined by the FM for the agriculture sector.

- Farm markets need to be liberalized, farming need to be made more competitive, handholding of farm-based activities need to be provided, sustainable cropping patterns and more technology needed.

63. Ans. C.

Potato is grown almost in all states of India. However, the major potato growing states are Himachal Pradesh, Punjab, Uttar Pradesh, Madhya Pradesh, Gujarat, Maharashtra, Karnataka, West Bengal, Bihar and Assam.

64. Ans. A.

- Groundnut rosette virus (GRV) is a peanut pathogenic virus found in Sub-Saharan Africa. It is transmitted between plants by insect vectors such as the groundnut aphid (*Aphis craccivora*).

- Rosette is the most destructive disease of groundnut in Africa. The disease is endemic to sub-Saharan Africa and its off-shore islands, including Madagascar.

- Two main forms of the disease, chlorotic rosette and green rosette have been described based on symptoms. The disease is caused by a complex of three agents: groundnut

rosette virus (GRV), and its satellite RNA (sat RNA), and groundnut rosette assistor virus (GRAV). The groundnut aphid, *Aphis craccivora*, is the principal vector of the disease.

65. Ans. B.

- Cotton is the world's most popular natural fiber. The fruit of the plant, better known as the cotton boll, provides the fiber – the fiber of a thousand faces and almost as many uses, the fibers which the ancients called “white gold” because it was so valuable.

66. Ans. A.

Born into a poor family in a tribal-dominated village in Koraput district, Odisha, Kamala Pujari has always been fascinated with traditional paddy seeds. This led to her cultivating paddy in her land so that she could preserve these grains for further germination. Over the years, Kamala has successfully preserved hundreds of indigenous paddies, and has also collected several endangered and rare types of seeds including paddy, turmeric, tili, black cumin, and mahakanta. Often called “preserver of paddy seeds”, Kamala’s efforts were recognised on a national level when President Ram Nath Kovind conferred her with the Padma Shri

67. Ans. A.

- The Pradhan Mantri Kisan Samman Nidhi Yojana (PM-Kisan Yojana) is a government scheme through which, all small and marginal farmers will get up to Rs 6,000 per year as minimum income support.
- The PM Kisan Yojana came into effect from December 1, 2018. It was launched by prime minister Narendra Modi-led government.
- Under the PM Kisan Yojana, income support of Rs 6000 per annum is provided to all eligible farmer families across the country in three equal

installments of Rs 2,000 each every four months. The scheme defines family as husband, wife and minor children. The fund of Rs 2,000 is directly transferred to the bank accounts of the farmers/farmer's family.

68. Ans. A.

- The operating ratio is the percentage which operating expenses absorb out of gross profit. It shows the proportion of total income used in (1) hiring labour (2) buying seeds, fuel and other annual supplies and (3) in keeping equipment in operation, etc.

69. Ans. A.

- The total horticulture production of the country is estimated to be at 314.87 million tonnes which is 1.01 per cent higher than horticulture production in 2017-18.

- The area under horticulture crop also rose to 25.6 million hectare from 25.43 million hectare.

- Under the horticulture crops, production of fruits is estimated to be around 97.38 million tonnes in 2018-19 compared to 97.36 million tonnes in the previous year.

- Vegetables production is estimated to rise 1.6 per cent at around 187.36 million tonnes.

- As per the data, spices Production is estimated to be around 8.61 million tonnes, which is 6.01 per cent higher than 2017-18.

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71. Ans. C.

- Pradhan Mantri Annadata Aay Sanrakshhan Abhiyan (PM-AASHA) is an umbrella scheme aimed at ensuring remunerative prices to the farmers for their produce.

- The new Umbrella Scheme includes the mechanism of ensuring remunerative prices to the farmers and is comprised of:

1. Price Support Scheme (PSS) - In Price Support Scheme (PSS), physical procurement of pulses, oilseeds and Copra will be done by Central Nodal Agencies with proactive role of State governments.

2. Price Deficiency Payment Scheme (PDPS)- Under Price Deficiency Payment Scheme this scheme (PDPS), it is proposed to cover all oilseeds for which MSP is notified. In this direct payment of the difference between the MSP and the selling/modal price will be made to pre-registered farmers selling his produce in the notified market yard through a transparent auction process.

3. Pilot of Private Procurement & Stockist Scheme (PPPS): It has also been decided that participation of private sector in procurement operation needs to be piloted so that on the basis of learnings the ambit of private participation in procurement operations may be increased. Therefore, in addition to PDPS, it has been decided that for oilseeds, states

have the option to roll out Private Procurement Stockist Scheme (PPSS) on pilot basis in selected district/APMC(s) of district involving the participation of private stockiest.

72. Ans. A.

- Balwant Rai Mehta Committee was appointed in 1957, to examine and suggest measures for better working of the Community Development Programme and the National Extension Service. The committee suggested the establishment of a democratic decentralised local government which came to be known as the Panchayati Raj.

- Recommendations by the Committee:

- Three-tier Panchayati Raj system: Gram Panchayat, Panchayat Samiti and Zila Parishad.

- Directly elected representatives to constitute the gram panchayat and indirectly elected representatives to constitute the Panchayat Samiti and Zila Parishad.

- Planning and development are the primary objectives of the Panchayati Raj system.

- Panchayat Samiti should be the executive body and Zila Parishad will act as the advisory and supervisory body.

- District Collector to be made the chairman of the Zila Parishad.

- It also requested for provisioning resources so as to help them discharge their duties and responsibilities.

73. Ans. B.

- The water holding capacity is highest in sandy soil clay soil loamy soil or mixture of sand and Loom, so it is highest in clay soil.

- They have the capacity to retain water. In comparison, the soil has other types of particles that are larger and have a strong drainage quality.

74. Ans. E.

Under the Sub-Mission on Agricultural Mechanization being implemented by the Department of Agriculture, Cooperation & Farmers Welfare, subsidy @ 40% of the project cost limited to a maximum of Rs. 24 lakhs, whichever is less, is extended to the rural entrepreneurs, progressive farmer and self help groups for establishment of farm machinery banks for custom hiring comprising of various agricultural machinery & equipment including combine harvester.

75. Ans. A.

- The Commission for Agricultural Costs & Prices (CACP) in the Ministry of Agriculture would recommend MSPs for 23 crops. These included 14 grown during the kharif/post-monsoon season and six in rabi/winter (wheat, barley, chana, masur, mustard and safflower), apart from sugarcane, jute and copra. The CACP considered various factors while recommending the MSP for a commodity, including cost of cultivation.

- The Budget for 2018-19 announced that MSPs would henceforth be fixed at 1½ times of the production costs for crops as a "pre-determined principle". Simply put, the CACP's job now was only to estimate production costs for a season and recommend the MSPs by applying the 1.5-times formula.

76. Ans. B.

- Catadromous fishes, which spend most of their lives in freshwater and migrate to the sea to reproduce. Catadromy appears to be more prevalent in the tropics, and anadromy more common at higher latitudes.

- Anadromous fishes, including many salmonids, lampreys, shad, and

sturgeon, spend most of their lives in the sea and migrate to freshwater to reproduce.

77. Ans. A.

- Black soil is known as self ploughing soil due to the following reasons:

- It is a clayey soil

- It contains or retains moisture in it

- Comprises of rich nutrients like magnesium and potassium

- It also develops cracks during summer that helps to expose to sunlight and water during monsoon

- It can retain water up to high capacity

- Swells and becomes sticky when wet

- Due to all the above-mentioned reasons, the cultivation and ploughing process for the farmers becomes easy and the crop grows well as compared to the crops on other soil. Black soil is best for growing cotton. Other than cotton sugarcane, wheat, cereals, millets are also cultivated on this black soil.

78. Ans. E.

- In order to give relief to small and marginal farmers who would have to borrow at 9% for the post harvest storage of their produce, the Central Government has approved an interest subvention of 2% i.e an effective interest rate of 7% for loans upto 6 months. Subvention (incentive) for prompt repayment will not be available to the farmers for loans extended against NWRs.

79. Ans. A.

- Deen Dayal Antyodaya Yojana - National Livelihoods Mission (NRLM) was launched by the Ministry of Rural Development (MoRD), Government of India in June 2011 as a restructured version of Swarna Jayanti Gram Swarozgar Yojna (SGSY).

- The Mission aims at creating efficient and effective institutional platforms of the rural poor enabling

them to increase household income through sustainable livelihood enhancements and improved access to financial services. In November 2015, the program was renamed Deendayal Antayodaya Yojana (DAY-NRLM).

- The scheme is integration of the National Urban Livelihoods Mission (NULM) and National Rural Livelihoods Mission (NRLM).

- The scheme has two component one for urban India and other for rural India.

- The Urban component named as Deen Dayal Antyodaya Yojana will be implemented by the Ministry of Housing and Urban Poverty Alleviation.

- The rural component named as Deen Dayal Upadhyaya Grameen Kaushalya Yojana will be implemented by the Ministry of Rural Development.

80. Ans. D.

- To ensure financial inclusion to the last-mile consumers bereft of digital payments or even ATMs at the least, the Reserve Bank of India came up with the Business Correspondents (BC) model in 2006.

81. Ans. D.

- Six states with Karnataka in the lead are the major producers of sunflower in the country. Karnataka with a production of 3.04 lakh tonnes from an area of 7.94 lakh hectares followed by Andhra Pradesh, Maharashtra, Bihar, Orissa and Tamil Nadu are major sunflower producing states of India.

82. Ans. A.

- High winds, low precipitation, high evapotranspiration, reduced vegetable cover and limited development are the main drivers of wind erosion in arid and semi-arid region.

- Rate of wind erosion in the order of arid>semiarid>dry>subhumid area>Humid Area.

83. Ans. A.

- The Mahatma Gandhi National Rural Employment Guarantee Scheme is open to all rural households in the areas notified by the Government of India. The entitlement of 100 days of guaranteed employment in a financial year is in terms of a household. This entitlement of 100 days per year can be shared within the household.

84. Ans. B.

- Carbon dioxide (CO₂) makes up the vast majority of greenhouse gas emissions from the sector, but smaller amounts of methane (CH₄) and nitrous oxide (N₂O) are also emitted. These gases are released during the combustion of fossil fuels, such as coal, oil, and natural gas, to produce electricity.

85. Ans. A.

- Newcastle Disease or Ranikhet disease is a highly contagious (Sudden, Severe and rapidly spreading) viral disease affecting poultry of all ages. Affected species include chickens, turkeys, pigeons and ducks. It causes production drops/fertility problems.

86. Ans. D.

- Layer poultry farming means raising egg laying poultry birds for the purpose of commercial egg production.

- Layer chickens are such a special species of hens, which need to be raised from when they are one day old.

- They start laying eggs commercially from 18-19 weeks of age. They remain laying eggs continuously till their 72-78 weeks of age.

- They can produce about one kg of eggs by consuming about 2.25 kg of food during their egg laying period.

- For the purpose of producing hybrid eggs layer, consider the various characteristics of cock and hen before breeding. There are various types of highly egg productive layer breeds available throughout the world.

87. Ans. B.

- Potassium requirement by the crop in general is greater than nitrogen or phosphorus. For sugar synthesis and its translocation to the storage tissue, potassium is highly important. Potassium gives resistance to sugarcane against pests and disease attack and lodging.

88. Ans. A.

- Culturable Command Area (CCA) of more than 10,000 hectares each are classified as major projects,

- Those having a CCA between 2,000 hectares and 10,000 hectares fall under the category of medium irrigation projects.

- And the projects which have a CCA of less than 2,000 hectares are classified as minor irrigation schemes.

89. Ans. A.

- Sugarcane is among the most efficient crops in the world in converting energy from sunlight into chemical energy that is usable as a fuel source.

90. Ans. C.

- Swasth Dharaa. Khet Haraa is the tagline of the Soil Health Card Scheme.

- Soil Health Card (SHC) is a printed report that a farmer will be handed over for each of his holdings. It will contain the status of his soil with respect to 12 parameters, namely N, P, K (Macro-nutrients); S (Secondary- nutrient); Zn, Fe, Cu, Mn, Bo (Micronutrients); and pH, EC, OC (Physical parameters). Based on this, the SHC will also indicate

fertilizer recommendations and soil amendment required for the farm.

91. Ans. C.

- According to India Meteorological Department (IMD), a rainy day has been defined as a day with rainfall of 2.5 mm or more rainfall.

- IMD further defines that rainfall for a station is called heavy if it is greater than 650 mm and very heavy if it is greater than 1300 mm.

92. Ans. D.

- Trap cropping is the planting of a trap crop to protect the main cash crop from a certain pest or several pests. The trap crop can be from the same or different family group, than that of the main crop, as long as it is more attractive to the pest.

- There are two types of planting the trap crops; perimeter trap cropping and row intercropping. Perimeter trap cropping (border trap cropping) is the planting of trap crop completely surrounding the main cash crop. It prevents a pest attack that comes from all sides of the field. It works best on pests that are found near the borderline of the farm. Row intercropping is the planting of the trap crop in alternating rows within the main crop.

93. Ans. A.

- Chokla also known as Chhappar and Shekhawati is native to the districts of Churu, Nagaur and Sikar in Rajasthan.

- Chokla is perhaps the finest carpet-wool breed, although most Chokla wool is now being diverted to the worsted sector because of a dearth of fine apparel-wool in the country.

94. Ans. D.

- Tamil Nadu has emerged as the topper in coverage of area under micro-irrigation (MI).

- Of about 3.64 lakh hectares brought under MI, Tamil Nadu accounts for

around 1.39 lakh hectares, accounting for 38% of the total coverage in the country, according to the website of the Pradhan Mantri Krishi Sinchayee Yojana (<https://pmksy.gov.in>), a scheme aimed at improving on-farm water use efficiency through a number of measures such as MI.

- Gujarat comes next to Tamil Nadu with a coverage of 77,858 hectares and Andhra Pradesh, 52,027 hectares. Maharashtra comes fourth with around 36,831 hectares and Uttar Pradesh with 25,680 hectares.

95. Ans. A.

- Elephant grass (*Pennisetum purpureum* Schumach.) is a major tropical grass. It is one of the highest yielding tropical grasses. It is a very versatile species that can be grown under a wide range of conditions and systems: dry or wet conditions, smallholder or larger scale agriculture.

96. Ans. B.

- The Forward Markets Commission (FMC) was the chief regulator of commodity futures markets in India.

- On 28 September 2015, the FMC was merged with the Securities and Exchange Board of India (SEBI).

- So now SEBI is the regulator of commodity exchange.

97. Ans. A.

- In India, opium poppy involves lancing and collection of latex from the incised capsule. It is laborious and skilled job requiring considerable manpower to accomplish the task in a short time span. The capsule is the most important organ of the plant as it provides raw opium - a milky exudate.

98. Ans. A.

- A Committee chaired by Dr Ashok Dalwai, was set up at the Ministry of Agriculture and Farmers Welfare,

Government of India, in April 2016 to look into various aspects of growth in farmers' income. The Committee has adopted NCAER as one of the knowledge partners in this work. The Report of the Committee is structured through 14 volumes. The draft versions of the first four volumes of the "Strategy for Doubling Farmers' Income by 2022" have been uploaded on the website of the Department of Agriculture Cooperation & Farmers Welfare.

99. Ans. A.

- A great advantage of crop rotation comes from the interrelationship of nitrogen-fixing crops with nitrogen-demanding crops. Legumes, like alfalfa and clover, collect available nitrogen from the atmosphere and store it in nodules on their root structure.

100. Ans. B.

- When the shoots (primaries) grow in a tea bush after pruning or skiffing, they are tipped or decapitated at a predetermined height parallel to the ground surface. This operation is called "Tipping".

- Essentially the initial few rounds of plucking are called tipping.