## Adda 247



NOTIFICATION DECODED

## INCLUDES

- Vacancies
- Eligibility
- Exam Pattern
- Syllabus
- Previous Year Cut Off
- Memory Based Questions


## Adda 247

## BSSC Inter Level Recruitment 2023: Notification Decoded

Bihar Staff Selection has released the BSSC Inter Level Notification 2023 for a total number of 11098 vacancies. Candidates who are interested \& holds the required eligibility can apply for different posts released from 27th September 2023 onwards. The complete decoding of the official notification is given here in simple terms for the convenience of candidates.

BSSC Inter Level Recruitment 2023: Eligibility Criteria

| Post Name | Educational Qualification |
| :---: | :---: |
| Lower Divisional Clerk (LDC) | (a) 12th Passed in any Stream From a recognized board of India With Computer Knowledge <br> (b) Typing Knowledge - Hindi or English |
| Typist cum Clerk | (a) 12th Passed in any Stream From recognized board of India <br> (b) Stenographer Knowledge. |
| Assistant / Revenue Staff / Panchayat Secretary | (a) 12th Passed in any Stream From recognized board of India |
| Filariasis Inspector | (a) 12th Passed in Science from any recognized board |
| Assistant Instructor (Typing) | (a) 12th Passed in any Stream From recognized board of India With Computer Knowledge <br> (b) Typing Knowledge - Hindi or English |

BSSC Inter Level Recruitment 2023: Age Limit

| Age <br> Category | Minimum <br> Age | Maximum Age <br> (UR) | Maximum Age <br> (BC, EBC) | Maximum Age <br> (SC \& ST) |
| :---: | :---: | :---: | :---: | :---: |
| Male | 18 Years | 37 Years | 40 Years | 42 Years |
| Female | 18 Years | 40 Years | 40 Years | 42 Years |

BSSC Inter Level Recruitment 2023: Post-Wise Vacancy Details

| Post Name | Total Post |
| :---: | :---: |
| Lower Division Clerk | 3927 |
| Filariasis Inspector | 69 |
| Assistant Instructor | 07 |
| Revenue Staff | 3559 |
| Panchayat Secretary | 3532 |
| Typing Cum Clerk | 04 |
| Total Seat | $\mathbf{1 1 , 0 9 8}$ |


| Department and Post Designation | Number of <br> Vacancies |
| :---: | :---: |
| Road Construction Department - Lower Division Clerk (LDC) | 38 |
| Alcohol, Prohibition, Excise and Registration Department - LDC | 340 |
| Home Department (Reserve Branch) - LDC Level - 2 | 19 |
| Home Department (Reserve Branch) Forensic Science Laboratory - LDC Level - 2 | 10 |
| Labor Resources Department - LDC | 20 |
| Minority Welfare Department - LDC | 63 |
| Directorate of Planning and Training (Training Side) and Labor Resources Department |  |
| - LDC | 30 |
| Labor Commissioner Labor Resources Department (Labor Side) - LDC | 239 |
| Health Department - Filariasis Inspector | 54 |
| Cabinet Secretariat (Official Language) Department - Assistant Instructor (Typing) | 69 |
| Directorate General of Civil Defense (Disaster Management Department) - LDC | 41 |
| Revenue and Land Reforms Department - Revenue Staff | 3,559 |
| Panchayati Raj Department - Panchayat Secretary | 3,532 |
| Panchayati Raj Department - LDC | 504 |
| Mines and Geology Department - LDC | 58 |
| Transport Department - LDC | 89 |
| Urban Development and Housing Department - LDC | 2,039 |
| Scheduled Caste/Tribe Welfare Department - LDC | 238 |
| Cabinet Secretariat Department - Clerk with Takank | 04 |
| Animal and Fisheries Resources Department - LDC | 12 |
| Cooperative Department - LDC | 133 |
| Total Number of Vacant Posts | $\mathbf{1 1 , 0 9 8}$ |

## BSSC Inter Level Exam Pattern 2023

## BSSC Inter Level Exam Pattern For Prelims

- There will be 150 Multiple Choice Questions in the BSSC Inter Level Exam 2023.
- For each question, 4 marks will be allotted which in total makes 600 marks for the whole question paper.
- There shall be a negative marking of 1 mark for each incorrect/wrong answer.
- The time period to complete the examination is 2 hours 15 minutes and there is no sectional-timing in the exam.

| Part | Subjects | No. of <br> Questions | Maximum <br> Marks | Duration |
| :---: | :---: | :---: | :---: | :---: |
| Part A | General Studies | 50 | 200 | 2 hours 15 mins |
| Part B | General Science and Mathematics | 50 | 200 |  |
| Part C | Mental Ability Test (Comprehension/ <br> Logic/ Reasoning/ Mental Ability) | 50 | 200 |  |
| Total |  | $\mathbf{1 5 0}$ | $\mathbf{6 0 0}$ |  |

BSSC Inter Level Exam Pattern For Mains

| Papers | Subjects | No. of <br> Questions | Maximum <br> Marks | Duration |
| :---: | :---: | :---: | :---: | :---: |
| Paper 1 | General Awareness/ Hindi language | 100 | 400 | 2 hours 15 mins |
| Paper 2 | Mental ability/logical reasoning, <br> General mathematics/science | 150 | 600 | 2 hours 15 mins |

## Minimum Qualifying Marks for BSSC Inter-Level Exam 2023

The commission also declares the minimum qualifying marks that a candidate needs to obtain to qualify for the further rounds of the selection process. The commission set different minimum qualifying marks for various categories mentioned below:

| Category | Minimum Qualifying Marks |
| :---: | :---: |
| SC/ST | $32 \%$ |
| OBC | $36.5 \%$ |
| EBC | $34 \%$ |
| PwD | $32 \%$ |
| UR | $40 \%$ |
| Women | $32 \%$ |

## BSSC Inter Level Previous Year Cut Off 2019

The cut off of the BSSC Inter Level exam 2019 is provided in the table given below:

| Category | BSSC 1st Inter Level Cut-off |
| :---: | :---: |
| General | 341 |
| OBC | 327 |
| MBC | 285 |
| SC | 237 |
| ST | 189 |
| WBC | 240 |

## Bihar SSC Syllabus 2023 for Inter-Level Exam

To qualify in any exam, the candidates must have to prepare according to the syllabus as notified by the exam conducting authority as this will save their time, and energy, and help to prepare in an appropriate manner. The BSSC Inter Level Syllabus for preliminary examination majorly involves three sections:

- General Studies
- General Science and Mathematics
- Mental Ability Test

The section-wise Bihar SSC Inter Level Syllabus 2023 is discussed below:

| Subjects | Topics |
| :---: | :---: |
| General Studies | - National/International awards <br> - Indian languages <br> - Books, script, capital, currency, <br> - Sports and players <br> - India and its neighboring countries <br> - History of neighboring countries <br> - History of India <br> - Culture <br> - Geography <br> - Economic scenario <br> - Constitution and polity of India <br> - The political system of the country <br> - Contribution of Bihar in Panchayati Raj, five-year plan, and national movement |
| General Science and Mathematics | (i) General Science <br> - Physics <br> - Chemistry <br> - Biology <br> - Geography <br> (ii) Mathematics <br> - Number System <br> - LCM, HCF <br> - Decimal Number <br> - Work \& Time <br> - Simplification <br> - Percentage <br> - Time \& Distance <br> - Ratio \& Proportion <br> - Profit and Loss <br> - Average |
| General <br> Intelligence and Reasoning | - Focus on Comprehension Reasoning <br> - Venn Diagrams <br> - Number Series <br> - Coding and de-coding <br> - Problem-Solving Techniques <br> - Statement \& Conclusion type questions <br> - Arithmetic reasoning <br> - Arithmetical number series <br> - Non-verbal series <br> - Syllogistic reasoning <br> - Seating Arrangements |

Q1. "Jankari" call centers have been opened by which State government?
(a) Goa
(b) Maharashtra
(c) Bihar
(d) More than above
(e) None of the above

Q2. Which Indian state has surpassed America in maize productivity?
(a) Tamil Nadu
(b) Bihar
(c) Andhra Pradesh
(d) More than above
(e) None of the above

Q3. One of the largest frozen semen stations is being constructed at which of the following districts in Bihar?
(a) Purnia
(b) Munger
(c) Patna
(d) More than above
(e) None of the above

Q4. "Karna guru" is an important figure of which tribal society?
(a) Banjara
(b) Bhatudi
(c) Bedia
(d) More than above
(e) None of the above

Q5. "Sumangali" is sung during which social event?
(a) Marriage
(b) Childbirth
(c) Sowing
(d) More than above
(e) None of the above

Q6. In the National Family Health Survey report, which district of Bihar ranks first in child marriage?
(a) Lakhisarai
(b) Begusarai
(c) Gopalganj
(d) More than above
(e) None of the above

Q7. Bihar's first turtle rehabilitation center inaugurated at?
(a) Motihari Forest Division
(b) Gaya Forest Division
(c) Bhagalpur Forest Division
(d) More than above
(e) None of the above

Q8. Which is the first district of Bihar to start advisory committees for panchayats?
(a) Sitamarhi
(b) Siwan
(c) Samastipur
(d) More than above
(e) None of the above

Q9. Indian Railways has announced to build "Goods Terminal" at which place in Bihar?
(a) Banka
(b) Saharsa
(c) Sasaram
(d) More than above
(e) None of the above

Q10. Book titled "Elevation of Life" was authored by?
(a) Tabish Khair
(b) Anurag Anand
(c) Kumar vansi
(d) More than above
(e) None of the above

Q11. Gurdwara Handi Sahib is dedicated to which Sikh Guru?
(a) Guru Teg Bahadur
(b) Guru Nanak Dev
(c) Guru Gobind Singh
(d) More than above
(e) None of the above

Q12. How much percent of seats have been reserved for women in Bihar under Constitution (74th amendment) Act?
(a) $20 \%$
(b) $40 \%$
(c) $10 \%$
(d) More than above
(e) None of the above

Q13. Who was the first independent Chief Minister of Bihar?
(a) Nitish Kumar
(b) Sushil Modi
(c) Jitan Ram Manjhi
(d) More than above
(e) None of the above

Q14. In which year, Saakshar Bharat Mission was started in Bihar?
(a) 2010
(b) 2007
(c) 2005
(d) More than above
(e) None of the above


Q15. From which of the below locations, Punpun, the tributary of Ganges river originates?
(a) Haridwar
(b) Kaimur
(c) Amarkantak
(d) More than above
(e) None of the above

Q16. Who was the Governor-General of India during the revolt of 1857 ?
(a) Earl Cornwallis
(b) Warren Hastings
(c) John Shore
(d) More than above
(e) None of the above

Q17. River Ganges divides Bihar into two unequal halves: North Bihar and South Bihar. What is the region of Bihar spread in the southern part of the river Ganges called?
(a) Magadha Plain
(b) Ganga-Son Doab
(c) Anga Plain
(d) More than above
(e) None of the above

Q18. At which place, the Bihar Youth Conference was held on 2nd December, 1929 under the chairmanship of Pandit Prajapati Mishra?
(a) Gaya
(b) Munger
(c) Patna
(d) More than above
(e) None of the above

Q19. On which river, Triveni canal is built?
(a) Kosi
(b) Ganga
(c) Punpun
(d) More than above
(e) None of the above

Q20. Who is the first engineering graduate to be appointed as a chief minister at least two times?
(a) Shivraj Singh Chauhan
(b) Arvind Kejriwal
(c) Nitish Kumar
(d) More than above
(e) None of the above

Q21. Who among the following leaders joined Subhash Chandra Bose to establish the All India Forward Bloc and also participated in the INA Movement?
(a) Baikuntha Shukla
(b) JP Narayan
(c) Sheel Bhadra Yajee
(d) More than above
(e) None of the above

Q22. Which of the following is not a neighbor state of Bihar?
(a) West Bengal
(b) Uttar Pradesh
(c) Jharkhand
(d) More than above
(e) None of the above

Q23. What is the percentage of scheduled caste in Bihar in terms of total population of the state?
(a) $15.9 \%$
(b) $16.9 \%$
(c) $20 \%$
(d) More than above
(e) None of the above

Q24. Which of the following is the first state to launch a QR code for Seed Tracking?
(a) Uttar Pradesh
(b) Kerala
(c) Bihar
(d) More than above
(e) None of the above

Q25. Who is the author of, "On Point Narendra Modi"?
(a) Sultan Alimuddin
(b) Chetan Bhagat
(c) Shashi Tharoor
(d) More than above
(e) None of the above

Q26. Where the largest frozen semen center in Northern India, is being set up by the Centre?
(a) Purnea
(b) Saran
(c) Patna
(d) More than above
(e) None of the above

Q27. Who was the first British traveller who visited Bihar?
(a) Ralph Fitch
(b) John Marshall
(c) Peter Mundy
(d) More than above
(e) None of the above

Q28. What was the main question in the Congress session of Gaya?
(a) Individual Satyagraha
(b) Salt Satyagraha
(c) Entry of members in the Legislative council
(d) More than above
(e) None of the above

Q29. Who was the founder of the Archaeological Survey of India?
(a) James Prinsep
(b) Alexander Cunningham
(c) Francis Hamilton
(d) More than above
(e) None of the above

Q30. Telhar Waterfall is situated in which district of Bihar?
(a) Sheohar
(b) Kaimur
(c) Siwan
(d) More than above
(e) None of the above

Q31. Which of the following is the main source of information regarding early Turkish activities in Bihar?
(a) Tabaqat-i-Nasiri
(b) Akbarnama
(c) Tazuk-i-Baburi
(d) Vakate-Mustaki
(e) None of the above/More than above

Q32. India' first 12000 Horsepower engine was built at which place in Bihar?
(a) Patna
(b) Madhepura
(c) Gaya
(d) More than above
(e) None of the above

Q33. Bihar Pollution Control Board signs a Memorandum of Agreement with which IIT for air quality management in Bihar?
(a) IIT Madras
(b) IIT Kharagpur
(c) IIT Delhi
(d) More than above
(e) None of the above

Q34. Which district of Bihar tops the list in Inspire Award Standard Scheme?
(a) Patna
(b) Begusarai
(c) Vaishali
(d) More than above
(e) None of the above

Q35. Name the district of Bihar with highest Scheduled Caste population?
(a) Begusarai
(b) Nalanda
(c) Gaya
(d) More than above
(e) None of the above

Q36. "Kusha Tragedy" is related to which of the following?
(a) Black hole
(b) Corruption
(c) Flood
(d) More than above
(e) None of the above

Q37. Which district of Bihar tops the list in Inspire Award Standard Scheme?
(a) Patna
(b) Begusarai
(c) Vaishali
(d) More than above
(e) None of the above

Q38. In which district of Bihar, Sone Eastern Link Canal Hydroelectric Project is located?
(a) Aurangabad
(b) Purnia
(c) Rohtas
(d) More than above
(e) None of the above

Q39. Identify the cuisines of Bihar:

1. Dhuska
2. Pittha
3. Ghugni
4. Litti Chokha

Select the correct option from the codes given below:
(a) Only 1, 2 and 4
(b) Only 2, 3 and 4
(c) Only 1, 3 and 4
(d) More than above
(e) None of the above

Q40. During the reign of Akbar, the Mughal empire was divided into how many Subas?
(a) 10
(b) 11
(c) 12
(d) More than Above
(e) None of the above

Q41. In which year, Bihar Panchayati Raj Act was passed?
(a) 2006
(b) 2003
(c) 1997
(d) More than Above
(e) None of the above

Q42. Which food processing industries are more in numbers in Bihar in comparison to other industries given?
(a) Sugarcane
(b) Wheat
(c) Maize
(d) More than Above
(e) None of the above


Q43. Which state is the leading producer of Litchi?
(a) Uttar Pradesh
(b) Bihar
(c) Haryana
(d) More than Above
(e) None of the above

Q44. Who was the writer of "Ritambhara"?
(a) Kedar Nath Mishra 'Prabhat'
(b) Ramdhari Singh Dinkar
(c) Vidyapati
(d) More than Above
(e) None of the above

Q45. In which scripture, it is mentioned that the King of Videha gave away gold coins and cows as gift?
(a) Taittiriya Upanishad
(b) Mandukya Upanishad
(c) Brihadaranyaka Upanishad
(d) More than Above
(e) None of the above

Q46. When did the rail transport start in Bihar?
(a) 1880
(b) 1952
(c) 1860
(d) More than Above
(e) None of the above

Q47. Where is the branch of Xavier Fire Safety Academy located in Bihar?
(a) Siwan
(b) Darbhanga
(c) Patna
(d) More than Above
(e) None of the above

Q48. Shivalik hill is located in West Champaran district. Which of these rocks is dominant in the Shivalik hills?
(a) Metamorphic rocks
(b) Sedimentary rocks
(c) Extrusive Igneous rocks
(d) More than Above
(e) None of the above

Q49. Jat-Jatin is the art from of which state?
(a) Madhya Pradesh
(b) Haryana
(c) Bihar
(d) More than Above
(e) None of the above

Q50. Which dance form of Bihar is related to the mythical story of Bhakt Prahlad and his demon father Hiranyakashipu?
(a) Fagua
(b) Sohar-Khilona
(c) Kajari
(d) More than Above
(e) None of the above

Q51. Paralympic Pramod Bhagat of Vaishali district won which medal in Tokyo Paralympics?
(a) Gold
(b) Silver
(c) Bronze
(d) More than Above
(e) None of the above

Q52. In which state Rohtasgarh Fort is loacted?
(a) Uttar Pradesh
(b) Madhya Pradesh
(c) Rajasthan
(d) More than Above
(e) None of the above

Q53. Bihar's second planetarium is proposed to be opened in?
(a) Patna
(b) Darbhanga
(c) West Champaran
(d) More than Above
(e) None of the above

Q54. First fish feed mill of Bihar was set up in which district of Bihar?
(a) Patna
(b) Gaya
(c) Munger
(d) More than Above
(e) None of the above

Q55. Chandragupta Maurya embraced Jainism after renouncing his throne. What was the name of the Jain Monk whom he followed?
(a) Nigrodha
(b) Bhadrabahu
(c) Mahavira
(d) More than Above
(e) None of the above

Q56. Which clan established World's first republic in Vaishali?
(a) Sakyas
(b) Mallas
(c) Licchavi
(d) More than Above
(e) None of the above

Q57. In which town/city of Bihar, National Institute of Electronic and Information Technology will be established?
(a) Gaya
(b) Munger
(c) Bihta
(d) More than Above
(e) None of the above

Q58. Which of the following sources of irrigation have irrigated maximum area in Bihar according to the Agricultural census (2010-11)?
(a) Canal
(b) Ponds
(c) Tube wells
(d) More than Above
(e) None of the above

Q59. Which was the first English newspaper of Bihar?
(a) The Bihar Herald
(b) The Bihar Times
(c) The Bihar
(d) More than Above
(e) None of the above

Q60. In which language Mahuaa TV and Purva TV telecast their Programmes?
(a) Hindi
(b) English
(c) Urdu
(d) More than Above
(e) None of the above

Q61. Which schedule was added to the Constitution by the 73rd Constitutional Amendment?
(a) 5 th
(b) 12 th
(c) 9th
(d) More than Above
(e) None of the above

Q62. Barauni Oil Refinery Factory is the first oil refinery factory of Bihar. Which one of the following oil fields has been connected to Barauni Oil Refinery factory through pipeline?
(a) Mumbai High field
(b) Panna-Mukta Oil field
(c) Aishwarya Oil fields
(d) More than Above
(e) None of the above

Q63. At which place, "Dhruva Dal" was founded by the Youth of Bihar to counter the British Rule?
(a) Siwan
(b) Danapur
(c) Katihar
(d) More than Above
(e) None of the above

Q64. River Kamla enters Bihar from which district?
(a) Munger
(b) Madhubani
(c) Madhepura
(d) More than Above
(e) None of the above

Q65. In the last few years there has been a Sectoral change in Bihar's economy. This change has been in favor of which sector?
(a) Primary Sector
(b) Agriculture Sector
(c) Tertiary Sector
(d) More than Above
(e) None of the above

Q66. In which High court of India, for the first time a studio court was established?
(a) Telangana
(b) Allahabad
(c) Patna
(d) More than Above
(e) None of the above

Q67. A Fishery Research Centre has been established at which place-
(a) Sonepur
(b) Fatuha
(c) Mithapur
(d) More than above
(e) None of the above

Q68. Both Gautama Buddha and Mahavira died during the reign of -
(a) Bimbisara
(b) Kalashoka
(c) Dhanananda
(d) More than above
(e) None of the above

Q69. Which of the following rulers made Pataliputra the capital of Magadha for the first time?
(a) Kalashoka
(b) Ajatashatru
(c) Udayin
(d) More than above
(e) None of the above

Q70. In which five year plan was Barauni Oil Refinery in Bihar established?
(a) Third
(b) Second
(c) Fifth
(d) More than above
(e) None of the above

Q71. The marketing of dairy products in Bihar is done by which of the following organization?
(a) KVIC
(b) COMFED
(c) BIADA
(d) More than above
(e) None of the above

Q72. The yarn produced under Mukhya Mantri Kosi Mulberry Scheme will be marketed under the brand name of -
(a) Koshiki
(b) Mulberry Silk
(c) Resham
(d) More than above
(e) None of the above

Q73. The first Jain council was held during the reign of -
(a) Chandragupta Maurya
(b) Ajatashatru
(c) Ashoka
(d) More than above
(e) None of the above

Q74. Who was the President of third Buddhist Council?
(a) Maha Kassapa
(b) Sabakmir
(c) Moggaliputta Tissa
(d) More than above
(e) None of the above

Q75. Who was the founder of Ajivika sect?
(a) Ajita Keshakambalin
(b) Makkhali Gosala
(c) Pakudha Kaccayana
(d) More than above
(e) None of the above

Q76. In which year, National Mission on Medicinal Plant was celebrated for the first time in Bihar?
(a) 2006
(b) 2007
(c) 2008
(d) More than Above
(e) None of the above

Q77. Parman Dolphin Sanctuary is located in which district of Bihar?
(a) Munger
(b) Katihar
(c) Araria
(d) More than Above
(e) None of the above

Q78. India' first 12000 Horsepower engine was built at which place in Bihar?
(a) Patna
(b) Madhepura
(c) Gaya
(d) More than Above
(e) None of the above

Q79. Which of the following gave Sher Shah Suri the title of Sher Khan for his bravery?
(a) Malik Mohammad Jaysi
(b) Bahar Khan Lohani
(c) Islam Shah
(d) More than Above
(e) None of the above

Q80. Who was the last independent king of Anga?
(a) Lomapada
(b) Dhatarattha
(c) Dhadivahana
(d) More than Above
(e) None of the above

Q81. Who composed Allahabad Prashasti?
(a) Vidyapati
(b) Kalidasa
(c) Harisena
(d) More than Above
(e) None of the above

Q82. Who founded the Bihar School of Yoga (Munger)?
(a) Sri BNS Iyengar
(b) Swami Satyanad Saraswati
(c) Brahmakumari Shivani
(d) More than Above
(e) None of the above

Q83. In which district of Bihar, Ghaghara river enters after passing through Nepal?
(a) Gaya
(b) Patna
(c) Munger
(d) More than Above
(e) None of the above

Q84. The lecture of "Magic Lantern" was related with which Revolutionary movement?
(a) Non-Cooperation Movement
(b) Civil Disobedience Movement
(c) Revolt of 1857
(d) More than Above
(e) None of the above

Q85. Who is credited with the beginning and development of Imperialism in ancient India?
(a) Avanti
(b) Magadha
(c) Chola
(d) More than Above
(e) None of the above

Q86. Who was the founder of Kanva Dynasty?
(a) Narayana
(b) Bhumimitra
(c) Vasudeva
(d) More than Above
(e) None of the above

Q87. Vulture Peak is located in which of the following in Bihar?
(a) Gaya
(b) Bodh Gaya
(c) Rajgir
(d) More than Above
(e) None of the above

Q88. Which of the following was not an element of the "Saptanga theory" of Kautilya?
(a) Swamin
(b) Amatya
(c) Janapada
(d) More than Above
(e) None of the above

Q89. In which district, Anupam lake is located?
(a) Kaimur
(b) Bhagalpur
(c) Munger
(d) More than Above
(e) None of the above

Q90. In which District of Bihar, Kosi Hydroelectric Project is located?
(a) Rohtas
(b) Supaul
(c) Saharsa
(d) More than Above
(e) None of the above

Q91. What was the old name of Bihar Sharif?
(a) Pataliputra
(b) Magadha
(c) Chirand
(d) More than Above
(e) None of the above

Q92. Waterfalls in Bihar are basically found in
$\qquad$ district of border plateau area?
(a) Rohtash
(b) Kaimur
(c) Gaya
(d) More than Above
(e) None of the above

Q93. Mahananda River enters Bihar from which district?
(a) Gaya
(b) Darbhanga
(c) Buxar
(d) More than Above
(e) None of the above

Q94. The local chiefs of village assemblies in the Magadha empire were known as_?
(a) Pradhan
(b) Gramakas
(c) Gram sevak
(d) More than Above
(e) None of the above

Q95. In which city/town of Bihar, Diesel locomotive factory project has been started?
(a) Patna
(b) Marhowrah
(c) Munger
(d) More than Above
(e) None of the above

Q96. Which state is India's most flood-prone state?
(a) Uttar Pradesh
(b) West Bengal
(c) Maharashtra
(d) More than Above
(e) None of the above

Q97. Which of the following is/ are other names of Punpun river in Bihar?

1. Keekat
2. Bamagadhi
3. Falgu

Select the correct option from the codes given below:
(a) Only 1
(b) Only 1 \& 2
(c) Only 2 \& 3
(d) More than Above
(e) None of the above

Q98. In which year, "Shauchalaya Nirman Ghar ka Samman Yojna" was launched in Bihar?
(a) 2014
(b) 2019
(c) 2012
(d) More than Above
(e) None of the above

Q99. In which district of Bihar, Gopashtami fair is organised?
(a) Patna
(b) Gaya
(c) Khagaria
(d) More than Above
(e) None of the above

Q100. In which city/town of Bihar, Diesel locomotive factory project has been started?
(a) Patna
(b) Marhowrah
(c) Munger
(d) More than Above
(e) None of the above


## S1. Ans.(c)

Sol. Under Right to Information, the call centers are opened as an easy access complaint cells. Jankari call centers have been awarded gold medal for egovernance by Ministry of Personnel.

## S2. Ans.(b)

Sol. The productivity of maize has reached 50 quintals per acre in 7 maize producing districts of Bihar. In terms of total production Tamil Nadu is the largest producer in the country and Bihar is the second largest.

## S3. Ans.(a)

Sol. One of the largest frozen semen stations is being constructed with a production capacity of 50 lakh frozen semen straws per annum in Purnea, which would prove to be a boon to the farmers of the state

## S4. Ans.(b)

Sol. A karna guru is an important figure of Bhatudi tribal group. Karna guru is a Vaishnav guru who initiates all the important proceedings of the society such as marriage, education.

## S5. Ans.(a)

Sol. The marriage ceremony holds an important place among the ceremonies prescribed by both shastras and folklore. The ceremony lasting for several days is important for folk-songs.

## S6. Ans.(a)

Sol. marriages before the age of 21 among males in age group of $25-29$ has decreased to $30.5 \%$ from 35.3\%.

## S7. Ans. (c)

Sol. In January 2020, a first-of-its-kind rehabilitation centre for freshwater turtles was inaugurated in Bihar's Bhagalpur forest division. The rehab centre spread over half a hectare. it can shelter 500 turtles at a time.

## S8. Ans.(e)

Sol. Sheohar is the first district Bihar, where term of elected representatives of three-tier panchayats ended. In Sheohar, "advisory committees of threetier panchayats" took over the charge of Gram Panchayat, Gram Kachari, Panchayat Samiti and Zilla Parishad.

## S9. Ans.(b)

Sol. Indian Railway has announced to build a "cargo terminal" or "Goods terminal" at Baijnathpur in Saharsa district of Bihar. Station will be built in PPP mode. Goods will be shipped by freight train at the Goods Terminal. Booked items will also be sent from here. It is connected to all three places in Saharsa, Supaul and Madhepura districts.

## S10. Ans.(b)

Sol. Elevation of Life Book has been authored by Anurag Anand from Bihar. He is a teenage author. He was recognized as a national holder by 'India Book or Records' and continent record holder 'Asia Book of Records', for being the "Youngest author to write four forms of writing in a book".

## S11. Ans.(a)

Sol. This Gurdwara was built in memory of Guru Teg Bahadur as Guru Teg Bahadur along with Mata Gujri and Bala Preetam stayed here. Guru Teg Bahadur returned to Punjab while leaving his family behind at Patna.

## S12. Ans.(d)

Sol. 50\% seats have been reserved for women in Bihar. Reservation of seats for women have been provided under 74th Constitutional Amendment Act of 1992.

## S13. Ans.(e)

Sol. Mahamaya Prasad Sinha was the first independent Chief Minister of Bihar. He was the fifth Chief Minister of Bihar. HIs tenure was from March 1967 to January 1968 . His tenure was the tenure of first non congress Government in Bihar.

## S14. Ans.(a)

Sol. Saakshar Bharat Mission is the centrally sponsored nation-wide literacy scheme of the Indian Department for School Education and Literacy (DSEL) which focuses on increasing women's literacy in India. It was launched in India by the prime minister on International Literacy Day in September 2009.

## S15. Ans.(e)

Sol. Punpun River originates from the Chorha Hill of Palamu. Palamu is a district in Jharkhand and It was formed in 1892.

## S16. Ans.(e)

Sol. Lord Canning was the Governor-General of India during the revolt of 1857. He was a British statesman. He became the first Viceroy of India after the transfer of power from the East India Company to the Crown of Queen Victoria in 1858 after the rebellion was crushed.

## S17. Ans.(d)

Sol. The region of Bihar spread in the southern part of the river Ganges are called Ganga-Son Doab, Magadha plain and Anga plain. The southern Ganges plain of Bihar is made up of alluvial soil brought by the hills and rivers originating from the plateau in the south

## S18. Ans.(b)

Sol. Bihar Youth Conference was held on 2nd December, 1929. It was organised in Munger. Pandit Prajapati Mishra was made its chairman.

## S19. Ans.(e)

Sol Triveni canal is built on Gandak river. Under this project, a 740 m long barrage has been built on Gandak river near Triveni Ghat. It covers the regions of Nepal, Bihar and Uttar Pradesh. In Bihar, It covers districts like Champaran, Saran, Chhapra, Muzaffarpur, Darbhanga, Siwan and Vaishali.

## S20. Ans.(c)

Sol. Nitish Kumar is the first engineering graduate to be appointed as a chief minister atleast two times. He completed his Btech in Mechanical engineering from College of Engineering, Patna. He was associated with Bihar State Electricity Board.

## S21. Ans.(c)

Sol. Sheel Bhadra Yajee joined Subhash Chandra Bose to establish the All India Forward Bloc and also participated in the INA Movement.All India Forward Bloc was founded in 1939. He was actively associated with INA Movement. Sheel Bhadra Yajee was an activist from Bihar who was associated with the non-violent and the violent form of the Indian Independence Movement.

## S22. Ans.(e)

Sol. In the north Bihar is bounded by Nepal, in the south by Jharkhand, in the east by West Bengal and in the west by Uttar Pradesh

## S23. Ans.(a)

Sol. Schedules castes of Bihar are $15.9 \%$ of total population of the state.

## S24. Ans.(c)

Sol. Bihar became the first state in the country to launch a QR Code for seeds. The entire lineage of the seed will be revealed as soon as the code is scanned. The minute details such as germination percentage, date of sowing, moisture content and transporter and packaging will also be available on scanning.

## S25. Ans.(a)

Sol. Sultan Alimuddin wrote, "On Point Narendra Modi"

S26. Ans.(a)
Sol. Under Rashtriya Gokul Mission, a frozen semen center with $100 \%$ assistance from Centre is being set up in Purnea, Bihar. This will be the largest in entire northern India.
Rashtriya Gokul Mission was started in 2014 to conserve indigenous breeds

## S27. Ans.(a)

Sol. Ralph Fitch was the first British traveller who visited Bihar. He visited Bihar in 1587. Ralph Fitch was a gentleman merchant of London and one of the earliest English travellers and traders who visited Mesopotamia, the Persian Gulf and Indian Ocean, India and Southeast Asia.

## S28. Ans.(c)

Sol. He main question in the Congress session of Gaya was about Entry of members in the Legislative council. Gaya session was held in 1922. C.R. Das was the president. After this session, Swaraj Party was formed as the prominent leaders like CR Das broke away from Indian National Congress.

## S29. Ans. (b)

Sol. Alexander Cunningham was the founder of the Archaeological Survey of India. It was founded in 1861. Cunningham became its first DirectorGeneral. The Archaeological Survey of India (ASI) is an Indian government agency attached to the Ministry of Culture that is responsible for archaeological research and the conservation and preservation of cultural monuments in the country.

## S30. Ans.(b)

Sol. Telhar Waterfall is situated in Kaimur District of Bihar.

## S31. Ans.(a)

Sol. Tabaqat-i-Nasiri was written by Minhaj-i-Siraj in Persian, it gave an elaborate history of Islamic world and the foundation of Muslim rule in India.

## S32. Ans.(b)

Sol. With the help of French company Alstom, India's first 12000 HP was built at Madhepura factory, Bihar.

## S33. Ans.(c)

Sol. Bihar Pollution Control Board signs a MoA with IIT Delhi to manage air quality in Bihar. IIT Delhi will help the State in setting up a comprehensive architecture for scientific analysis and monitoring of air pollution.

## S34. Ans.(c)

Sol. Vaishali tops the list in inspiring innovation.

## S35. Ans.(c)

Sol. Gaya district of Bihar has the highest scheduled caste population in the state.

## S36. Ans.(c)

Sol. Kusha tragedy is related to one of the mostMost of Northern Bihar was affected by this disastrous flood and one can feel its aftermaths even today. catastrophic flood in the history of Bihar.

## S37. Ans.(c)

Sol. Vaishali tops the list in inspiring innovation.

## S38. Ans.(a)

Sol. Sone Eastern Link Canal Hydroelectric Project is located in Barun, Aurangabad.
It was commissioned in the year 1996-97.
S39. Ans.(d)
Sol. Dhuska -Its batter is made by grinding soaked chana dal and rice with green chillies and garlic. Pittha - Small sized dumplings made of rice flour, stuffed with chana dal(Bengal gram) paste and steamed.

## S40. Ans.(c)

Sol. During the reign of Akbar, the Mughal empire was divided into twelve subas or provinces. These were Allahabad, Agra, Awadh, Ajmer, Ahmedabad, Bihar, Bengal, Delhi, Kabul, Lahore, Malwa, and Multan.

## S41. Ans.(a)

Sol. Bihar Panchayati Raj Act was passed in 2006. Along with this act, $73^{\text {rd }}$ Constitutional Amendment Act, 1992 of the Indian Constitution was also passed.

## S42. Ans.(e)

Sol. Rice food processing industries are more in numbers in Bihar.

## S43. Ans.(b)

Sol. Litchi (Litchi chinensis) is most liked and relished fruit of India. The total production of litchi is concentrated mainly in Bihar, West Bengal, Assam and Jharkhand and to a smaller extent in Tripura, Punjab, Uttarakhand and Odisha. Bihar is the leading producer of Litchi. Bihar accounts for 41 $\%$ of the total litchi production in India. Bihar is an agriculture-based state and has a leading role in food production in India

## S44. Ans.(a)

Sol. Kedar Nath Mishra 'Prabhat'

## S45. Ans.(c)

Sol. According to Brihadaranyaka Upanishad, the King of Videha used to give gold coins and cows as gift. The Brihadaranyaka Upanishad is one of the Principal Upanishads and one of the first Upanishadic scriptures of Hinduism.

## S46. Ans.(c)

Sol. The rail transport started in Bihar in 1860. The Rail services were started by the East Indian Railway and a train ran between Howrah and Rajmahal.

## S47. Ans.(c)

Sol. The branch of Xavier Fire Safety Academy located in Patna. Xavier Fire Safety is a private and Non-govt company and is registered at Registrar of Companies, Patna. It was incorporated on 26 October 1999.

## S48. Ans.(b)

Sol. Sedimentary rocks are dominant in the Shivalik hill which is located in West Champaran district of Bihar. The Shivalik range is the lower part of the Shivalik range of the Himalaya Mountains.

## S49. Ans.(c)

Sol. Bihar
S50. Ans.(a)
Sol. Fagua
S51. Ans.(a)
Sol. Gold

## S52. Ans.(e)

Sol. None of the above.

## S53. Ans.(b)

Sol. Darbhanga

## S54. Ans.(a)

Sol. Pradhan Mantri Matsya Sampada Yojana (PMMSY) for Bihar accounts for an investment of Rs 1390 crore with Central Share of Rs 535 crore

S55. Ans.(b)
Sol. Chandragupta Maurya was a disciple of the Jain monk Bhadrabahu. Chandragupta Maurya embraced Jainism after retiring, when he renounced his throne and material possessions to join a wandering group of Jain monks. It is said that in his last days, he observed the rigorous but selfpurifying Jain ritual of santhara (fast unto death), at Shravanabelagola in Karnataka

## S56. Ans.(c)

Sol. Licchavi clan established world's first republic in Vaishali. Licchavi clan existed in the Kathmandu Valley in modern-day Nepal from approximately 400 to 750 CE

## S57. Ans.(c)

Sol. Bihta National Institute of Electronic and Information Technology (NIELIT) will be established in Bihta which is a fast growing township in Patna district of Bihar.

S58. Ans.(c)
Sol. Tube wells

## S59. Ans.(a)

Sol. The Bihar Herald was the first English newspaper of Bihar. It was published by Guruprashad Sen. The publication was started in 1875.

## S60. Ans.(e)

Sol. Mahuaa TV and Purva TV telecast their Programmes in Bhojpuri language.
These channels were launched in 2008.

## S61. Ans.(e)

Sol. 11th schedule was added to the Constitution by the 73rd Constitutional Amendment. It was added in 1992 by the 73rd Constitution Amendment Act. This schedule contains 29 subjects. This schedule covers important topics such as Panchayat's powers, rural development, poverty alleviation, market, roads and drinking water etc.

## S62. Ans.(e)

Sol. Naharkatiya Oil field

S63. Ans.(c)
Sol. Katihar

## S64. Ans.(b)

Sol. Madhubani

S65. Ans.(c)
Sol. The share of Primary, Secondary and Tertiary sector in the GSVA was 21.3 percent, 19.7 percent and 59.0 percent, respectively.

## S66. Ans.(c)

Sol. Patna High Court has devised a system of Studio Court on an experimental basis. The whole processing will take place in virtual mode.

S67. Ans.(c)
Sol. Mithapur
S68. Ans. (e)
Sol. None of the above

S69. Ans.(c)
Sol. Udayin

S70. Ans.(a)
Sol. Third

S71. Ans.(b)
Sol. COMFED
S72. Ans.(a)
Sol. Koshiki

S73. Ans.(a)
Sol. Chandragupta Maurya

## S74. Ans.(c)

Sol. Moggaliputta Tissa

## S75. Ans.(b)

Sol. Makkhali Gosala

## S76. Ans.(c)

Sol. National Mission on Medicinal Plant in Bihar was celebrated for the first time in 2008.

## S77. Ans.(c)

Sol. Parman Dolphin Sanctuary is located in the Araria district in the state of Bihar.

S78. Ans.(b)
Sol. With the help of French company Alstom, India's first 12000 HP was built at Madhepura factory, Bihar

## S79. Ans.(b)

Sol. Sher Shah Suri was the son of Hasan Khan who was a jagirdar of Sasaram in South Bihar (Jaunpur). Sher Shah Suri served under the Afghan governor of Bihar named Bahar Khan Lohani, who gave him the title Sher Khan for his bravery as he killed a tiger.

S80. Ans.(a)
Sol. Brahmadatta was the last independent king of Anga.

## S81. Ans.(c)

Sol. Allahabad Prashasti is one of his most famous poem. He wrote in 345 C.E. Allahabad Prashasti describes the bravery of Samudragupta and is inscribed on the Allahabad Pillar. Allahabad Prashasti is written in Sanskrit language.

S82. Ans.(b)
Sol. Swami Satyanad Saraswati

## S83. Ans.(e)

Sol. Ghaghara river originates in the southern slopes of the Himalayas in Tibet, in the glaciers of Mapchachungo. It passes through Nepal and then flows southeast through Uttar Pradesh and Bihar to join the Ganga. In Bihar, It enters the Chapra district firstly.

## S84. Ans.(b)

Sol. The lecture of "Magic Lantern" was related with Civil Disobedience Movement. The lecture was organised in Muzaffarpur District. It was organised against the British authorities. The event was organized to create enthusiasm in Satyagrahis at Muzaffarpur

## S85. Ans.(b)

Sol. Magadha empire is credited with the beginning and development of Imperialism in ancient India. Magadha was one of the sixteen mahajanapadas.It was ruled by the Pradyota dynasty, Barhadratha dynasty, Haryanka dynasty, and the Shaishunaga dynasty.

## S86. Ans.(c)

Sol. Vasudeva was the founder of Kanva Dynasty. He was the minister of the last Shunga ruler, Devabhuti. He killed Devabhuti and established Kanva dynasty. Vasudeva was one of the famous patrons of arts.

## S87. Ans.(c)

Sol. The Vulture Peak was the Buddha's favorite retreat in Rajgir. It was the venue for many of Buddha's discourses and is named so because it resembles a sitting vulture with its wings folded.

## S88. Ans.(e)

Sol. None of the above.

## S89. Ans.(a)

Sol. Anupam lake is located in Kaimur District, It is situated in the Kaimur Wildlife Sanctuary.

## S90. Ans.(d)

Sol. More than Above, Saharsa \& Supaul.

## S91. Ans.(e)

Sol. (Odantapuri) The old name of Bihar Sharif was Odantapuri. It was founded by the first ruler of the Pala dynasty, Gopala in the 7 th century CE. It was a buddhist centre of learning in ancient times. Odantapuri served as a model and inspiration for Tibetan Buddhists.

## S92. Ans.(d)

## S93. Ans. (e)

Sol. The River Mahananda originates from Sikkim and enters into the state of Bihar from Purnia.

## S94. Ans.(b)

Sol. Magadha was one of the sixteen Mahajanapadas. The Magadha kingdom included
republican communities such as the community of Rajakumara. Their administrations were divided into executive, judicial, and military functions. Villages had their own assemblies. The local chiefs of village assemblies were called Gramakas.

## S95. Ans.(b)

Sol. Diesel locomotive factory project has been started in Marhowra. Marhowra lies in Saran District. The Diesel locomotive project is a joint venture of General Electric of the US with Indian Railways for the production of 1000 high-power freight locomotives over a period of 10 years designed to run on Indian railway tracks.

## S96. Ans.(e)

Sol. [Bihar] Bihar is India's most flood-prone state. The people of Bihar suffer from recurring floods and more than $76 \%$ of the population of North Bihar lives under the recurring threat of flood devastation.

## S97. Ans.(b)

Sol. Punpun river is also known as Keekat \& Bamagadhi. Punpun River is a tributary of the Ganga. It flows through the districts of Bihar and Jharkhand. It originates in Palamu district of Jharkhand and flows through Chatra, Aurangabad, Gaya and Patna. The river mostly flows in a northeast direction.

S98. Ans.(e)
Sol. [2016] "Shauchalaya Nirman Ghar ka Sammaan Yojna" was lauched in Bihar in 2016.The scheme was launched with an objective to end the evil practice of outdoor defecation by the year 2019According to the scheme, the state government would provide a financial support to each household to build an indoor toilet.

## S99. Ans.(c)

Sol. Gopashtami fair is organised in Khagariya district. It is held on the occasion of Gopashtami.Gopashtami festival is dedicated to Lord Krishna and cows. The festival is celebrated on the eighth day in the bright half of Karthik month.

## S100. Ans.(b)

## BSSC Inter Level Memory Based Questions: Reasoning

Q1. Two statements are given followed by three conclusions numbered I, II, and III Assuming the statements to be true, even if they seen to be at variance with Commonly known facts. Decide which of conclusion logically follow(s) from the statement.

## Statement:

Some dogs are cats.
All Deer are dogs.

## Conclusion;

I. No deer is cat
II. Some cats are deer.
III. Some deer are dogs.
(a) only I follow.
(b) only II, III follows.
(c) all I, II and III follows.
(d) only conclusion III follow.

## Q2. Statement:

Some mobiles are instruments
All instruments are electric item.

## Conclusion:

I. All mobile are electric item.
II. Some electric items are mobile.
III. Some electric item as are not instrument.
(a) only I, II conclusion follow.
(b) only II, III follows.
(c) All Conclusion follows.
(d) only II follows.


Q3. Two rotated positions of dice are given which number will be at the top if ' 4 ' is at the bottom?

(a) 1
(b) 2
(c) 3
(d) 5

Q4. Arrange the following words in a logical and meaningful order.

1. Salary
2. Recruitment
3. Education
4. Promotion
5. School
6. Employment
(a) $5,3,2,6,4,1$
(b) $5,3,6,2,1,4$
(c) $5,3,2,6,1,4$
(d) $3,5,4,2,6,1$

Q5. Find the number of triangles in given fig.

(a) 15
(b) 24
(c) 21
(d) 19

Q6. Find the missing in the given figure.

| 2 | 16 | 4 |
| :---: | :---: | :---: |
| 3 | 54 | 6 |
| 3 | $?$ | 5 |

(a) 54
(b) 45
(c) 30
(d) 75

Q7. Three of the following four words are alike in a certain way and one is different pick the odd one out.
(a) iris
(b) pupil
(c) Stapes
(d) Cornea

Q8. Three of the following four-word pair are alike in a certain way and one is difference pick odd one out.
(a) Malaysia : Ringgit
(b) Russia : Ruble
(c) Uganda : Rand
(d) Japan : Yan

Q9. $P$ is father of $Q$ and $R$ is the son of $S$. $T$ is the brother of P. Q is sister of R. How is S Related to T.
(a) Brother - in - law
(b) Daughter
(c) Sister - in - law
(d) Brother

Q10. Select the venn diagram that best illustrates the Relationship between the following classes. Parliament, Vidhan Shabha, Rajay Shabha.
(a)

(b)

(c)


Q11. In the following question, select the related word pair from the given alternatives.
Hexagon: Six : :? :?
(a) Triangle : Two
(b) Square : Five
(c) Rectangle : Four
(d) Pentagon : Four

Q12. In the following question, select the related number pair from the given alternatives.
41:66: :?:?
(a) $29: 54$
(b) $32: 59$
(c) $31: 54$
(d) $33: 59$

Q13. In the following question, select the related letter/letters from the given alternatives.
CPW : BOV : : KQH :?
(a) JPG
(b) LRI
(c) LRJ
(d) JQG

Q14. In the following question, select the odd word from the given alternatives.
(a) Sunday
(b) Thursday
(c) Monday
(d) June

Q15. In the following question, four number pairs are given. The number on left side of $(-)$ is related to the number on the right side of ( - ) with some Logic/Rule/Relation. Three are similar on basis of same Logic/Rule/Relation. Select the odd one out from the
(a) 17-51
(b) 19-57
(c) 13-37
(d) 23-69

Q16. In the following question, select the related word pair from the given alternatives.
Editor : Newspaper : :? :?
(a) Farmer : Sell
(b) Wall : Mason
(c) Chef : Knife
(d) Poet: Poem

Q17. In the following question, select the related number from the given alternatives.
52:57::46:?
(a) 53
(b) 49
(c) 55
(d) 51

Q18. In the following question, select the related letter/letters from the given alternatives.
CEG: IKM : : FHJ :?
(a) LNP
(b) KMO
(c) LNO
(d) KMN

Q19. In the following question, select the odd word pair from the given alternatives.
(a) Sister - Female
(b) Male - Father
(c) Brother - Male
(d) Grandmother - Female

Q20. In the following question, four number pairs are given. The number on left side of $(-)$ is related to the number on the right side of $(-)$ with some Logic/Rule/Relation. Three are similar on basis of same Logic/Rule/Relation. Select the odd one out from the given options.
(a) 14-28
(b) 16-32
(c) 18-36
(d) 12-34

Q21. Which of the following terms follows the trend of the given list?
ABABACCB, ABABCCAB, ABACCBAB, ABCCABAB, ACCBABAB, $\qquad$ .
(a) ABABABCC
(b) CCABABAB
(c) ABABACCB
(d) ABABCCAB

Q22. A woman while shopping in a mall pushes her trolley 20 metres through an alley which is going East, then she turns to her left and walks 30 metres, then she turns West and walks another 30 metres, then she turns South and walks 30 metres and then
she turns West and walks 25 metres. Where is she now with reference to her starting position?
(a) 35 metres West
(b) 5 metres West
(c) 35 metres East
(d) 5 metres East

Q23. In the question two statements are given, followed by two conclusions, I and II. You have to consider the statements to be true even if it seems to be at variance from commonly known facts. You have to decide which of the given conclusions, if any, follows from the given statements.
Statement I: No clocks are watches
Statement II: No ornaments are clocks
Conclusion I: Some watches are ornaments
Conclusion II: All ornaments are watches
(a) Only conclusion I follows
(b) Only conclusion II follows
(c) Both conclusions I and II follow
(d) Neither conclusion I nor conclusion II follows

Q24. In the following figure, rectangle represents Plumbers, circle represents Essayists, triangle represents Divers and square represents Asians. Which set of letters represents Asians who are Essayists?

(a) EDB
(b) IED
(c) ED
(d) FED

Q25. A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.
TAP, WDS, ZGV,?, FMB
(a) DJZ
(b) CIY
(c) CJY
(d) DKZ

Q26. In the following question, select the missing number from the given series.
$46,45,43,42,40,39$,?
(a) 35
(b) 36
(c) 38
(d) 37

Q27. In the following question, four groups of three numbers are given. In each group the second and third number are related to the first number by a Logic/Rule/Relation. Three are similar on basis of same Logic/Rule/Relation. Select the odd one out from the given alternatives.
(a) $(11,13,15)$
(b) $(15,17,19)$
(c) $(21,23,25)$
(d) $(25,2731)$

Q28. If a mirror is placed on the line $M N$, then which of the answer figures is the right image of the given figure?

(a)

(b)

(c)

(d)


Q29. Which of the following cube in the answer figure cannot be made based on the unfolded cube in the question figure?

(a)

(b)

(c)

(d)


Q30. In a certain code language, "TRUMP" is written as " 46321 " and "GRAIN" is written as " 76598 ". How is "GRUNT" written in that code language?
(a) 23684
(b) 23847
(c) 67834
(d) 76384

Q31. In the following question, select the odd letter/letters from the given alternatives.
(a) GEC
(b) NLJ
(c) OMK
(d) YWN

Q32. Arrange the given words in the sequence in which they occur in the dictionary.

1. Clump
2. Clown
3. Climax
4. Clumsy
5. Climb
(a) 32541
(b) 41523
(c) 35214
(d) 45213

Q33. In the following question, select the missing number from the given series.
$2,3,4,9,16,29,54$,?
(a) 109
(b) 99
(c) 87
(d) 117

Q34. A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.
E, I, M,?, U, Y
(a) Q
(b) R
(c) T
(d) S

Q35. Present age of $R$ and $S$ are in the ratio of $3: 2$ respectively. If the present age of H is 117 years and R's present age is $4 / 13$ of H's present age, then after how many years the ages of $R$ and $S$ would be in the ratio of $15: 11$ ?
(a) 9
(b) 6
(c) 7
(d) 8

Q36. From the given alternatives, select the word which CANNOT be formed using the letters of the given word.
Represhensible
(a) Repair
(b) Hen
(c) Rise
(d) Ripe

Q37. In a certain code language, "FUMIC" is written as "6211393" and "STEAM" is written as "19205113". How is "PROP" written in that code language?
(a) 714812
(b) 6159134
(c) 16181516
(d) 1271418

Q38. In a certain code language, ' $x$ ' represents ' + ', ' - represents ' $x$ ', '-' represents ' $\div$ ' and '+' represents '-'. Find out the answer to the following question.
$20 \div 12-30+10 \times 10=$ ?
(a) 8
(b) 25
(c) 14
(d) 21

Q39. The following equation is incorrect. Which two signs should be interchanged to correct the equation?
$32 \div 16-5 \times 8+2=13$
(a) + and $\div$
(b) + and $x$
(c) - and +
(d) $\div$ and $x$

Q40. If 6@16=11,2@14=8 and 8@8=8, then find the value of $10 @ 18=$ ?
(a) 4
(b) 6
(c) 12
(d) 14


Q41. In the following figure, rectangle represents coppersmiths, circle represents bakers, triangle represents gamers and square represents Fathers. Which set of letters represents coppersmiths who are neither gamers nor bakers?

(a) BAF
(b) CG
(c) CDG
(d) A

Q42. A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.
SAY, TDD, UGI, VJN,?
(a) WMR
(b) WMS
(c) WNR
(d) WNS

Q43. In the following question, select the missing number from the given series.
$46,41,35,30, ?, 19,13$
(a) 26
(b) 24
(c) 28
(d) 22

Q44. In the following question, four groups of three numbers are given. In each group the second and third number are related to the first number by a Logic/Rule/Relation. Three are similar on basis of same Logic/Rule/Relation. Select the odd one out from the given alternatives.
(a) $(8,17,33)$
(b) $(11,23,45)$
(c) $(13,27,51)$
(d) $(17,35,69)$

Q45. If a mirror is placed on the line MN , then which of the answer figures is the right image of the given figure?

(b)

(c)

(d)


Q46. Which of the following cube in the answer figure cannot be made based on the unfolded cube in the question figure?

(a)

(b)

(c)

(d)


Q47. In the following question, select the related word pair from the given alternatives.
Seconds: Time : :? :?
(a) Angle : Pascal
(b) Length : Metre
(c) Area : Volume
(d) Ohm : Resistance

Q48. In the following question, select the related number from the given alternatives.
11:16: :?:?
(a) $14: 16$
(b) $15: 22$
(c) $7: 14$
(d) $13: 18$

Q49. In the following question, select the related letter pair from the given alternatives.
AUR: CXV : :? :?
(a) RFT : SGU
(b) GEM : IHQ
(c) HSO : GRN
(d) KGA : NIE

Q50. In the following question, select the odd word from the given alternatives.
(a) Rat
(b) Cat
(c) Fish
(d) Cow

Q51. In the following question, select the odd letter/letters from the given alternatives.
(a) HFD
(b) SQO
(c) ZXV
(d) BZU

Q52. Arrange the given words in the sequence in which they occur in the dictionary.

1. Brides
2. Boastful
3. Blizzard
4. Biology
5. Brilliant
(a) 15234
(b) 54321
(c) 43215
(d) 32145

Q53. In the following question, select the missing number from the given series.
$12,15,19,24,30$,?
(a) 38
(b) 37
(c) 39
(d) 40

Q54. A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.
A, D, H, M,?
(a) R
(b) $S$
(c) Q
(d) T

Q55. In a row, there are 8 girls between Aruna and Bimla and Aruna being the first girl in row. There are 5 girls between Bimla and Chetna. If there are 14 girls after Chetna, then how many minimum girls are there in the row?
(a) 13
(b) 15
(c) 18
(d) 16

Q56. From the given alternatives, select the word which CANNOT be formed using the letters of the given word.
Precious
(a) Pire
(b) Rise
(c) Rose
(d) Rest

Q57. In the following question, select the related number pair from the given alternatives.
31: 42 : :?:?
(a) $53: 64$
(b) $47: 59$
(c) $61: 73$
(d) $44: 34$

Q58. In the following question, select the related letter/letters from the given alternatives.
FUT : JYX : : BUG :?
(a) AYG
(b) FYK
(c) LCK
(d) FAM

Q59. In the following question, select the odd word from the given alternatives.
(a) Ocean
(b) Sea
(c) Desert
(d) River

Q60. In the following question, four number pairs are given. The number on left side of $(-)$ is related to the number of the right side of $(-)$ with some Logic/Rule/Relation. Three are similar on basis of same Logic/Rule/Relation. Select the odd one out from the given alternatives.
(a) 101-105
(b) 103-107
(c) 102-106
(d) 104-106

Q61. Which of the following terms follows the trend of the given list?
QPPPPPP, QQPPPPP, QQQPPPP, QQQQPPP,
QQQQQPP, $\qquad$ .
(a) QQQQQQP
(b) PPPPPPP
(c) QPPPPPP
(d) QQPPPPP

Q62. A pilot takes off and flies 35 km West then, it turns South and flies 15 km , then it turns to its left and flies 20 km , then it turns north and flies 15 km . Where is the plane now with respect to its starting position?
(a) 55 km West
(b) 15 km East
(c) 15 km West
(d) 55 km East

Q63. In the question two statements are given, followed by two conclusions, I and II. You have to consider the statements to be true even if it seems to be at variance from commonly known facts. You have to decide which of the given conclusions, if any, follows from the given statements.
Statement I: No rings are bangles
Statement II: All gold are rings
Conclusion I: No bangles are gold
Conclusion II: Some rings are gold
(a) Only conclusion I follows
(b) Only conclusion II follows
(c) Both conclusions I and II follow
(d) Neither conclusion I nor conclusion II follows

Q64. In the following figure, rectangle represents Dentists, circle represents Bloggers, triangle represents Comedians and square represents Boxers. Which set of letters represents Dentists who are either Bloggers or Comedians?

(a) LKCB
(b) GLKC
(c) FEC
(d) K

Q65. A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.
ANT, CPV, ERX,?, IVB
(a) GTZ
(b) FSY
(c) GTY
(d) FSZ

Q66. In the following question, select the missing number from the given series.
$43,44,46,47,49,50$,?
(a) 54
(b) 53
(c) 51
(d) 52

Q67. In a certain code language, "RINKS" is written as "SKOMT". How is "FRIED" written in that code language?
(a) PQGHJ
(b) HUKHD
(c) KOTGJ
(d) GTJGE

Q68. In a certain code language, ' $x$ ' represents ' + ', ' $\div$ ' represents ' $\times$ ', '-' represents ' $\div$ ' and '+' represents '-'.
Find out the answer to the following question.
$5 \div 4-10+7 \times 16=$ ?
(a) 50
(b) 5
(c) 9
(d) 11

Q69. The following equation is incorrect. Which two signs should be interchanged to correct the equation?
$18 \times 12-3 \div 10+2=64$
(a) + and $x$
(b) + and $\div$
(c) - and $\div$
(d) - and +

Q70. If $9 \# 3=120,3 \# 4=70$ and $2 \# 9=110$, then find the value of $5 \# 2=$ ?
(a) 40
(b) 50
(c) 70
(d) 80

Q71. Which of the following terms follows the trend of the given list?
CCABABAB, ACCBABAB, ABCCABAB, ABACCBAB, ABABCCAB, $\qquad$ .
(a) ABABABCC
(b) CCABABAB
(c) ABABACCB
(d) ACCBABAB

Q72. A leopard is chasing a prey. The leopard runs 2 km South, then turns West and runs 2.5 km , then turns North and runs 1.5 km , then it turns to its right and runs 2.5 km . Where is it now with respect to the starting position?
(a) 3.5 km South
(b) 0.5 km North
(c) 0.5 km South
(d) 3.5 km North

Q73. In the question two statements are given, followed by two conclusions, I and II. You have to consider the statements to be true even if it seems to be at variance from commonly known facts. You have to decide which of the given conclusions, if any, follows from the given statements.
Statement I: No medals are trophies
Statement II: No badges are medals
Conclusion I: All trophies are badges
Conclusion II: Some badges are trophies
(a) Only conclusion I follows
(b) Only conclusion II follows
(c) Both conclusions I and II follow
(d) Neither conclusion I nor conclusion II follows

Q74. In the following figure, rectangle represents Actors, circle represents Curators, triangle represents Poets and square represents Fathers. Which set of letters represents Poets who are not Fathers?

(a) BI
(b) FE
(c) HB
(d) DC

Q75. A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.
VXK, QSF, LNA, GIV,?
(a) DFS
(b) ACP
(c) CER
(d) BDQ

Q76. In the following question, select the missing number from the given series.
$15,22,31,42,55$,?
(a) 60
(b) 68
(c) 70
(d) 74

Q77. In the following question, four groups of three numbers are given. In each group the second and third number are related to the first number by a Logic/Rule/Relation. Three are similar on basis of same Logic/Rule/Relation. Select the odd one out from the given alternatives.
(a) $(14,42,59)$
(b) $(15,45,61)$
(c) $(13,39,53)$
(d) $(12,36,49)$

Q78. If a mirror is placed on the line MN , then which of the answer figures is the right image of the given figure?

(a)

(b)

(c)

(d)


Q79. Which of the following cube in the answer figure cannot be made based on the unfolded cube in the question figure?

(a)

(b)

(c)

(d)


Q80. In the following question, select the related word pair from the given alternatives.
Pyramid : Figure : :? :?
(a) Cone : Triangle
(b) Figure : Prism
(c) Square : Four
(d) Sphere : Figure

Q81. In the following question, select the odd letter/letters from the given alternatives.
(a) LFZ
(b) PJC
(c) SMG
(d) XRL

Q82. Arrange the given words in the sequence in which they occur in the dictionary.

1. Lighten
2. Liftoff
3. Lemonade
4. Leisure
5. Ladies
(a) 32451
(b) 21345
(c) 13245
(d) 54321

Q83. In the following question, select the missing number from the given series. $23,24,26,27,29$,?
(a) 31
(b) 30
(c) 33
(d) 32

Q84. A series is given with one term missing. Select the correct alternative from the given ones that will complete the series. PCM, REO, TGQ, VIS,?
(a) XKU
(b) WLV
(c) XLV
(d) WKU

Q85. The ratio of the present ages of Reena and her husband is $4: 5.8$ years from now, ages of her husband and her son will be in the ratio $24: 9$. If the present age of Reena is 32 years, then what will be her son's present age (in years)?
(a) 12
(b) 15
(c) 10
(d) 8

Q86. From the given alternatives, select the word which CANNOT be formed using the letters of the given word.
Preparation
(a) Paper
(b) Ration
(c) Part
(d) People

Q87. In a certain code language, "PROP" is written as " 67 " and "RATE" is written as " 46 ". How is "MOCK" written in that code language?
(a) 41
(b) 40
(c) 42
(d) 44

Q88. In a certain code language, '-' represents ' $x$ ', ' $-\quad$ ' represents ' + ', ' + ' represents ' $\div$ ' and 'x' represents '-
'. Find out the answer to the following question. 35
$-12+10 \times 50 \div 14=$ ?
(a) 31
(b) 6
(c) 27
(d) 15

Q89. The following equation is incorrect. Which two signs should be interchanged to correct the equation?
$16 \div 4 \times 8-10+14=12$
(a) $x$ and -
(b) $\div$ and $x$
(c) $\div$ and -
(d) - and +

Q90. If $19!3=32,13!4=18$ and $12!2=20$, then find the value of $17!3=$ ?
(a) 16
(b) 28
(c) 4
(d) 8

Q91. Which of the following terms follows the trend of the given list?
YXYXYXZYX, YXYXYZXYX, YXYXZYXYX, YXYZXYXYX, YXZYXYXYX, $\qquad$ —.
(a) ZYXYXYXYX
(b) YXYXYXZYX
(c) YZXYXYXYX
(d) YXYXYZXYX

Q92. Two rugby players start running from the same place on the pitch. Player A runs 20 m South, then turns to his left and runs 26 m . In the meanwhile Player B runs 12 m West, then he runs 6 m South, the he turns to his left and runs 38 m . Where is Player A with respect to Player B?
(a) 26 m South
(b) 14 m South
(c) 14 m North
(d) 26 m North

Q93. In the question two statements are given, followed by two conclusions, I and II. You have to consider the statements to be true even if it seems to be at variance from commonly known facts. You have to decide which of the given conclusions, if any, follows from the given statements. Statement I: Some notes are coins
Statement II: All notes are currency
Conclusion I: No coins are currency
Conclusion II: Some currency are coins
(a) Only conclusion I follows
(b) Only conclusion II follows
(c) Both conclusions I and II follow
(d) Neither conclusion I nor conclusion II follows

Q94. In the following figure rectangle, represents designers, circle represents lyricists, triangle represents Comedians and square represents Americans. Which set of letters represents Fashion designers who are lyricists?

(a) EI
(b) FE
(c) GH
(d) FG

Q95. A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.
CAL, AWF, YSZ, WOT,?
(a) UJO
(b) VKP
(c) UKN
(d) VJP

Q96. In the following question, select the missing number from the given series.
$470,465,460,455, ?, 445$
(a) 450
(b) 448
(c) 440
(d) 452

Q97. In the following question, four groups of three numbers are given. In each group the second and third number are related to the first number by a Logic/Rule/Relation. Three are similar on basis of same Logic/Rule/Relation. Select the odd one out from the given alternatives.
(a) $(104,101,96)$
(b) $(109,106,101)$
(c) $(97,94,89)$
(d) $(121,118,111)$

Q98. If a mirror is placed on the line MN , then which of the answer figure is the right image of the given figure?

(a)

(b)

(c)

(d)


Q99. Which of the following cube in the answer figure cannot be made based on the unfolded cube in the question figure?

(b)

(c)

(d)


Q100. In the following question, four number pairs are given. The number on left side of $(-)$ is related to the number of the right side of $(-)$ with some Logic/Rule/Relation. Three are similar on basis of same Logic/Rule/Relation. Select the odd one out from the given alternatives.
(a) 31.33
(b) 33.35
(c) 37.39
(d) 35.39


## SOLUTIONS

## S1. Ans.(d)

Sol.


S2. Ans.(b)
Sol.


## S3. Ans.(a)

Sol.

$$
\begin{aligned}
& 2 \rightarrow 5 \rightarrow 1 \\
& 2 \rightarrow 3 \rightarrow 4
\end{aligned}
$$

## S4. Ans.(c)

Sol. School $\rightarrow$ Education $\rightarrow$ Recruitment $\rightarrow$ Employment $\rightarrow$ Salary $\rightarrow$ promotion.

## S5. Ans.(b)

Sol. 24

## S6. Ans.(b)

## Sol.

$$
\begin{aligned}
& 2^{2} \times 4=16 \\
& 3^{2} \times 6=54 \\
& 3^{2} \times 5=45
\end{aligned}
$$

S7. Ans. (c)
Sol. Stapes is part of ear other all are part of eye.

## S8. Ans.(c)

Sol. Uganda's currency is shilling.
Rand is currency of South Africa.
S9. Ans.(c)
Sol.


S10. Ans.(c)
Sol.

## S11. Ans.(c)

Sol. A hexagon has six sides Similarly a rectangle has 4 sides.

S12. Ans.(a)
Sol. +25 pattern

S13. Ans.(a)
Sol. -1 pattern
S14. Ans.(d)
Sol. except option (d) all are days of a week.
S15. Ans.(c)
Sol. $\times 3$ pattern
S16. Ans.(d)
Sol. As editor is related to newspaper similarly poet is related to poem.

S17. Ans.(d)
Sol. +5 pattern
S18. Ans.(a)
Sol. $+6,+6,+6$ pattern

## S19. Ans.(b)

Sol. Correct format should be father - Male

## S20. Ans.(d)

Sol. $\times 2$ pattern except option (d)
S21. Ans.(b)
Sol. CCABABAB
S22. Ans.(a)
Sol.


She is now 35 m in west direction from her starting point.

S23. Ans.(d)
Sol.

I. $\times$ II. $\times$

Neither conclusion I nor conclusion II follows.

S24. Ans.(c)
Sol. ED
S25. Ans.(c)
Sol. +3 series
S26. Ans.(d)
Sol.


S27. Ans.(d)
Sol. +2 series except $(25,27,31)$

## S28. Ans.(b)

S29. Ans.(c)
Sol. Opposite faces are


Option (c) cannot be formed.
S30. Ans.(d)
Sol.

| T | R | U | M | P | G | A | I | N |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4 | 6 | 3 | 2 | 1 | 7 | 5 | 9 | 8 |

GRUNT $\rightarrow 76384$

S31. Ans.(d)
Sol.
Except YWN, rest all three are -2 series

## S32. Ans.(c)

Sol.
$\begin{array}{ccccc}\text { Climax } & \text { Climb } & \text { Clown } & \text { Clump } & \text { Clumsy } \\ 3 & 5 & 2 & 1 & 4\end{array}$

## S33. Ans.(b)

Sol.

$$
\begin{aligned}
& 9=2+3+4,16=3+4+9 \\
& 29=4+9+16, \quad 54=9+16+29
\end{aligned}
$$

S34. Ans.(a)
Sol. +4 series

S35. Ans.(a)

## Sol.

R's present age $=\frac{4}{13} \times 117=36$ yrs $=3 \mathrm{x}$
$\Rightarrow \mathrm{x}=12$
$\therefore$ S's present age $=12 \times 2=24 \mathrm{yrs}$
Let the required years be $x$
$\therefore$ ATQ,
$\frac{36+x}{24+x}=\frac{15}{11} \Rightarrow x=9$

## S36. Ans.(a)

Sol. Repair because there is no a in the given word
S37. Ans.(c)
Sol. Number represents the position of corresponding alphabets.
P R O P $\rightarrow 16181516$

## S38. Ans.(a)

## Sol.

$$
\begin{aligned}
& 20 \div 12-30+10 \times 10 \\
& \downarrow \\
& 20 \times 12 \div 30-10+10 \\
& =8
\end{aligned}
$$

## S39. Ans.(b)

## Sol.

$32 \div 16-5 \times 8+2=13$
Interchanging + and $\times$
$32 \div 16-5+8 \times 2=2-5+16=13$

S40. Ans.(d)
Sol.
$\frac{6+16}{2}=11, \frac{2+14}{2}=8, \frac{8+8}{2}=8$
$\therefore \frac{10+18}{2}=14$

## S41. Ans.(d)

Sol. A

## S42. Ans.(b)

Sol. $+1,+3,+5$ series

S43. Ans.(b)
Sol.


S44. Ans.(c)
Sol.
$\underline{\mathbf{8}} \times 2=16 ; 16+1=\underline{\mathbf{1 7}} ; \quad 17 \times 2=34-1=\underline{\mathbf{3 3}}$
$\underline{11} \times 2=22 ; 22+1=\underline{23} ; \quad 23 \times 2=46=46-1=\underline{45}$
$\underline{17} \times 2=34 ; 34+1=\underline{35} ; \quad 35 \times 2=70=70-1=\underline{69}$
$\underline{13} \times 2=26 ; 26+1=\underline{27} ; \quad 27 \times 2=54=54-1=\underline{53} \neq 51$

S45. Ans.(a)
S46. Ans.(b)
Sol.
Opposite face are:-


Option (b) cannot be formed

## S47. Ans.(d)

Sol. Second is the unit of time
Ohm is the unit of resistance

## S48. Ans.(d)

Sol. +5 series

S49. Ans.(b)
Sol. $+2,+3,+4$ series

## S50. Ans.(c)

Sol. Fish is an aquatic animal

## S51. Ans.(d)

Sol. - 2 series except BZU.

S52. Ans.(c)
Sol. 4. Biology
3. Blizzard
2. Boastful

1. Brides
2. Brilliant

S53. Ans(b)
Sol. $+3,+4,+5 \ldots .$.

## S54. Ans.(b)

Sol.


## S55. Ans.(c)

Sol.


S56. Ans. (d)
Sol. Rest
S57. Ans.(a)
Sol. +11 series
S58. Ans.(b)
Sol. +4 series
S59. Ans.(c)
Sol. Except Desert, rest are water bodies
S60. Ans.(d)
Sol. +4, except (104-106)
S61. Ans.(a)
Sol. QQQQQQP
S62. Ans.(c)
Sol.

$\therefore$ Plane is at a distance of 15 km towards west from the starting point.

S63. Ans.(c)
Sol.


Both conclusion I and II follows.

S64. Ans.(b)
Sol. GLKC

## S65. Ans.(a)

S66. Ans.(d)
Sol. +1, +2 series.

## S67. Ans.(d)

Sol. +1, +2, +1, +2, +1, series

S68. Ans.(d)
Sol.
$5 \div 4-10+7 \times 16$
$\Rightarrow 5 \times 4 \div 10-7+16$
$\Rightarrow 5 \times \frac{4}{10}-7+16$
$\Rightarrow 2-7+16$
$\Rightarrow 11$

## S69. Ans.(c)

Sol.
$18 \times 12-3 \div 10+2=64$
$\Rightarrow 18 \times 12 \div 3-10+2=64$
$\Rightarrow 72-10+2=64$
$\Rightarrow 64=64$

S70. Ans.(c)
Sol.
$(9+3) \times 10=120$
$(3+4) \times 10=70$
$(2+9) \times 10=110$
$(5+2) \times 10=70$

S71. Ans.(c)
Sol. ABABACCB

S72. Ans.(c)
Sol.
We have
$\mathrm{AB}=0.5 \mathrm{~km}$ south


## S73. Ans.(d)

Sol. Neither conclusion I nor Conclusion II follows


S74. Ans.(b)
Sol. FE
S75. Ans.(d)
Sol. - 5,-5,-5 pattern
S76. Ans. (c)
Sol. $+7,+9,+11,+13,+15$ pattern
$\therefore 55+15=70$
S77. Ans.(a)
Sol.
$(\times 1, \times 3, \times 4+1)$ pattern except option (a)
S78. Ans.(d)
S79. Ans.(a)

## S80. Ans.(d)

Sol. As pyramid is figure similarly sphere is a figure, all other options are irrelevant.

## S81. Ans.(b)

Sol. - 6 pattern except option (b)

S82. Ans.(d)
Sol. Ladies, Leisure, Lemonade, Liftoff, Lighten
S83. Ans.(b)
Sol.


S84. Ans.(a)
Sol. + 2 series

S85. Ans.(c)
Sol.
Present age of her husband $=\frac{32}{4} \times 5=40 \mathrm{yrs}$
Age of her son after $8 \mathrm{yrs}=\frac{48}{24} \times 9=18 \mathrm{yrs}$
Present age of her son $=10 \mathrm{yrs}$

S86. Ans.(d)
Sol. People
S87. Ans.(d)
Sol. PROP $=16+18+15+16=65+2=67$
RATE $=18+1+20+5=44+2=46$
MOCK $=13+15+3+11=42+2=44$
S88. Ans.(b)
Sol. $35-12+10 \times 50 \div 14$
$=35 \times 12 \div 10-50+14$
$=42-50+14=6$

S89. Ans.(b)
Sol. $16 \div 4 \times 8-10+14=12$
Interchanging $\div \& \times$
$16 \times 4 \div 8-10+14$
$=8-10+14=12$

S90. Ans.(b)
Sol. 19!3 $=(19-3) \times 2=32$
$13!4=(13-4) \times 2=18$
$12!2=(12-2) \times 2=20$
$\therefore 17!3=(17-3) \times 2=28$

S91. Ans.(c)
Sol. YZXYXYXYX

S92. Ans.(b)
Sol.

$A$ is 14 m south with respect to $B$.
S93. Ans.(b)
Sol.


Only conclusion II follows

## S94. Ans.(b)

Sol. FE

## S95. Ans.(c)

Sol. -2, -4, -6 series

## S96. Ans.(a)

Sol. -5 series
S97. Ans.(d)
Sol. $-3,-5$ series except $(121,118,111)$

S98. Ans.(d)

S99. Ans.(c)
Sol. Opposite faces are


Option (c) cannot be formed.
S100. Ans.(d)
Sol. +2 series except (35-39)


## BSSC Inter Level Memory Based Questions: General Studies

Q1. Who was the President of the Indian National Congress at the time of the Partition of India?
(a) Rajagopalachari
(b) Jawaharlal Nehru
(c) J. B. Kriplani
(d) Maulana Abul Kalam Azad

Q2. In the human system, insulin regulates the metabolism of?
(a) fat
(b) Carbohydrate
(c) Protein
(d) nucleic acid

Q3. Which of the following is the outermost part of human skin?
(a) Epidermis
(b) Dermis
(c) Hypodermis
(d) None of these

Q4. Who among the following is the author of the book Unhappy India?
(a) Dadabhai Naoroji
(b) Bhagwati Charan Vohra
(c) Sachindra Nath Sanyal
(d) Lala Lajpat Rai

Q5. Monazite is the ore of?
(a) Magnesium
(b) sodium
(c) Thorium
(d) Radium

Q6. Which is the oldest organism on earth?
(a) Blue-green algae
(b) Euglena
(c) amoeba
(d) fungus

Q7. Which of the following movement started with Dandi Yatra?
(a) Quit India Movement
(b) Civil Disobedience Movement
(c) Home Rule Movement
(d) Non-Cooperation Movement

Q8. What is gunpowder made of?
(a) nitrate of potassium and sodium
(b) sulfate of potassium and magnesium
(c) Charcoal, sulfur, and potassium nitrate
(d) Potassium sulfate and charcoal

Q9. Which is the first country to approve a vaccine for the Omicron version of COVID?
(a) America
(b) UK
(c) Japan
(d) China

Q10. Which Viceroy was considered the 'Father of Civil Service'?
(a) Lord William Bentinck
(b) Lord Dalhousie
(c) Lord Cornwallis
(d) Lord Hardinge

Q11. Which of the following is the outermost part of human skin?
(a) Epidermis
(b) Dermis
(c) hypodermis
(d) none of these

Q12. Who started the newspaper National Herald?
(a) Motilal Nehru
(b) Jawaharlal Nehru
(c) Rahul Gandhi
(d) Indira Gandhi

Q13. Which of the following happens in the oxidation process?
(a) increase in electron
(b) increase in protons
(c) there is a loss of electrons
(d) there is a reduction in protons

Q14. Where did Madam Cama hoist the first tricolor flag in 1907?
(a) London
(b) Paris
(c) Moscow
(d) Stuttgart

Q15. The unit of potential difference is -
(a) ampere
(b) volt
(c) Coulomb
(d) 0 m

Q16. Which of the following movement started with Dandi Yatra?
(a) Home Rule Movement
(b) Quit India Movement
(c) Civil Disobedience Movement
(d) Non-Cooperation Movement

Q17. Which of the following is a coral island in India?
(a) Lakshadweep
(b) the Andaman Islands
(c) Nicobar Island
(d) none of these

Q18. Who among the following was the political mentor of Mahatma Gandhi?
(a) Chittaranjan Das
(b) MG Ranade
(c) Gopal Krishna Gokhale
(d) Swami Vivekananda

Q19. Which of the following falls is situated on the Sharavati river?
(a) Jog Falls
(b) Shivasamudram Falls
(c) Dhundhar Falls
(d) Dudhsagar Falls

Q20. Which Viceroy was considered the Father of Civil Service?
(a) Lord William Bentinck
(b) Lord Cornwallis
(c) Lord Dalhousie
(d) Lord Hardinge

Q21. Who won the Miss India USA title in August 2022?
(a) Arya Walvekar
(b) Suman Agarwal
(c) Soumya Sharma
(d) Nikita Sen

Q22. When was Pitts India Act passed by the British Parliament?
(a) 1764
(b) 1784
(c) 1785
(d) 1772

Q23. Who is the author of the book Tomb of Sand?
(a) Malala Yousafzai
(b) Salman Rushdie
(c) Gitanjali Shree
(d) JK Rowling

Q24. Who gave the concept of The Hindu rate of development?
(a) RC Ranga
(b) Mahatma Gandhi
(c) Dadabhai Naoroji
(d) Raj Krishna

Q25. In which of the following organ is hydrochloric acid secreted?
(a) liver
(b) Pancreas
(c) stomach
(d) bowel

Q26. Panchayati Raj Day is celebrated on which date?
(a) 24 April
(b) 16 April
(c) 25 January
(d) 26 March

Q27. Which union ministry has launched the SMILE-75 initiative?
(a) Women and Child Welfare
(b) Ministry of Housing and Urban Affairs
(c) Ministry of Social Justice and Empowerment
(d) Ministry of Tourism

Q28. Which Article of the Indian Constitution provides for the protection of the interests of minorities?
(a) Article 29
(b) Article 31
(c) Article 121
(d) Article 258

Q29. What are the most toxic substances released when plastic is reused?
(a) Ethyl mercaptan
(b) Dioxins
(c) Potassium cyanide
(d) ammonia

Q30. Who among the following was $a$ contemporary of Genghis Khan?
(a) Iltutmish
(b) Sikandar Lodi
(c) Mohammad bin Tughlaq
(d) Balban

Q31. Which crop is best suited for dry land?
(a) Sugarcane
(b) Jute
(c) Wheat
(d) Groundnut

Q32. Which of the following quantities is not a vector?
(a) Displacement
(b) Velocity
(c) Force
(d) Volume

Q33. In which types of mountains are the highest peaks in the world found?
(a) Old fold mountains
(b) New fold mountains
(c) Residual mountains
(d) Block mountains

Q34. The period of the Ninth five-year Plan of India is $\qquad$
(a) 1992-97
(b) 1997-2002
(c) 1990-95
(d) None of these

Q35. Which of the following is negatively Charged?
(a) X- ray
(b) Alpha Particle
(c) Beta Particle
(d) Gamma Particle

Q36. The 73 rd amendment of the Constitution is related to $\qquad$
(a) Impeachment of the President
(b) Appointment of the Election Commission
(c) Reservation of seats in Educational Institutions
(d) Panchayati Raj Systems

Q37. Who invented the telescope?
(a) Newton
(b) Galileo
(c) Rutherford
(d) James Watt

Q38. Relative Poverty means $\qquad$
(a) Bankruptcy
(b) Trade Cycle
(c) Economic Inequalities
(d) None of these

Q39. Which of the following is a fundamental duty?
(a) The separation of the Executive from the Judiciary
(b) To value and preserve the rich heritage of our composite culture
(c) Free and compulsory education for Children
(d) To abolish the practice of Untouchability

Q40. Bhakra Nangal Dam is built on which river?
(a) Ravi
(b) Indus
(c) Sutlej
(d) Chenab

Q41. Which of the following laws is used as a rule to predict the solubility of gases in metals?
(a) Sievert's law
(b) Dalton's Law
(c) Graham's law
(d) Henry's law

Q42. The 13th inscription of Ashoka, which is the longest inscription, gives information about
(a) Rule of Dhamma
(b) Kalinga War
(c) State Rule
(d) Purpose of Inscriptions

Q43. Which article of the Indian Constitution provides for a Vice-President of India?
(a) Article 61
(b) Article 62
(c) Article 63
(d) Article 65

Q44. In which of the following years, Sabarmati Ashram was established by Mahatma Gandhi?
(a) 1910
(b) 1912
(c) 1915
(d) 1917

Q45. With which sport is Dutee Chand associated?
(a) Sprint 100 m
(b) Long Jump
(c) High Jump
(d) Discus Throw

Q46. When is 'World Population Day' observed across the world?
(a) July 9
(b) July 10
(c) July 11
(d) July 12

Q47. Sir Edwin Montagu, and the Viceroy, Lord Chelmsford are related to which of the following?
(a) Government of India Act 1858
(b) Government of India Act 1909
(c) Government of India Act 1919
(d) Government of India Act 1935

Q48. In which year Dogri language was included in the Eighth Schedule of the Indian Constitution?
(a) 2001
(b) 2002
(c) 2003
(d) 2004

Q49. Who protected the kingdom from the invasion of the Huns?
(a) Samudragupta
(b) Skandagupta
(c) Kumaragupta
(d) Buddhagupta

Q50. Which of these is the cause of Friction?
(a) Roughness of surfaces in contact
(b) Force of adhesion between the molecules of the surfaces in contact
(c) Both a and b
(d) None of the above

Q51. Due to which layer the ultraviolet light of the Sun radiation does not reach the Earth atmosphere?
(a) Oxygen
(b) Hydrogen
(c) Ozone
(d) Helium

Q52. What is an instrument used for the detection and feasibility of sound waves called?
(a) Radar
(b) Sonar
(c) Pucker
(d) None of these

Q53. What are the primary colors in the visual display unit?
(a) Red, Yellow, Blue
(b) Red, Green, Blue
(c) Red, White, Blue
(d) Red, Green, Yellow

Q54. Who discovered X-rays?
(a) Becquerel
(b) Roentgen
(c) Marie Curie
(d) Van Lew

Q55. What is the proportion of the Sun in the Solar System?
(a) $60 \%$
(b) $70 \%$
(c) $98 \%$
(d) $99.86 \%$

Q56. Submarines move in the water. Which of the following fuel is used in their engines?
(a) Petrol and Oxygen
(b) Diesel
(c) Battery
(d) Steam

Q57. How can ultraviolet rays be used in water treatment?
(a) water decomposer
(b) disinfectant
(c) precipitant
(d) None of these

Q58. What is the reason for the luster of a diamond?
(a) total internal reflection of light
(b) interference of light
(c) polarization of light
(d) refraction of light

Q59. Pandwani is a folk dance/drama of which state?
(a) Madhya Pradesh
(b) Maharashtra
(c) Chhattisgarh
(d) Karnataka

Q60. Which article of the Constitution of India says that all public places are open to all citizens?
(a) Article 15(2)
(b) Article 16(2)
(c) Article 17
(d) Article 18

Q61. The article related to giving directions to the State Government for the formation of Panchayat is-
(a) Article 55
(b) Article 40
(c) Article 38
(d) Article 45

Q62. Which of the following instruments is used to study the dispersion of light?
(a) Microscope
(b) Telescope
(c) Photometer
(d) Spectrometer

Q63. The newspaper Sarv Hitaishi was published in 1880 from which of the following places?
(a) Maharashtra
(b) Lucknow
(c) Patna
(d) Nadia

Q64. The summer Olympic 2024 will be held in which country?
(a) Japan
(b) France
(c) Australia
(d) New Zealand

Q65. In 1906, the goal of the Calcutta session of Congress was -
(a) The goal of achieving Swaraj
(b) The goal of boycotting the Swadeshi movement
(c) Aim to promote English education
(d) none of these

Q66. How many times has the preamble of the constitution been amended so far?
(a) once
(b) ten times
(c) five times
(d) not even once

Q67. Lai tribe is found in which of the following regions?
(a) Kenya
(b) Myanmar
(c) Peru
(d) Egypt

Q68. Which state is the largest producer of solar power in India?
(a) Assam
(b) Gujarat
(c) Karnataka
(d) Rajasthan

Q69. The unit of potential difference is -
(a) ampere
(b) Volt
(c) Coulomb
(d) 0 m

Q70. Gandhi participated first time in the Calcutta Session of Congress in which year?
(a) 1901
(b) 1902
(c) 1904
(d) 1905

Q71. Recently the Ministry of Railways has stopped the concession in fare for whom?
(a) Exemption available to railway employees
(b) Exemption to disabled people
(c) Discounts to the players
(d) Exemption given to freedom fighters

Q72. Which of the following book is written by actor Anupam Kher?
(a) The Art of Mindfulness
(b) The Light of Asia
(c) 40 years with Bollywood
(d) Your Best Day is Today

Q73. The Roshni Act is a controversial law of which state/UT, which was invalidated on October 2020?
(a) Pondicherry
(b) Chandigarh
(c) Jammu and Kashmir
(d) Uttar Pradesh

Q74. In which year the Saat Nischay program was started in Bihar?
(A) 2014
(B) 2015
(C) 2017
(D) 2019

Q75. In which district of Bihar was the Dashrath Manjhi Mahotsav 2022 organized on August 17, 2022?
(A) Muzaffarpur
(B) Patna
(C) Gaya
(D) Bhagalpur

Q76. Prime Minister Narendra Modi was honored with the prestigious Legion of Merit award by which of the following country on December 2020?
(a) Britain
(b) Japan
(c) America
(d) Canada

Q77. Which of the following country won the title of Handball World Championship 2021?
(a) Spain
(b) Denmark
(c) Japan
(d) Sweden

Q78. Recently the eruption of Mount Kilauea volcano has been in discussion, in which country is this volcano located?
(a) Ecuador
(b) Japan
(c) United States
(d) Italy

Q79. The division of the Maurya Empire into seven classes is specifically mentioned-
(a) Kautilya\&\#39;s Arthashastra
(b) Puranas
(c) In the inscription of Ashoka
(d) Megasthenes in the book Indica

Q80. Bihar was given the status of a province of the Mughal Empire.
(a) 1529 AD
(b) 1580 AD
(c) 1587 AD
(d) 1590 AD

Q81. Which of the following Committees recommended the Naya Panchayats?
(a) Balwant Rai Mehta Committee
(b) Ashok Mehta Committee
(c) GVK Rao Committee
(d) None of these

Q82. Bihar Provincial Kisan Sabha was formed in which year?
(a) 1929
(b) 1930
(c) 1931
(d) 1932

Q83. The Swadeshi movement takes place in India during the?
(a) Champaran Satyagraha
(b) Anti-Bengal Partition
(c) Rowlatt Act
(d) Non-Co-operation Movement

Q84. Which of the following functions is not the concern of Local Self- Government?
(a) Public Health
(b) Sanitation
(c) Public Utility Services
(d) Maintenance of Public Order

Q85. The system of Panchayati Raj is mentioned in
(a) State List
(b) Union List
(c) Concurrent List
(d) None of these

Q86. The apex bank for providing agricultural refinance in India is $\qquad$
(a) RBI
(b) NABARD
(c) SBI
(d) SEBI

Q87. Who is the Highest Civil Services Officers of the Central Government?
(a) Attorney General of India
(b) Finance Secretary
(c) Cabinet Secretary
(d) Home secretary

Q88. What is the minimum age for a member of Parliament?
(a) 18 Years
(b) 21 Years
(c) 25 Years
(d) 30 years

Q89. The Money Bill can be presented $\qquad$
(a) Only in Lok Sabha
(b) Only in Rajya Sabha
(c) In both Houses
(d) None of these

Q90. What is the nature of the Indian Constitution?
(a) Federal
(b) Unitary
(c) Parliamentary
(d) Federal but Unitary

Q91. Which state has secured the top spot in the 4th Khelo India Youth games?
(a) Haryana
(b) Tamil Nadu
(c) Karnataka
(d) Kerala

Q92. Which among the following is the folk dance of Tamil Nadu?
(a) Kuchipudi
(b) Bharatnatyam
(c) Kathakali
(d) Kathak

Q93. Bronze is an alloy of which of the following?
(a) copper and zinc
(b) tin and zinc
(c) copper and tin
(d) iron and zinc

Q94. Who won the women's Euro Cup 2022?
(a) Germany
(b) France
(c) Sweden
(d) England

Q95. Who has become the 74th Grandmaster of India?
(a) Sankalp Gupta
(b) Rahul Srivastava
(c) Mitrabha Guha
(d) Bharat Subramaiam

Q96. Who won the Canadian Grand Prix title in June 2022?
(a) Carlos Sanz
(b) Lewis Hamilton
(c) Max Verstappen
(d) Sebastian Vettel

Q97. Brass becomes colorless in the air due to the continuous presence of
(a) Aluminum phosphide
(b) Hydrogen Sulphide
(c) Hydrogenated wafer
(d) Aluminum sulfide

Q98. Which of the following sea has the highest average salinity?
(a) Dead Sea
(b) The Yellow Sea
(c) The Mediterranean Sea
(d) Black sea

Q99. The 'Beach Vigil app' was launched by the Chief Minister of which state?
(a) Kerala
(b) Gujarat
(c) Tamil Nadu
(d) Goa

Q100. Who was the founder of the Bahmani Kingdom?
(a) Hasan Gangu
(b) Firoz Shah
(c) Mahmud Ganowa
(d) Asaf Khan


## SOLUTIONS

S1.Ans.(c)
Sol. J. B. Kriplani
S2. Ans.(b)
Sol. Carbohydrate
S3. Ans.(a)
Sol. Epidermis

## S4. Ans.(d)

Sol. Lala Lajpat Rai

## S5. Ans.(c)

Sol. Thorium

## S6. Ans.(a)

Sol. The oldest living organism on earth is bluegreen algae, it is the first organism that started making food using sunlight and water.

## S7. Ans.(b)

Sol. Civil Disobedience Movement

## S8. Ans.(c)

Sol. Charcoal, sulfur, and potassium nitrate

## S9. Ans.(b)

Sol. The UK has become the first country to approve a vaccine for the Omicron version of Kovid. This
vaccine is authorized for use in people 18 years of age and older.

S10. Ans.(c)
Sol. Lord Cornwallis
S11. Ans.(a)
Sol. Epidermis
S12. Ans.(b)
Sol. Jawaharlal Nehru
S13. Ans.(c)
Sol. there is a loss of electrons

S14. Ans.(d)
Sol. Stuttgart
S15. Ans.(b)
Sol. volt
S16. Ans.(c)
Sol. Civil Disobedience Movement
S17. Ans.(a)
Sol. Lakshadweep
S18. Ans.(c)
Sol. Gopal Krishna Gokhale

S19. Ans.(a)
Sol. Jog or Garsoppa Falls is located on the Sharavati River in Karnataka. Shivasamudram Falls is situated
on the river Kaveri. Dhuandhar Falls is located in the Narmada River Madhya Pradesh. Dudhsagar Falls is
situated on the Mandvi River on the border of Goa and Karnataka.

S20. Ans.(b)
Sol. Lord Cornwallis

S21. Ans.(a)
Sol. Arya Walvekar
S22. Ans.(b)
Sol. 1784

S23. Ans.(c)
Sol. Gitanjali Shree

## S24. Ans.(d)

Sol. The Hindu growth rate is related to the national income or the real growth rate of the Indian economy. The proponent of this concept, Prof. Raj was Krishna.

## S25. Ans.(c)

Sol. Stomach

S26. Ans.(a)
Sol. 24 April
S27. Ans.(c)
Sol. The Union Ministry of Social Justice and Empowerment has launched the SMILE-75 (SMILE75)
initiative for the comprehensive rehabilitation of beggars in 75 identified municipalities as part of celebrations of 75 years of independence.

S28. Ans.(a)
Sol. Article 29
S29. Ans.(b)
Sol. Dioxins

S30. Ans.(a)
Sol. Iltutmish

S31. Ans.(d)
Sol. Groundnut
S32. Ans.(d)
Sol. Volume
S33. Ans. (b)
Sol. New fold mountains
S34. Ans. (b)
Sol. 1997-2002
S35. Ans.(c)
Sol. Beta Particle
S36. Ans.(d)
Sol. Panchayati Raj Systems
S37. Ans.(b)
Sol. Galileo
S38. Ans. (c)
Sol. Economic Inequalities
S39. Ans.(b)
Sol. To value and preserve the rich heritage of our composite culture.

## S40. Ans.(c)

Sol. Sutlej

## S41. Ans.(a)

Sol. Sievert's law is used as a rule in physical metallurgy to predict the solubility of gases in metals.

## S42. Ans. (b)

Sol. Kalinga war

## S43. Ans.(c)

Sol. Article 63 of the Indian Constitution states that "There shall be a Vice President of India." The Vice President acts as President in the absence of the president due to death, resignation, impeachment, or other situations.

## S44. Ans.(d)

Sol. Sabarmati Ashram is located in the Sabarmati suburb of Ahmedabad, Gujarat. Gandhiji's India ashram was originally established at the Kocharab Bungalow of Jivanlal Desai, a barrister, and friend of Gandhi, on 25 May 1915. At that time the ashram was called the Satyagraha Ashram. But Gandhi wanted to carry out various activities such as farming and animal husbandry, in addition to other pursuits which called for the need for a much larger area of usable land. So two years later, on 17 June 1917, the ashram was relocated to an area of thirtysix acres on the banks of the River Sabarmati, and it came to be known as the Sabarmati Ashram.

S45. Ans.(a)
Sol. Sprint 100m

## S46. Ans.(c)

Sol. 'World Population Day is observed across the world, on July 11 every year. The day was first celebrated in the year 1990.

## S47. Ans.(c)

Sol. The government of India Act 1919 was passed by British Parliament to further expand the participation of Indians in the Government of India. Since the act embodied reforms as recommended by a report of Edwin Montagu \{Secretary of State for India\} and Lord Chelmsford \{Viceroy and Governor General\}, it is also called as MontagueChelmsford Reforms or simply Mont-Ford Reforms. The most notable feature of the act was the "end of benevolent despotism" and the introduction of responsible government in India.

## S48. Ans.(c)

Sol. Ninety-Second Amendment Act, 2003 included four languages in the Eighth Schedule viz. Bodo, Dogri (Dongri), Maithili (Maithili) and Santhali. With this, the total number of constitutionally recognized languages increased to the current 22.

## S49. Ans.(b)

Sol. Skandagupta

## S50. Ans.(c)

Sol. Both $a$ and $b$

S51. Ans.(c)
Sol. Ozone

S52. Ans.(b)
Sol. Sonar

S53. Ans.(b)
Sol. Red, Green, Blue
S54. Ans.(b)
Sol. Roentgen
S55. Ans.(d)
Sol. 99.86\%
S56. Ans.(d)
Sol. Steam

S57. Ans.(b)
Sol. Disinfectant

S58. Ans.(a)
Sol. total internal reflection of light
S59. Ans. (c)
Sol. Chhattisgarh

S60. Ans.(d)
Sol. According to Article 15(2), all public places are open to common citizens.

S61. Ans.(b)
Sol. Article 40

S62. Ans.(d)
Sol. Spectrometer

S63. Ans.(c)
Sol. Patna

## S64. Ans.(b)

Sol. France

S65. Ans.(a)
Sol. The goal of achieving Swaraj

S66. Ans.(a)
Sol. Three new words socialist, secular, and integrity were added in the preamble of the constitution by the 42nd amendment in 1976.

## S67. Ans.(b)

Sol. Myanmar
S68. Ans.(c)
Sol. Karnataka
S69. Ans.(b)
Sol. Volt
S70. Ans.(a)
Sol. 1901
S71. Ans.(c)
Sol. Discounts to the players

S72. Ans.(d)
Sol. Your Best Day is Today

S73. Ans.(c)
Sol. Jammu and Kashmir
S74. Ans.(b)
Sol. 2015

S75. Ans.(c)
Sol. Gaya
S76. Ans.(c)
Sol. America
S77. Ans.(b)
Sol. Denmark
S78. Ans.(c)
Sol. United States
S79. Ans.(d)
Sol. Megasthenes in the book Indica
S80. Ans.(b)
Sol. 1580 AD

S81. Ans.(b)
Sol. Ashok Mehta Committee

S82. Ans.(a)
Sol. 1929
S83. Ans.(b)
Sol. Anti-Bengal Partition
S84. Ans.(d)
Sol. Maintenance of Public Order

S85. Ans.(a)
Sol. State List
S86. Ans. (b)
Sol. NABARD Bank
S87. Ans.(c)
Sol. Cabinet Secretary

S88. Ans.(c)
Sol. 25 Years

S89. Ans.(a)
Sol. Only in Lok Sabha
S90. Ans.(d)
Sol. Federal in nature but Unitary
S91. Ans.(a)
Sol. Haryana
S92. Ans.(b)
Sol. Bharatanatyam
S93. Ans.(c)
Sol. Copper \& Tin
S94. Ans.(d)
Sol. England
S95. Ans.(b)
Sol. Rahul Srivastava
S96. Ans.(c)
Sol. Max Verstappen

Sol. Hydrogen Sulphide
S98. Ans.(a)
Sol. Dead Sea

## S99. Ans.(d)

Sol. Goa
S100. Ans.(a)
Sol. Hasan Gangu


## BSSC Inter Level Memory Based Questions: Maths

Q1. Simple interest on a sum of Rs 50200 for 3 months is Rs 1380.5. What is the rate (in percentage) of interest per annum?
(a) 11
(b) 9
(c) 9.5
(d) 8.5

Q2. On selling 120 bottles, Vijay earns profit equal to the cost price of 10 bottles. What is the profit percentage?
(a) 8.33
(b) 9.09
(c) 7.7
(d) 12.5

Q3. The marked price of a shirt is Rs 1800 and retailer gets a discount of $40 \%$. If he sells that shirt for Rs 1800, then what is the profit percentage of retailer?
(a) 40
(b) 66.66
(c) 37.5
(d) 62.5

Q4. Rahul can complete a work in 18 days and Sonu can complete the same work in 15 days. If both together work for 5 days, then what part of total work is left?
(a) $7 / 15$
(b) $11 / 18$
(c) $7 / 18$
(d) $8 / 15$

Q5. A train moves at a speed of $35 \mathrm{~m} / \mathrm{sec}$ and crosses a tunnel of length 960 metres, in 40 seconds. What is the length (in metres) of the train?
(a) 360
(b) 440
(c) 530
(d) 560

Q6. Working together printer A and B would finish a task in 48 minutes A alone would finish the task in 120 minutes. How many pages does the task contains if printer B prints 10 page a minute more than printer A ?
(a) 2800
(b) 2000
(c) 2400
(d) 1600

Q7. Working together A and B will complete a job in 15/2 days. If A work alone and complete half the job and then B taken over and complete the remaining half of the job, they will complete the task in 20 days. How long will A alone take to do the job if B in more efficient than A?
(a) 25
(b) 30
(c) 20
(d) 35

Q8. 24 Persons working 8 hours a day can complete a work in 12 day. In how days 18 persons working 6 hours a day will complete $30 \%$ of the work?
(a) 6.3 days
(b) 6.9 days
(c) 6.7 days
(d) 6.4 days


Q9. A can do a work in 15 days, while B can do same work in 24 days. They start the work together. Few day later C Join them thus all of them Complete the work in 8 days. All of them were paid for this 6000 Rs. What is the share of C .
(a) 700
(b) 600
(c) 800
(d) 900

Q10. A and B can complete a work in 25 days. A is $331 / 3 \%$ more efficient than B. How long would A take to complete the work alone?
(a) $21 \frac{3}{5}$ days
(b) 16 days
(c) 26 days
(d) $43 \frac{3}{4}$ days

Q11. The ratio of number of balls in bags $x, y$ is 2 : 3. Five balls are taken from bag $y$ and are dropped in bag $x$, number of balls are equal in each bag now. Number of balls in each bag now is
(a) 45
(b) 20
(c) 30
(d) 25

Q12. If the square of the sum of two numbers is equal to 4 times of their product, then the ratio of these numbers is:
(a) $2: 1$
(b) $1: 3$
(c) $1: 1$
(d) $1: 2$

Q13. Three numbers are in the ratio 1:2:3. By adding 5 to each of them, the new numbers are in the ratio $2: 3: 4$. The numbers are:
(a) 10, 20, 30
(b) $15,30,45$
(c) $1,2,3$
(d) $5,10,15$

Q14. Ram got twice as many marks in English as in Science. His total marks in English, Science and Maths are 180. If the ratio of his marks in English and Maths is $2: 3$, what is his marks in Science?
(a) 30
(b) 60
(c) 72
(d) 90

Q15. The ratio in which a man must mix rice at Rs. 10.20 per kg and Rs. 14.40 per kg so as to make a mixture worth Rs. 12.60 per kg, is
(a) $4: 3$
(b) $2: 5$
(c) $18: 24$
(d) $3: 4$

Q16. A boat covers a distance of 14 km upstream and 16 km downstream in 9 hours. It covers a distance of 12 km upstream and 40 km downstream in 11 hours. What is the speed (in $\mathrm{km} / \mathrm{hr}$ ) of the boat in still water?
(a) 5
(b) 2
(c) 3
(d) 4

Q17.
If $11 a+11 b=29282$ find the value of $\frac{a+b}{4}$.
(a) 661.5
(b) 663.5
(c) 665.5
(d) 667.5

Q18. If the sum of two numbers is 25 and their product is 156 . Find the larger number.
(a) 11
(b) 12
(c) 13
(d) 15

Q19. If $16^{2 x+6}=64$, then what is the value $x^{1}$.
(a) $-9 / 4$
(b) $9 / 4$
(c) $-18 / 4$
(d) $18 / 4$

Q20. Find the value of ' $x$ ', if $8^{x} \times 32^{x}=2^{10}$.
(a) $1 / 8$
(b) $10 / 8$
(c) $20 / 8$
(d) $30 / 8$

Q21. In an examination, $48 \%$ of candidates passed in science and $56 \%$ failed in mathematics. If $32 \%$ failed in both subjects, then what percent passed in both subjects?
(a) $76 \%$
(b) $24 \%$
(c) $28 \%$
(d) $22 \%$

Q22. The average marks of 50 students in a class was found to be 64. If the marks of two students were incorrectly entered as 38 and 42 instead of 83 and 24 respectively, then what is the correct average?
(a) 64.54
(b) 62.32
(c) 61.24
(d) 61.86

Q23. The average of 13 numbers is 42 . If a 14 th number is included, then the average becomes 44. What is the 14th number?
(a) 62
(b) 66
(c) 68
(d) 70

Q24. The average of $36,28,43,56,74,65,12$ and $x$ is 45 . What is the value of x ?
(a) 48
(b) 42
(c) 44
(d) 46

Q25. The average age of a group of 20 men is 30 years. A 50-year-old man leaves the group, while a woman joins the group. The average age decreases by 1 year. What is the age of the woman?
(a) 40 years
(b) 30 years
(c) 35 years
(d) 38 years

Q26. If $60 \%$ of a number is 120 more than $20 \%$ of the number, then $28 \%$ of the number is less than $331 / 3 \%$ of the number by?
(a) 14
(b) 12
(c) 16
(d) 15

Q27. A dealer allows a discount of $12 \%$ on the marked price. If the selling price is Rs. 924, the discount is:
(a) Rs. 126
(b) Rs. 110.90
(c) Rs. 114
(d) Rs. 119.20

Q28. If the selling price of an article is $1 \frac{2}{5}$ of its cost price, the percentage gain is:
(a) 47
(b) 40
(c) 20
(d) 25

Q29. If the cost price of 4 chairs is equal to selling price of 3 chairs, then the profit or loss percentage is:
(a) $33 \frac{1}{3} \%$
(b) $20 \%$
(c) $16 \frac{2}{3} \%$
(d) $25 \%$

Q30. A shopkeeper buys a book for Rs 2,500 and marks its price at $15 \%$ above cost. He allows a discount of Rs 345. The discount percentage is:
(a) 10
(b) 12
(c) 11
(d) 13

Q31. A person sold an article for Rs. 3,600 and got a profit of $20 \%$. Had he sold the article for Rs. 3,150, how much profit would he have got?
(a) $4 \%$
(b) $5 \%$
(c) $6 \%$
(d) $10 \%$

Q32. Two lots of onions with equal quantity, one costing Rs. 10 per kg and the other costing Rs. 15 per kg, are mixed together and whole lot is sold at Rs. 15 per kg. What is the profit or loss?
(a) $10 \%$ loss
(b) $10 \%$ profit
(c) $20 \%$ profit
(d) $20 \%$ loss

Q33. On a $20 \%$ discount sale, an article costs Rs. 596. What was the original price of the article?
(a) Rs. 720
(b) Rs. 735
(c) Rs. 745
(d) Rs. 775

Q34. When an article is sold at $20 \%$ discount, the selling price is Rs. 24. What will be the selling price when the discount is $30 \%$ ?
(a) Rs. 25
(b) Rs. 23
(c) Rs. 21
(d) Rs. 20

Q35. A shopkeeper sells his articles at their cost price but uses a faulty balance which reads 1000 g for 800 g . What is his actual profit percentage?
(a) $25 \%$
(b) $20 \%$
(c) $40 \%$
(d) $30 \%$

Q36. A man buys 200 oranges for Rs. 1,000. How many oranges for Rs. 100 can he sell so that his profit percentage is $25 \%$ ?
(a) 10
(b) 14
(c) 16
(d) 20

Q37. A person selling an article for Rs. 96 finds that his loss percent is one-fourth of the amount of rupees that he paid for the article. What can be the cost price?
(a) Rs. 160 only
(b) Rs. 240 only
(c) Rs. 160 or Rs. 240
(d) Neither Rs. 160 nor Rs. 240

Q38. A milkman claims to sell milk at its cost price only, but he is making a profit of $20 \%$ since he has mixed some amount of water in the milk. What is the percentage of milk in the mixture?
(a) $80 \%$
(b) $\frac{250}{3} \%$
(c) $75 \%$
(d) $\frac{200}{3} \%$

Q39. The value of a single discount on some amount which is equivalent to a series of discounts of $10 \%$, $20 \%$ and $40 \%$ on the same amount, is equal to
(a) $43.2 \%$
(b) $50 \%$
(c) $56.8 \%$
(d) $70 \%$

Q40. A cloth merchant buys cloth from a weaver and cheats him by using a scale which is 10 cm longer than a normal metre scale. He claims to sell cloth at the cost price to his customers, but while selling uses a scale which is 10 cm shorter than a normal metre scale. What is his gain?
(a) $20 \%$
(b) $21 \%$
(c) $22 \frac{2}{9} \%$
(d) $23 \frac{1}{3} \%$

Q41. If the cost price of an article is $80 \%$ of its selling price, the profit per cent is?
(a) $20 \%$
(b) $22 \frac{1}{2} \%$
(c) $24 \%$
(d) $25 \%$

Q42. If the profit on selling an article for Rs. 425 is the same as the loss on selling it for Rs. 355, then the cost price of the article is?
(a) Rs. 410
(b) Rs. 380
(c) Rs. 400
(d) Rs. 390

Q43. The profit made when an article is sold for Rs. 78 is twice as much as when it is sold for Rs. 69. The cost price of the article is?
(a) Rs. 60
(b) Rs. 51
(c) Rs. 55.50
(d) Rs. 70

Q44. Ten articles were bought for Rs. 8, and sold at 8 for Rs. 10. The gain percent is?
(a) $54.75 \%$
(b) $57.25 \%$
(c) $56.25 \%$
(d) $55 \%$

Q45. Find the selling price of an article if a shopkeeper allows two successive discounts of $5 \%$ each on the marked price of Rs. 80.
(a) Rs. 70.20
(b) Rs. 70.10
(c) Rs. 72.00
(d) Rs. 72.20

Q46. If 7 men working 7 hrs . a day for each of 7 days produce 7 units of work, then the units of work produced by 5 men working 5 hrs . a day for each of 5 days is?
(a) $25 / 343$
(b) $125 / 49$
(c) $49 / 125$
(d) $343 / 25$

Q47. A sum of money is sufficient to pay A's wages for 21 days and B's wages for 28 days. The same money is sufficient to pay the wages of both for?
(a) $12 \frac{1}{4}$ days
(b) 14 days
(c) $24 \frac{1}{2}$ days
(d) 12 days

Q48. Working efficiencies of P and Q for completing a piece of work are in the ratio $3: 4$. The number of days to be taken by them to complete the work will be in the ratio?
(a) $3: 2$
(b) $2: 3$
(c) $4: 3$
(d) $3: 4$

Q49. A is twice as good as $B$ and together they finish a piece of work in 16 days. The number of days taken by A alone to finish the work is?
(a) 20 days
(b) 21 days
(c) 22 days
(d) 24 days

Q50. A does $20 \%$ less work than B. If A can complete a piece of work in $71 / 2$ hours, then B can do it in?
(a) $6 \frac{1}{2}$ hours
(b) 6 hours
(c) $5 \frac{1}{2}$ hours
(d) 5 hours

Q51. Arun lends Rs. 20,000 to two of his friends. He gives Rs. 12,000 to the first at $8 \%$ p.a. simple interest. Arun wants to make a profit of $10 \%$ on the whole. The simple interest rate at which he should lend the remaining sum of money to the second friend is
(a) $8 \%$
(b) $16 \%$
(c) $12 \%$
(d) $13 \%$

Q52. A sum of money at compound interest amounts to thrice itself in 3 years. In how many years will it be 9 times itself?
(a) 9
(b) 27
(c) 6
(d) 3

Q53. A person deposited Rs. 500 for 4 years and Rs. 600 for 3 years at the same rate of simple interest in a bank. Altogether he received Rs. 190 as interest. The rate of simple interest per annum was
(a) $4 \%$
(b) $5 \%$
(c) $2 \%$
(d) $3 \%$

Q54. The simple interest on a sum of money is $\frac{1}{16}$ of the sum. If the number of years is numerically equal to the rate percent per annum, then the rate percent per annum is
(a) $3 \frac{1}{3} \%$
(b) $6 \frac{2}{3} \%$
(c) $2 \frac{1}{2} \%$
(d) $7 \frac{1}{2} \%$

Q55. 94 is divided into two parts in such a way that the fifth part of the first and the eighth part of the second are in the ratio $3: 4$. The first part is?
(a) 30
(b) 36
(c) 40
(d) 28

Q56. If $8 \%$ of $x$ is the same as $4 \%$ of $y$, then $20 \%$ of $x$ is the same as?
(a) $80 \%$ of $y$
(b) $16 \%$ of $y$
(c) $10 \%$ of $y$
(d) $50 \%$ of $y$

Q57. What is to be added to $15 \%$ of 160 so that the sum may be equal to $25 \%$ of 240 ?
(a) 24
(b) 84
(c) 60
(d) 36


Q58. In a marriage party $32 \%$ are women, $54 \%$ are men and there are 196 children. How many men are there in the marriage party?
(a) 756
(b) 448
(c) 332
(d) 324

Q59. The income of C is $20 \%$ more than B's and the income of B is $25 \%$ more than A's. Find by how much per cent is C's income more than A's?
(a) $150 \%$
(b) $50 \%$
(c) $25 \%$
(d) $35 \%$

Q60. The ratio between Ram's age and Rahim's age is $10: 11$. What is the age of Rahim in percentage of Ram's age?
(a) $109 \frac{1}{11} \%$
(a)
(b) $111 \%$
(c) $111 \frac{1}{9} \%$
(d) $110 \%$

Q61. The average age of $A, B, C, D$ and $E$ is 40 years. The average age of A and B is 35 years and the average age of $C$ and $D$ is 42 years. The age of $E$ is:
(a) 46
(b) 48
(c) 32
(d) None of these

Q62. The average of 30 numbers is 15 . The average of the first 18 numbers is 10 and that of the next 11 numbers is 20 . The last number is?
(a) 56
(b) 52
(c) 60
(d) 50

Q63. The average weight of 8 person's increases by 2.5 kg when a new person comes in place of one of them weighing 65 kg . The weight of the new person is?
(a) 84 kg
(b) 76 kg
(c) 85 kg
(d) 76.5 kg

Q64. The average of some natural numbers is 15 . If 30 is added to first number and 5 is subtracted from the last number the average becomes 17.5 then the number of natural numbers is?
(a) 15
(b) 30
(c) 20
(d) 10

Q65. If A had worked alone, he would have taken 63 hours to do the task. What is B's share, if A and B together on a task finishing it in 36 hours and they get paid Rs. 5,950 for it?
(a) 3600
(b) 3400
(c) 2750
(d) 2550

Q66. The average of runs scored by a player in 10 innings is 50 . How many runs should he score in the 11th innings so that his average is increased by 2 runs?
(a) 80 runs
(b) 72 runs
(c) 60 runs
(d) 54 runs

Q67. The average of marks of 28 students in Mathematics was 50, 8 students left the school, then this average increased by 5 . What is the average of marks obtained by the students who left the school?
(a) 50.5
(b) 37.5
(c) 42.5
(d) 45

Q68. The average of six numbers is 32 . If each of the first three numbers is increased by 2 and each of the remaining three numbers is decreased by 4 , then the new average is?
(a) 35
(b) 34
(c) 31
(d) 30

Q69. The average age of 20 boys in a class is 12 years. 5 new boys are admitted to the class whose average age is 7 years. The average age of the boys in the class becomes?
(a) 8.2 years
(b) 9.5 years
(c) 12.5 years
(d) 11 years

Q70. The arithmetic mean (average) of the first 10 whole numbers is?
(a) 5
(b) 4
(c) 5.5

Q71. A vessel has 60 liters of solution of acid and water having $80 \%$ acid. How much water be added to make it a solution in which acid forms $60 \%$ ?
(a) 48 liters
(b) 20 liters
(c) 36 liters
(d) None of these

Q72. If the price of tea is increased by $20 \%$, by how much per cent the consumption of tea be reduced so that there is no increase in the expenditure on it?
(a) $25 \%$
(b) $8 \frac{1}{3} \%$
(c) $16 \frac{2}{3} \%$
(d) $20 \%$

Q73. A student has to obtain $33 \%$ of total marks to pass. He got $25 \%$ of total marks and failed by 40 marks. The number of total marks is?
(a) 800
(b) 300
(c) 500
(d) 1000

Q74. If price of a book is first decreased by $25 \%$ and then increased by $20 \%$, the net change in the price of the book will be?
(a) $10 \%$ decrease
(b) $5 \%$ decrease
(c) No change
(d) $5 \%$ increase

Q75. In an office $40 \%$ of the staff is female, $40 \%$ of the females and $60 \%$ of the males voted for me. The percentage of votes I got was?
(a) $24 \%$
(b) $42 \%$
(c) $50 \%$
(d) $52 \%$

Q76. If $8 \%$ of $x$ is the same as $4 \%$ of $y$, then $20 \%$ of x is the same as?
(a) $80 \%$ of $y$
(b) $16 \%$ of $y$
(c) $10 \%$ of $y$
(d) $50 \%$ of $y$

Q77. What is to be added to $15 \%$ of 160 so that the sum may be equal to $25 \%$ of 240 ?
(a) 24
(b) 84
(c) 60
(d) 36

Q78. In a marriage party $32 \%$ are women, $54 \%$ are men and there are 196 children. How many men are there in the marriage party?
(a) 756
(b) 448
(c) 332
(d) 324

Q79. The income of C is $20 \%$ more than B's and the income of B is $25 \%$ more than A's. Find by how much per cent is C's income more than A's?
(a) $150 \%$
(b) $50 \%$
(c) $25 \%$
(d) $35 \%$

Q80. The ratio between Ram's age and Rahim's age is $10: 11$. What is the age of Rahim in percentage of Ram's age?
(a) $109 \frac{1}{11} \%$
(b) $111 \%$
(c) $111 \frac{1}{9} \%$
(d) $110 \%$

Q81. Three times a number is 24 more than the one-third of this number. This number is?
(a) 9
(b) 15
(c) 12
(d) 8

Q82. An oil merchant has 3 varieties of oil of volumes 432, 594 and 702 respectively. The number of cans of equal size that would be required to fill the oil separately is?
(a) $13,15,17$
(b) $8,13,15$
(c) $8,11,13$
(d) $6,9,11$

Q83. Given four different numbers, the average of first three numbers is four times the fourth number and the average of all the four numbers is 52 . What is the average of the first three number?
(a) 64
(b) 70
(c) 65
(d) 70

Q84. The cost prices of article $A$ and article B are Rs. 1200 and Rs. 1600 respectively. The selling price of article A is Rs. 1380 and the total profit after selling both the articles is $25 \%$. What is the profit percentage on the article $B$ ?
(a) $32.5 \%$
(b) $27.5 \%$
(c) $29.5 \%$
(d) $35.5 \%$

Q85. For what sum will the simple interest at R\% per annum for 2 years will be $R$ ?
(a) Rs. $\frac{100}{2 R}$
(b) Rs. $\frac{100}{R}$
(c) Rs. $\frac{200}{R}$
(d) Rs. 50

Q86. A merchant fixes the sale price of his goods at $15 \%$ above the cost price. He sells his goods at $12 \%$ less than the fixed price. His percentage of profit is?
(a) $2 \frac{1}{2} \%$
(b) $1 \frac{1}{2} \%$
(c) $1 \frac{1}{5} \%$
(d) $2 \%$

Q87. A number, on subtracting 15 from it, reduces to its $80 \%$. What is $40 \%$ of the number?
(a) 75
(b) 60
(c) 30
(d) 90

Q88. The average age of four brothers is 15 years. If their father is included, the average is increased by 5 years. The age of the father (in years) is?
(a) 35
(b) 40
(c) 38
(d) 36

Q89. If $60 \%$ of a number is 120 more than $20 \%$ of the number, then $28 \%$ of the number is less than 33 $1 / 3 \%$ of the number by?
(a) 14
(b) 16
(c) 12
(d) 15

Q90. The simple interest on a principal for 6 months at an interest rate of $10 \%$ per annum is Rs100. What is the principal?
(a) Rs. 1000
(b) Rs. 2000
(c) Rs. 1500

Q91. The average of first five readings out of total 9 readings is 12 . The average of last 5 readings is 15 . The average of 9 readings is 10 . Find out the 5 th readings.
(a) 35
(b) 45
(c) 63
(d) 55

Q92. Raj sells a bicycle to Pawan at a profit of $25 \%$ and Pawan sells it to Dinkar at a profit of $20 \%$. If Dinkar pays Rs 156, how much does Raj pay for it?
(a) Rs 134
(b) Rs 124
(c) Rs 114
(d) Rs 104

Q93. The sum of present ages of $A$ and $B$ is 7 times the difference of their ages. 5 years hence, their total ages will be 9 times the difference of their ages. What is the present age of elder one (in years)?
(a) 25
(b) 20
(c) 15
(d) 18

Q94. The sum of the squares of two numbers is 386 . If one of the numbers is 5 , the other will be?
(a) 361
(b) 289
(c) 19
(d) 17

Q95. The average marks obtained by 22 candidates in an examination are 45 . The average marks of the first 10 candidates are 55 and those of the last eleven are 40 . The number of marks obtained by the eleventh candidate is?
(a) 0
(b) 45
(c) 50
(d) 47.5

Q96. The students in three classes are in the ratio 2: 3: 5 . If 20 students are increased in each class, the ratio changes to 4: 5: 7. Originally the total number of students was?
(a) 50
(b) 80
(c) 100
(d) 150

Q97. A shoe company sold 50 pairs of shoes on a day costing Rs. 189.50 each for Rs. 10,000. Then the profit obtained in is?
(a) Rs. 522
(b) Rs. 525
(c) Rs. 573
(d) Rs. 612

Q98. The rate of interest per annum at which the total simple interest of a certain capital for 1 year is equal to the total simple interest of the same capital at the rate of $5 \%$ per annum for 2 years, is?
(a) $2.5 \%$
(b) $25 \%$
(c) $12.5 \%$
(d) $10 \%$

Q99. If x can finish a job in 4 hours and y can finish the same job in 8 hours independently, then they together will finish the job in?
(a) 160 minutes
(b) 120 minutes
(c) 150 minutes
(d) 140 minutes

Q100. A speed of $30.6 \mathrm{~km} / \mathrm{hr}$. is the same as?
(a) $10 \mathrm{~m} / \mathrm{sec}$
(b) $12 \mathrm{~m} / \mathrm{sec}$.
(c) $15.5 \mathrm{~m} / \mathrm{sec}$
(d) $8.5 \mathrm{~m} / \mathrm{sec}$

## Solutions

## S1. Ans.(a)

## Sol.

Required rate, $r=\frac{S I \times 100}{P \times T}$
$r=\frac{1380.5 \times 100}{50200 \times\left(\frac{3}{12}\right)}=11$

## S2. Ans.(a)

## Sol.

Let the CP of 1 bottle be Rs $x$
$\therefore$ CP of 120 bottles $=$ Rs $120 x$
And profit = Rs 10x
$\therefore$ Required profit percentage $=\frac{10 x}{120 x} \times 100=8.33 \%$

## S3. Ans.(b)

## Sol.

CP of the shirt for the retailer $=\frac{60}{100} \times 1800$
= Rs 1080
$\therefore$ required profit percentage $=\frac{1800-1080}{1080} \times 100=66.67 \%$

## S4. Ans.(c)

Sol.
Rahul $\rightarrow 18$
Sonu $\rightarrow 15>_{6}^{5}$ 90
Work completed in 5 days $=11 \times 5=55$
$\therefore$ Part of work left $=1-\frac{55}{90}=\frac{35}{90}=\frac{7}{18}$

## S5. Ans. (b)

## Sol.

Let the length of the train be $\times \mathrm{m}$
ATQ,
$35=\frac{(960+x)}{40}$
$x=440 \mathrm{~m}^{2}$
$\mathrm{x}=440 \mathrm{~m}$


## S6. Ans.(c)

Sol.
$(A+B) \times 48=a \times 120$
$\frac{A+B}{A}=\frac{120}{48}=\frac{5}{2}$
T. $\mathrm{W}=5 \mathrm{x} 48=240$

Efficiency -


## S7. Ans.(b)

Sol.


## S8. Ans.(d)

Sol.

$$
\begin{aligned}
& \frac{24 \times 8 \times 12}{100}=\frac{D \times 18 \times 6}{30} \\
& D=6.4
\end{aligned}
$$

S9. Ans. (c)
Sol.


Total work-120
$(A+B) 8$ days work $=(8+5) \times 8=104$
Remaining work (120-104) $=16$ done by $c$ 6000 paid for 120 work
Paid for 1 work $=\frac{6000}{120}=50 \mathrm{Rs}$.
C's share $=50 \times 16=800$ Rs.

## S10. Ans.(d)

## Sol.

A : B
4: 3
T.W $=25 \times 7$
$\mathrm{T} . \mathrm{W}=175$
A can complete work in $\frac{175}{4}$ days $=43 \frac{3}{4}$ days

## S11. Ans.(d)

Sol.
$x: y \Rightarrow 2: 3$
$\mathrm{x} \rightarrow 2 \mathrm{k}, \mathrm{y} \rightarrow 3 \mathrm{k}$
$2 \mathrm{k}+5=3 \mathrm{k}-5$
$\mathrm{k}=10$
No. of balls in each bag
$=2 \times 10+5$
$=25$

## S12. Ans.(c)

## Sol.

$$
\begin{aligned}
& (x+y)^{2}=4 x y \\
& x^{2}+y^{2}+2 x y=4 x y \\
& x^{2}+y^{2}-2 x y=0 \\
& (x-y)^{2}=0 \\
& x-y=0 \\
& x=y \\
& \text { Ratio } \rightarrow 1: 1
\end{aligned}
$$

## S13. Ans.(d)

## Sol.

Ratio $\rightarrow 1: 2: 3$
Ratio after adding $5 \rightarrow 2: 3: 4$
$(2-1)$ or $(3-2)$ or $(4-3) r \rightarrow 5$
$1 \mathrm{r} \rightarrow 5$
Numbers $\rightarrow 1 \times 5,2 \times 5,3 \times 5$
$\Rightarrow 5,10,15$

## S14. Ans.(a)

Sol.
$E+S+M=180$
$\mathrm{E}: \mathrm{M} \rightarrow 2: 3$
$\mathrm{E} \rightarrow 2 \mathrm{x}, \mathrm{M} \rightarrow 3 \mathrm{x}$
$\mathrm{E}=2 \mathrm{~S}$
$2 \mathrm{x}=2 \mathrm{~S}$
$\mathrm{S}=\mathrm{x}$
$2 \mathrm{x}+3 \mathrm{x}+\mathrm{x}=180$
$\mathrm{x}=30$
Marks in Science $=30$

S15. Ans.(d)
Sol.
$\begin{array}{ccc}\text { Using Alligation } \\ 10.20 \\ 180 & : & 2.40 \\ 180 & : & 240 \\ 3 & : & 4\end{array}$

## S16. Ans.(a)

Sol.
$V_{s}$ and $V_{b}$ the speed of current and speed of boat respectively. Atq,
$\frac{14}{V_{b}-V_{s}}+\frac{16}{V_{b}+V_{s}}=9 \mathrm{hrs}$
$\frac{12}{V_{b}-V_{s}}+\frac{40}{V_{b}+V_{s}}=11 \mathrm{hrs}$
On solving equation (i) and (ii)
We have $V_{b}=5 \mathrm{~km} / \mathrm{hr}$

## S17. Ans.(c)

## Sol.

$\mathrm{a}+\mathrm{b}=\frac{29282}{11}$
$=\mathrm{a}+\mathrm{b}=2662$
$\frac{\mathrm{a}+\mathrm{b}}{4}=\frac{2662}{4}=665.5$

## S18. Ans.(c)

## Sol.

$\mathrm{a}+\mathrm{b}=25 \Rightarrow \mathrm{a}=25-\mathrm{b}$
ab $=156$
$(25-b) b=156$
$b^{2}-25 b+156=0$
$b^{2}-12 b-13 b+156=0$
$b(b-12)-13(b-12)$
b $=12,13$
biggest of the two numbers $=13$

## S19. Ans.(a)

Sol.

$$
\begin{aligned}
& 16^{2 x+6}=64 \\
& 4^{2(2 x+6)}=4^{3} \\
& 2(2 x+6)=3 \\
& 4 x+12=3 \\
& x=\frac{-9}{4}
\end{aligned}
$$

## S20. Ans.(b)

## Sol.

$8^{x} \times 32^{x}=2^{10}$
$2^{3 x} 2^{5 x}=2^{10}$
$2^{8 x}=2^{10}$
$8 x=10$
$x=\frac{10}{8}$

## S21. Ans.(b)

## Sol.

Venn diagram for the failed students:


Total failed students $=20+32+24=76 \%$
Therefore, Students passed in both subjects $=(100-76) \%=24 \%$

## S22. Ans.(a)

Sol.
Total marks of the students $=64 \times 50=3200$
Actual total marks of the students
$=3200-38-42+83+24=3227$
Desired average $=\frac{3227}{50} \rightarrow 64.54$

## S23. Ans.(d)

Sol.
Sum of 13 numbers $=13 * 42=546$
Sum of 14 numbers $=616$
$\therefore 14^{\text {th }}$ number $=616-546 \rightarrow 70$

S24. Ans.(d)
Sol.
ATQ,
$\rightarrow \frac{36+28+43+56+74+65+12+x}{8}=45$
$\rightarrow \mathrm{x}=46$

## S25. Ans.(b)

## Sol.

Total age of the group $=20 \times 30=600$
Let the age of the woman $=k$
According to the question

$$
\begin{aligned}
& \frac{600-50+k}{20}=29 \\
& \Rightarrow 550+\mathrm{k}=580 \\
& \Rightarrow \mathrm{k}=30
\end{aligned}
$$

S26. Ans.(c)
Sol. Let number be $x$, then
$x \times(60 / 100)-x \times(20 / 100)=120$
$\Rightarrow \mathrm{x} \times(40 / 100)=120$
$\Rightarrow \mathrm{x}=120 \times(100 / 40)=300$
$\therefore$ Number is 300
According to the question
$28 \%$ of the number is less than $33.33 \%$ of the number $=(33.33 / 100) \times 300-(28 / 100) \times 300$ $\Rightarrow$ 99.99-84 = 16 approximately

## S27. Ans.(a)

Sol.
$12 \%=\frac{3}{25}>\mathrm{MP}$ Discount
A.T.Q.
$22 \rightarrow 924$
$1 \rightarrow 42$
discount $\rightarrow 3 \times 42$
$=126$

## S28. Ans.(b)

Sol.
A.T.Q.
$\mathrm{SP}=\frac{7}{5} c p$
$\frac{s p}{c p}=\frac{7}{5}$
Profit $\%=\frac{2}{5} \times 100$
$=40 \%$

## S29. Ans.(a)

Sol. A.T.Q
C.P $4=3$ S.P
$\frac{C \cdot P}{S . P}=\frac{3}{4}$
Profit $=4-3=1$
$\%=\frac{1}{3} \times 100$
$=33 \frac{1}{3} \%$

## S30. Ans.(b)

## Sol.

CP = Rs. 2500
$\mathrm{MP}=\frac{115}{100} \times 2500=$ Rs 2875
D $=345$
D $\%=\frac{345}{2875} \times 100=12 \%$

S31. Ans.(b)
Sol.
$\frac{3600}{3150}=\frac{120 \%}{x \%}$
$\Rightarrow x=105 \%$
Therefore, Profit $=5 \%$

## S32. Ans.(c)

## Sol.

Total $\mathrm{CP}=10+15=25$
Total SP=2×15=30
Profit \% $=\frac{30-25}{25} \times 100$
$=20 \%$

## S33. Ans.(c)

## Sol.

Let original price be $x$.
$80 \%$ of $x=596$
$\Rightarrow x=596 \times \frac{100}{80}$
$\Rightarrow x=745$

## S34. Ans.(c)

Sol.

$$
\frac{S P}{M P}=\frac{80}{100}=\frac{4}{5}=\frac{24}{30}
$$

Therefore, Marked price $=30$

$$
\text { New SP }=30 \times \frac{70}{100}
$$

$$
=\text { Rs. } 21
$$



S35. Ans.(a)
Sol.
Profit Percentage $=\frac{\text { Profit }}{\text { Cost Price }} \times 100$ $=\frac{200}{800} \times 100$
$=25 \%$

S36. Ans.(c)

## Sol.

Cost Price:
$1000 \rightarrow 200$ oranges
$100 \rightarrow 20$ oranges

Number of oranges to be sold $=20 \times \frac{100}{125}$ $=16$

## S37. Ans.(c)

Sol.
Loss \% $=\frac{1}{4} \times C P$
$\Rightarrow \frac{C P-S P}{C P} \times 100=\frac{1}{4} \times C P$
$\Rightarrow 400(C P-96)=C P^{2}$
$\Rightarrow C P^{2}-400 C P+38400=0$
$\Rightarrow(C P-160)(C P-240)=0$
$\Rightarrow C P=$ Rs. 160 or Rs. 240

## S38. Ans.(b)

## Sol.

$$
20 \%=\frac{1}{5}=\frac{\text { Water }}{\text { Milk }}
$$

Percentage of milk in mixture $=\frac{5}{6} \times 100$ $=\frac{250}{3} \%$

## S39. Ans.(c)

## Sol.

$\frac{\text { Final Value }}{\text { Initial Value }}=\frac{9}{10} \times \frac{8}{10} \times \frac{6}{10}=\frac{432}{1000}$
Discount $\%=\frac{1000-432}{1000} \times 100$
$=56.8 \%$

S40. Ans.(c)
Sol.
Gain $\%=\frac{20}{90} \times 100$
$=22 \frac{2}{9} \%$

## S41. Ans.(d)

Sol.
Let,
S.P. = Rs. 100
C.P. $=$ Rs. 80
$\therefore$ Gain $=$ Rs. 20
$\therefore$ Gain per cent $=\frac{20}{80} * 100=25 \%$

S42. Ans.(d)
Sol.
Let the C.P. of article be Rs. $x$.
According to the question,
$\rightarrow 425-x=x-355$
$\rightarrow 2 x=425+355=780$
$\rightarrow x=\frac{780}{2}=$ Rs. 390

## S43. Ans.(a)

Sol.
Let the C.P. of article be Rs. $x$. According to the question,
$\rightarrow 78-x=2(69-x)$
$\rightarrow 78-x=138-2 x$
$\rightarrow 2 x-x=138-78$
$\rightarrow x=$ Rs. 60


Sure Success Batch 2023 Start Oct 3, 2023

S44. Ans.(c)
Sol.
Let 40 articles (LCM of 8 and 10) be bought.
$\therefore$ C.P of 40 articles $=\frac{8 * 40}{10} \rightarrow$ Rs. 32
Their S.P. $=\frac{10 * 40}{8} \rightarrow$ Rs. 50
$\therefore$ Profit percent $=\frac{50-32}{32} * 100$
$=\frac{1800}{32} \rightarrow 56.25 \%$

## S45. Ans.(d)

## Sol.

The S.P. after the first discount
of $5 \%$ on $₹ 80=₹\left(80-\frac{5 \times 80}{100}\right)$
$=₹(80-4)=₹ 76$
Again, after 5\% discount on ₹ 76,
S.P. $=₹\left(76-\frac{5 \times 76}{100}\right)$
$=₹(76-3.80)=₹ 72.20$

S46. Ans.(b)
Sol.

$$
\begin{aligned}
& \frac{\mathrm{M}_{1} \mathrm{D}_{1} \mathrm{~T}_{1}}{\mathrm{~W}_{1}}=\frac{\mathrm{M}_{2} \mathrm{D}_{2} \mathrm{~T}_{2}}{\mathrm{~W}_{2}} \\
& \Rightarrow \frac{7 \times 7 \times 7}{7}=\frac{5 \times 5 \times 5}{\mathrm{~W}_{2}} \\
& \Rightarrow 49 \times \mathrm{W}_{2}=125 \\
& \Rightarrow \mathrm{~W}_{2}=\frac{125}{49}
\end{aligned}
$$

## S47. Ans.(d)

## Sol.

A's 1 day's work $=\frac{1}{21}$
B's 1 day's work $=\frac{1}{28}$
Total work done by both
$=\frac{1}{21}+\frac{1}{28}=\frac{4+3}{84}=\frac{1}{12}$
$\therefore$ Amount is sufficient to pay 12 days wages of both.

## S48. Ans.(c)

Sol. Efficiency and time taken are inversely proportional.
$\therefore$ Required ratio $=4: 3$

## S49. Ans.(d)

## Sol.

$A$ is twice as good as $B$.
$\therefore$ Time taken by $\mathrm{A}=x$ days
Time taken by $B=2 x$ days
According to the question,
$\rightarrow \frac{1}{x}+\frac{1}{2 x}=\frac{1}{16}$
$\rightarrow \frac{2+1}{2 x}=\frac{1}{16}$
$\rightarrow \mathrm{x}=24$ days

## S50. Ans.(b)

## Sol.

ATQ, A does $20 \%$ less work than B.
$\therefore$ Their efficiency ratio $A: B=4: 5$
$\therefore$ Ratio of time taken A: B $=5: 4$
A completes a work in $\frac{15}{2}$ hours (given)
$\therefore$ Time taken by $B$ to do the same Work
$=\frac{15}{2} * \frac{4}{5}$
$=6$ hours

## S51. Ans.(d)

Sol.
$\mathrm{I}=\frac{12000 \times 8 \times 1}{100}=960$
Desired gain on Rs. $20000=20000 \times \frac{10}{100}=2000$
S.I. on Rs. $8000=2000-960=1040$

Rate $=\frac{\mathrm{S.I} \times 100}{\mathrm{P} \times \mathrm{T}}=\frac{1040 \times 100}{8000}=13 \%$

## S52. Ans.(c)

Sol.

$$
\begin{aligned}
& \mathrm{A}=\mathrm{P}\left(1+\frac{\mathrm{R}}{100}\right)^{\mathrm{T}} \\
& 3=1\left(1+\frac{R}{100}\right)^{3} \\
& 9=1\left(1+\frac{R}{100}\right)^{6}
\end{aligned}
$$

S53. Ans.(b)
Sol.
$\frac{500 \times 4 \times r}{100}+\frac{600 \times 3 \times r}{100}=190$
$38 \mathrm{r}=190$
r $=5 \%$

S54. Ans.(c)
Sol.
$\frac{1 P}{16}=\frac{P \times r \times r}{100}$
$r^{2}=\frac{100}{16}$
$\mathrm{r}=\frac{10}{4}=\frac{5}{2} \%=2 \frac{1}{2} \%$

## S55. Ans.(a)

Sol.
First part $=x$ and second part $=94-x$
$\rightarrow \frac{\frac{x}{5}}{\frac{94-x}{8}}=\frac{3}{4}$
$\rightarrow \frac{x}{5} * \frac{8}{94-x}=\frac{3}{4}$
$47 x=15^{*} 94$
$x=30$

## S56. Ans.(c)

Sol.
$\frac{8 x}{100}=\frac{4 y}{100}$
$\rightarrow y=2 x$
$\therefore 20 \%$ of $x=10 \%$ of $y$.

## S57. Ans.(d)

## Sol.

Required number

$$
\begin{aligned}
& =\frac{240 \times 25}{100}-\frac{160 \times 15}{100} \\
& =60-24=36
\end{aligned}
$$

S58. Ans.(a)

## Sol.

Percentage of children
$=(100-54-32) \%$
= 14\%
According to the question,
$\because 14 \% \equiv 196$
$\therefore 1 \% \equiv 14$
$\therefore 54 \% \equiv 54 \times 14 \rightarrow 756 \mathrm{men}$

## S59. Ans. (b)

## Sol.

Suppose income of A = Rs. 100
$\therefore$ Income of B = Rs. 125
Income of C = Rs. 150
$\therefore$ Required percentage $=\frac{50 * 100}{100}$
= 50\%

## S60. Ans.(d)

Sol.
required per cent
$=\frac{11}{10} \times 100$
$=110 \%$

## S61. Ans.(a)

## Sol.

$$
\begin{aligned}
& A+B+C+D+E=200 \\
& A+B=70 \\
& C+D=84 \\
& E=200-70-84 \\
& =200-154 \\
& =46
\end{aligned}
$$

## S62. Ans.(d)

## Sol.

Let the last number be $x$.
According to the question,
$\rightarrow 18 \times 10+11 \times 20+x=30 \times 15$
$\rightarrow 180+220+x=450$
$\rightarrow 400+x=450$
$\rightarrow x=450-400=50$

## S63. Ans.(c)

Sol.
Weight of new person
$=(65+8 \times 2.5) \mathrm{kg}$
$=(65+20) \mathrm{kg}$
$=85 \mathrm{~kg}$

## S64. Ans.(d)

## Sol.

Number of natural numbers $=x$
$\therefore$ Their sum $=15 x$
According to the question,
$\rightarrow 15 x+30-5=x \times 17.5$
$\rightarrow 17.5 x-15 x=25$
$\rightarrow 2.5 x=25$
$\rightarrow x=\frac{25}{2.5}=10$

## S65. Ans.(d)

Sol.


A : B
4


## S66. Ans.(b)

Sol.
Let the number of runs scored in 11th innings be $x$.
$\therefore 10 \times 50+x=11 \times 52$
$\rightarrow 500+x=572$
$\rightarrow x=572-500 \rightarrow 72$ runs

## S67. Ans.(b)

Sol. Total marks of 28 students in Mathematics $=28$ x $50=1400$
New number of students $=28-8=20$
New average of marks in Mathematics $=50+5=55$
$\therefore$ Total marks of 20 students in Mathematics $=20 \mathrm{x}$ $55=1100$
$\therefore$ Total marks of 8 students who left the school $=$ 1400-1100 = 300
$\therefore$ Average marks of these 8 students $=300 / 8=37.5$

## S68. Ans.(c)

## Sol.

Change $=2 \times 3-3 \times 4=-6$
$\therefore$ New average $=32-\frac{6}{6} \rightarrow 31$

## S69. Ans.(d)

## Sol.

New average age of class
$=\frac{20 * 12+5 * 7}{25}$
$=\frac{275}{25} \rightarrow 11$ years

## S70. Ans.(d)

Sol. To find the mean of the first 10 whole numbers, we will find the sum of numbers from 0 to 9 as $0-9$ are the first 10 whole numbers.

So, the sum of the first 10 whole numbers is $0+1+2+3+4+5+6+7+8+9=45$.
we get, mean $=45 / 10=4.5$
Hence, the mean of the first 10 whole numbers is 4.5.

## S71. Ans.(b)

## Sol.

In 60 liters of solution, Water
$=\frac{60 * 20}{100} \rightarrow 12$ liters
On adding $x$ liters of water,
$\frac{12+x}{60+x} \times 100=40$
$\rightarrow 60+5 x=120+2 x$
$\rightarrow 3 x=60$
$\rightarrow x=20$ liters

## S72. Ans.(c)

## Sol.

Reduction in consumption

$$
\begin{aligned}
& =\left\{\frac{\mathrm{R}}{100+\mathrm{R}} \times 100\right\} \% \\
& =\left(\frac{20}{120} \times 100\right) \% \\
& =\frac{50}{3} \%=16 \frac{2}{3} \%
\end{aligned}
$$

S73. Ans.(c)
Sol. A student has to obtain 33\% of the total marks to pass. He got 125 marks and failed by 40 marks.
Let maximum mark be X
According to the question,
$\Rightarrow 33 \%$ of $\mathrm{X}=125+40$
$\Rightarrow 33 \mathrm{X}=165 \times 100$
$\Rightarrow \mathrm{X}=16500 / 33$
$\Rightarrow \mathrm{x}=500$

## S74. Ans.(a)

Sol.
The net change in price

$$
\begin{aligned}
& =\left(-25+20-\frac{25 \times 20}{100}\right) \% \\
& =(-25+20-5) \%=-10 \%
\end{aligned}
$$

Negative sign shows decrease.

## S75. Ans.(d)

## Sol.

Let total employees $=100$
$\therefore$ Required percentage
$=\frac{40 * 40}{100}+\frac{60 * 60}{100}$
$=16+36$
= $52 \%$

## S76. Ans.(c)

Sol.
$\frac{8 x}{100}=\frac{4 y}{100}$
$\rightarrow y=2 x$
$\therefore 20 \%$ of $x=10 \%$ of $y$.

## S77. Ans.(d)

Sol.
Required number
$=\frac{240 \times 25}{100}-\frac{160 \times 15}{100}$
$=60-24=36$

## S78. Ans.(a)

## Sol.

Percentage of children
$=(100-54-32) \%$
$=14 \%$
According to the question,
$\because 14 \% \equiv 196$
$\therefore 1 \% \equiv 14$
$\therefore 54 \% \equiv 54 \times 14 \rightarrow 756 \mathrm{men}$

## S79. Ans.(b)

## Sol.

Suppose income of A = Rs. 100
$\therefore$ Income of B = Rs. 125
Income of C = Rs. 150
$\therefore$ Required percentage $=\frac{50 * 100}{100}$
= 50\%

S80. Ans.(d)
Sol.
required per cent
$=\frac{11}{10} \times 100$
= $110 \%$

## S81. Ans.(a)

## Sol.

Let the number $=3 \mathrm{k}$
According to the question
$9 \mathrm{k}-\mathrm{k}=24$
$\Rightarrow \mathrm{k}=3$
Desired number $=3 \mathrm{k}=3 \times 3=9$

## S82. Ans.(c)

Sol.
$432=2 \times 2 \times 2 \times 2 \times 3 \times 3 \times 3$
$594=2 \times 3 \times 3 \times 3 \times 11$
$702=2 \times 3 \times 3 \times 3 \times 13$
Their HCF $=2 \times 3 \times 3 \times 3=54$
Cans for first variety of oil $=\frac{432}{54} \rightarrow 8$
Cans for 2nd variety of oil $=\frac{594}{54} \rightarrow 11$
Cans for 3rd variety of oil $=\frac{702}{54} \rightarrow 13$

## S83. Ans.(a)

## Sol.

Let the average of first three numbers $=4 \mathrm{~A}$ $\Rightarrow$ the 4 th number $=A$
Sum of first three numbers $=4 \mathrm{~A} \times 3=12 \mathrm{~A}$
According to the question
$\frac{12 A+A}{4}=52$
$\Rightarrow A=16$
Average of first three numbers $=4 \times 16=64$

## S84. Ans.(a)

Sol.
Total CP $=1200+1600=$ Rs. 2800
$25 \%=1 / 4$
Let the total CP $=4$ unit
$\Rightarrow$ Total SP $=5$ unit
According to the question
4 unit $=2800$
1 unit $=700$
5 unit $=5 \times 700=$ Rs. 3500
SP of 2nd article $=3500-1380=$ Rs. 2120
\%age Profit earned on 2nd article
$=\frac{2120-1600}{1600} \times 100=32.5 \%$

## S85. Ans.(d)

## Sol.

$$
\begin{aligned}
& \text { Principal }=\frac{\text { S.I. } \times 100}{\text { Time } \times \text { Rate }} \\
= & \frac{\mathrm{R} \times 100}{2 \times \mathrm{R}}=\text { Rs. } 50
\end{aligned}
$$

S86. Ans.(c)

## Sol.

Let the cost price be Rs. 100.
$\therefore$ Marked price $=(100+15 \%$ of 100$)=$ Rs. 115
The goods are sold at the discount of $12 \%$.
$\therefore$ S.P. $=(115-12 \%$ of 115$)$
$=(115-13.80)=$ Rs. 101.20
Profit $=(101.20-100)=$ Rs. 1.20
$\therefore$ Profit $\%=\frac{1.20}{100} \times 100=1.2 \%$
$=1 \frac{2}{10}=1 \frac{1}{5} \%$

S87. Ans.(c)

## Sol.

If the number be $x$, then

$$
\begin{aligned}
& x-15=\frac{4 x}{5} \\
& \Rightarrow 5 x-75=4 x \Rightarrow x=75 \\
& \therefore 40 \% \text { of } 75=\frac{75 \times 40}{100}=30
\end{aligned}
$$

## S88. Ans.(b)

## Sol.

Sum of the ages of four brothers $=15 \times 4=60$
Let the age of father $=k$
According to the question
$\frac{60+k}{5}=20$
$\Rightarrow \mathrm{k}=40$

## S89. Ans.(b)

Sol.
According to the question
$(60-20) \%=120$
$1 \%=3$
$\left(33 \frac{1}{3}-28\right) \%=3 \times \frac{16}{3}=16$

## S90. Ans.(b)

## Sol.

Let the principal = P
According to the question
$100=\frac{P * 10 * \frac{1}{2}}{100}$
$\Rightarrow \mathrm{P}=$ Rs. 2000

## S91. Ans.(b);

## Sol.

5th reading $=(5 \times 12)+(5 \times 15)-(9 \times 10)=45$

## S92. Ans.(d);

## Sol.

Let Raj paid Rs x for the bicycle.
Pawan paid $=1.25 \mathrm{x}$, Dinkar paid $=1.25 \mathrm{x} \times 1.2=156$
$\Rightarrow 1.50 \mathrm{x}=156 \Rightarrow \mathrm{x}=$ ` Rs 104

## S93. Ans. (b)

Sol.
$x+y=7(x-y)$ or $6 x-8 y=0$ $\qquad$ (i)
$x+5+y+5=9(x-y)$
$8 \mathrm{x}-10 \mathrm{y}=10$ $\qquad$ (ii)

After solving (i) \& (ii)
$\mathrm{x}=20$ year
$\mathrm{y}=15$ year

## S94. Ans.(c)

## Sol.

Let the required number be $x$. Then,
$x^{2}+5^{2}=386$
$\rightarrow x^{2}=386-25$
$\rightarrow x^{2}=361$
$\rightarrow x=19$

## S95. Ans.(a)

Sol.
Marks obtained by eleventh candidate
$=22 \times 45-(10 \times 55+11 \times 40)$
$=990-(550+440)$
$=990-990=0$

## S96. Ans.(c)

Sol.
Let the original number of students in three classes be $2 x, 3 x$ and $5 x$ respectively.
As given,
$\frac{2 x+20}{3 x+20}=\frac{4}{5}$
$\rightarrow 10 x+100=12 x+80$
$\rightarrow 12 x-10 x=100-80$
$\rightarrow 2 x=20$
$\rightarrow x=10$
$\therefore$ Total number of students originally
$=2 x+3 x+5 x$
$=10 \mathrm{x}$
$=10 \times 10 \rightarrow 100$

## S97. Ans.(b)

Sol.
C.P. of 50 pairs of shoes
$=$ Rs. $(50 \times 189.50)$
$=$ Rs. 9475
Their S.P. = Rs. 10000
Gain $=$ Rs. $(10000-9475)=$ Rs. 525

S98. Ans.(d)
Sol.
$\frac{P * r * 1}{100}=\frac{P * 5 * 2}{100}$
$\rightarrow$ [ $\because$ Capital is same in both cases]
$\rightarrow \mathrm{r} \times 1=5 \times 2$
$\rightarrow r=10 \%$

## S99. Ans.(a)

## Sol.

( $x$ and $y$ )'s 1 hour work
$=\frac{1}{4}+\frac{1}{8}=\frac{3}{8}$
$\therefore$ Required time $=\frac{8}{3}$ hours
$=\left(\frac{8}{3} * 60\right)$ minutes
= 160 minutes

S100. Ans.(d)
Sol.
30.5 kmph
$\rightarrow\left(30.6 * \frac{5}{18}\right) \mathrm{m} / \mathrm{sec}$.
$\rightarrow 8.5 \mathrm{~m} / \mathrm{sec}$.


