

**SOLVED PAPER**  
**SSC COMBINED GRADUATE LEVEL**  
**PRELIM EXAM**

**Held on: 19.06.2011 (First Sitting)**

**PART-A: GENERAL INTELLIGENCE &  
REASONING**

**Directions (1-9):** In each of the following questions select the related letters/word/number from the given alternatives.

1. CFIL : ORUX :: GDJM : ?  
(a) HJLN (b) NQST  
(c) PSVY (d) RTVX
2. BEHK : YVSP :: DGJM : ?  
(a) JGDA (b) ROLI  
(c) WTQN (d) ZWTQ
3. 24 : 60 :: 120 : ?  
(a) 160 (b) 220  
(c) 300 (d) 108
4. 392 : 28 :: 722 : ?  
(a) 18 (b) 28  
(c) 38 (d) 48
5. 123 : 36 :: 221 : ?  
(a) 52 (b) 69  
(c) 72 (d) 25
6. Timid : Ass :: Cunning : ?  
(a) Ant (b) Fox  
(c) Rabbit (d) Horse
7. Ecstasy : Gloom :: ?  
(a) Congratulations : Occasion  
(b) Diligent : Successful  
(c) Measure : Scale  
(d) Humiliation : Exaltation

8. Architect : Building :: Sculptor : ?  
(a) Museum (b) Stone  
(c) Chisel (d) Statue
9. MKQO : LNPR :: ? XVTZ  
(a) YSUW (b) SWWY  
(c) VTWY (d) WYTS

**Directions (10-15):** In each of the following questions, find the odd number/letters/word from the given alternatives.

10. (a) PQXZ (b) BCQN  
(c) ABDF (d) MNPR
11. (a) ABYZ (b) CDWX  
(c) EFUV (d) GHTV
12. (a) 626 (b) 841  
(c) 962 (d) 1090
13. (a) 5720 (b) 6710  
(c) 2640 (d) 4270
14. (a) Swimming (b) Sailing  
(c) Dividing (d) Driving
15. (a) Perception (b) Discernment  
(c) Penetration (d) Insinuation

**Directions:** In the following question from among the given alternative select the one in which the set of numbers is most like the set of number given in the questions.

Give Set: (4, 25, 81)

16. (a) (4, 36, 79) (b) (9, 48, 81)  
(c) (16, 64, 100) (d) (9, 49, 143) [www.examrace.com](http://www.examrace.com)

17. In the following question, number of letters are skipped in between by a particular rule. Which of the following series observes the rule?
- (a) BAFHTU                      (b) ACEGJL  
(c) ACFJOU                      (d) ADFHJL

**Directions:** In the following question, which one of the given response would be a meaningful order of the following?

18. (1) Ocean                      (2) Rivulet  
(3) Sea                          (4) Glacier  
(5) River
- (a) 5,2,3,1,4                      (b) 4,2,5,3,1  
(c) 5,2,3,4,1                      (d) 4,2,1,3,5

**Directions:** Arrange the following words as per order in the dictionary.

19. (1) Preposition  
(2) Preperatively  
(3) Preposterous  
(4) Preponderate  
(5) Prepossess
- (a) 2,4,1,5,3                      (b) 1,5,2,4,3  
(c) 5,4,2,3,1                      (d) 4,2,5,1,3
20. Which one of set of letters when sequentially placed at the gaps in the given letter series shall complete it?  
Ac\_\_cab\_\_baca\_\_aba\_\_aca\_\_
- (a) acbcc                          (b) aacbc  
(c) babbb                          (d) bcbba

**Directions (21-24):** In each of the following questions, a series is given, with one/two term(s) missing. Choose the correct alternative from the given ones that will complete the series.

21. \_\_?\_DREQ, GUHT, JXKW
- (a) EFRS                          (b) TGSF  
(c) JWWI                          (d) AOBN
22. 56, 90, 132, 184, 248, \_\_?\_\_
- (a) 368                              (b) 316  
(c) 362                              (d) 326

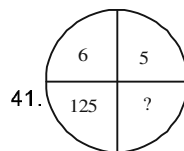
23. 0, 4, 8, 24, 64, 176, \_\_?\_\_
- (a) 180                              (b) 480  
(c) 280                              (d) 300
24. WTPMIFB \_\_?\_\_?\_\_?\_\_
- (a) ZV                                (b) XU  
(c) YU                                (d) YV
25. Mrs. Sushella celebrated her wedding anniversary on Tuesday, 30<sup>th</sup> September 1997. When will she celebrate her next wedding anniversary on the same day?
- (a) 30 September 2003  
(b) 30 September 2004  
(c) 30 September 2002  
(d) 30 October 2003
26. A clock gains five minutes every hour. What will be the angle traversed by the second hand in one minute?
- (a) 360°                              (b) 360.5°  
(c) 390°                              (d) 380°
27. B is twice as odd as A but twice younger than F. C is half the age of A but is twice older than D. Who is the second oldest?
- (a) B                                  (b) F  
(c) D                                  (d) C
28. A two member committee comprising of one male and one female member is to be constituted out of five males and three females. Amongst the females, Ms. A refuses to be a member of the committee in which Mr. B is taken as the member. In how many different ways can the committee be constituted?
- (a) 11                                  (b) 12  
(c) 13                                  (d) 14
29. Find the wrong number in the series.  
6, 12, 21, 32, 45, 60
- (a) 6                                  (b) 12  
(c) 21                                  (d) 32
30. Ramesh ranks 13<sup>th</sup> in a class of 33 students. There are 5 students below Suresh rankwise. How many students are there between Ramesh and Suresh?
- (a) 12                                  (b) 14  
(c) 15                                  (d) 16

31. Naresh's age is 4 years less than twice the age of his brother. Which of the following represents the equation to find his age?  
 (a)  $2x + 4$  (b)  $4x + 2$   
 (c)  $x - 4$  (d)  $2x - 4$
32. Suresh's sister is the wife of Ram. Ram is Rani's brother. Ram's father is Madhur. Sheetal is Ram's grandmother. Rema is Sheetal's daughter-in-law. Rema is Sheetal's daughter-in-law. Rohit is Rani's brother's son. Who is Rohit to Suresh?  
 (a) Brother-in-law (b) Son  
 (c) Brother (d) Nephew
33. In a survey, 70% of those surveyed owned a car and 75% of those surveyed owned a TV. If 55% owned both a car and a TV, what percent of those surveyed did not own either a car or a TV?  
 (a) 25% (b) 20%  
 (c) 10% (d) 5%
34. If DANCE is coded as GXQZH then how will RIGHT be coded?  
 (a) UFJEW (b) SGKFX  
 (c) UFJWE (d) UFWJE
35. If LOSE is coded as 1357 and GAIN is coded as 2468, what do the figures 84615 stand for?  
 (a) NAILS (b) SNAIL  
 (c) LANES (d) SLAIN
36. A statement is given followed by four alternative arguments. Select the alternative which is most appropriate.  
 Statements:  
 Is it necessary that education should be job oriented?  
 Arguments:  
 I. Yes, the aim of education is to prepare person for earning.  
 II. Yes, educated person should stand on his own feet after completion of education.  
 III. No, education should be for sake of knowledge only.

**IV. No, one may take up agriculture where education is not necessary.**

- (a) Only I and II arguments are strong  
 (b) Only III and IV argument are strong  
 (c) Only I argument is strong  
 (d) Only I and III arguments are strong
37. A man started walking West. He turned right, then right again and finally turned left. Towards which direction was he walking now?  
 (a) North (b) South  
 (c) West (d) East
38. Sudha travels 8 km to the South. Then she turns to the right and walks 4 km. Then again she turns to her right and moves 8 km forward. How many km away is she from the starting point?  
 (a) 7 (b) 6  
 (c) 4 (d) 8
39. From the given alternative words, select the word which *cannot* be formed using the letters of the given words: 'COMPREHENSION'  
 (a) MUTUAL (b) LIMITATION  
 (c) ONION (d) PREACH
40. From the given alternative words, select the word which can be formed using the letters of the given word: 'MULTIPLICATION'  
 (a) MUTUAL (b) LIMITATION  
 (c) APPLICATION (d) NOTION

**Directions (41-42):** In each of the following questions, select the missing number from the given response.



- (a) 127 (b) 31  
 (c) 217 (d) 328

2	1	2
21	22	?
1	2	5
20	23	43

42.

- (a) 40 (b) 48  
(c) 50 (d) 36

43. If '-' stands for division '+' stands for subtraction, '÷' stands for multiplication, '×' stands for addition, then which one of the following equations is correct?

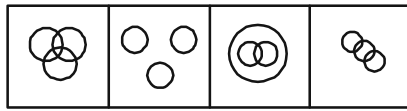
- (a)  $70 - 2 + 4 \div 5 \times 6 = 44$   
(b)  $70 - 2 + 4 \div 5 \times 6 = 21$   
(c)  $70 - 2 + 4 \div 5 \times 6 = 341$   
(d)  $70 - 2 + 4 \div 5 \times 6 = 36$

44. The school result is increasing year after year. Forecast the result of 2012 from the following information.

Year	2006	2007	2008	2009	2010	2011	2012
Result	34.25%	36.75%	39.75%	43.25%	47.25%	51.75%	?

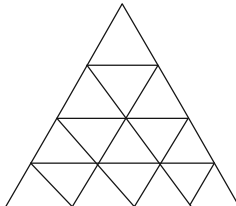
- (a) 51.75% (b) 56.75%  
(c) 48.00% (d) 57.25%

45. Which diagram correctly represents the relationship between politicians, poets and women?



- (a) (b) (c) (d)

46. How many triangles are there in the following figures?



- (a) 29 (b) 27  
(c) 23 (d) 30

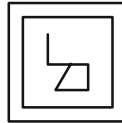
47. Some equations are solved on the basis of a certain system. Find the correct answer for the unsolved equation on that basis.

If  $324 \times 289 = 35$ ,  $441 \times 484 = 43$ ,  
 $625 \times 400 = 45$ , find the value of  $256 \times 729$ .

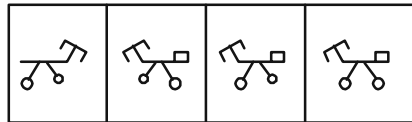
- (a) 33 (b) 35  
(c) 43 (d) 34

**Directions:** From the given answer figures, select the one in which the question figures is hidden/embedded.

48. Question Figure:



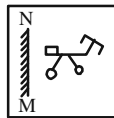
Answer figures:



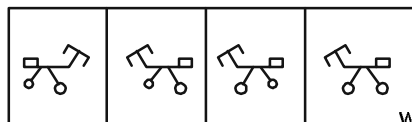
- (a) (b) (c) (d)

**Directions:** If a mirror is placed on the line MN, then which of the answer figures is the correct image of the given question figure?

49. Question Figure:



Answer figures:



- (a) (b) (c) (d)

**PART – B**  
**GENERAL AWARENESS**

51. In the budget for 2011-2012, the fiscal deficit (% of GDP) for 2011-2012 has been projected at  
(a) 5.1 (b) 5.0  
(c) 4.6 (d) 3.4
52. Which was described by Dr. B.R. Ambedkar as the 'heart and soul' of the Constitution?  
(a) Right to Equality  
(b) Right against Exploitation  
(c) Right to Constitutional Remedies  
(d) Rights to Freedom of Religion
53. Which is not the concern of the local government?  
(a) Public Health  
(b) Sanitation  
(c) Law and order  
(d) Public Utility Services
54. In India, the concept of single citizenship is adopted from  
(a) England (b) U.S.A.  
(c) Canada (d) France
55. Who had proposed partyless democracy in India?  
(a) Jaya Prakash Narayan  
(b) Mahatma Gandhi  
(c) Vinoba Bhave  
(d) S.A. Dange
56. Disinvestment in Public Sector is called  
(a) Liberalisation  
(b) Globalisation  
(c) Industrialisation  
(d) Privatisation
57. 'Darwin finches' refers to a group of  
(a) Fishes (b) Lizards  
(c) Birds (d) Amphibians
58. An individual's actual standard of living can be assessed by  
(a) Gross National Income  
(b) Net National Income  
(c) Per Capita Income  
(d) Disposable Personal Income
59. As announced by the Finance Minister in his Budget speech on 28<sup>th</sup> February 2011, with a view to assist States in modernising their stamp and registration administration, E-stamping is expected to be rolled out in all the districts of different States in a period of  
(a) one year (b) two year  
(c) three year (d) five year
60. Which Sikh Guru called himself the 'Sachcha Badshah'?  
(a) Guru Gobind Singh  
(b) Guru Hargobind  
(c) Guru Tegh Bahadur  
(d) Guru Arjun Dev
61. The Civil Disobedience Movement was launched by Mahatma Gandhi in  
(a) 1928 (b) 1930  
(c) 1931 (d) 1922
62. What is the maximum strength prescribed for State Legislative Assemblies?  
(a) 350 (b) 600  
(c) 500 (d) 750
63. Fa-hien visited India during the reign of  
(a) Chandragupta II  
(b) Samudragupta  
(c) Ramagupta  
(d) Kumaragupta
64. At which place in Bengal was the East India Company given permission to trade and build a factory by the Mughals in 1651?  
(a) Calcutta  
(b) Cassim Bazar  
(c) Singur  
(d) Burdwan
65. Diu is an island off  
(a) Daman  
(b) Goa  
(c) Gujarat  
(d) Maharashtra
66. Which from the following is a land-locked sea?  
(a) Red Sea (b) Timor Sea  
(c) North Sea  
(d) Aral Sea

67. Shivasamudram Falls is found in the course of river  
 (a) Krishna (b) Godavari  
 (c) Cauvery (d) Mahanandi
68. Who gave the slogan "Inquilab Zindabad"?  
 (a) Chandrashekhar Azad  
 (b) Subhash Chandra Bose  
 (c) Bhagat Singh  
 (d) Iqbal
69. The position of India Railways network in the world is  
 (a) second (b) third  
 (c) fourth (d) fifth
70. The oldest international airline is  
 (a) Dutch. KLM  
 (b) Air Canada  
 (c) Qantas Airways  
 (d) Air Sahara
71. Which of the following can be used to absorb neutrons to control the chain reaction during nuclear fission?  
 (a) Boron (b) Heavy water  
 (c) Uranium (d) Plutonium
72. Hydrogen bomb is based on the principle of  
 (a) controlled fission reaction  
 (b) uncontrolled fission reaction  
 (c) controlled fusion reaction  
 (d) uncontrolled fusion reaction
73. Troposphere is the hottest part of the atmosphere because  
 (a) it is closest to the Sun  
 (b) there are charged particles in it  
 (c) it is heated by the Earth's surface  
 (d) heat is generated in it
74. The outermost layer of the Sun is called  
 (a) Chromosphere  
 (b) Photosphere  
 (c) Corona  
 (d) Lithosphere
75. Where was India's computer installed?  
 (a) Indian Institute of Technology, Delhi  
 (b) Indian Institute of Science, Bangalore  
 (c) Indian Iron & Steel Co. Ltd., Burnpur  
 (d) Indian Statistical Institute, Calcutta
76. The dried flower buds are used as a spice in  
 (a) Cardamom (b) Cinnamon  
 (c) Cloves (d) Saffron
77. The tissue in man where no cell division occurs after birth is  
 (a) skeletal (b) nerves  
 (c) connective (d) germinal
78. DNA fingerprinting is used to identify the  
 (a) Parents (b) Rapist  
 (c) Thieves (d) All the above
79. The normal cholesterol level in human blood is  
 (a) 80 – 120 mg%  
 (b) 120 – 140 mg%  
 (c) 140 – 180 mg%  
 (d) 180 – 200 mg%
80. Which of the following are warm-blooded animals?  
 (a) Whales  
 (b) Whale Sharks  
 (c) Alytes  
 (d) Draco
81. Syrinx is the voice box in  
 (a) Amphibians (b) Reptiles  
 (c) Birds (d) Mammals
82. The largest ecosystem of the Earth is  
 (a) Biome (b) Hydrosphere  
 (c) Lithosphere (d) Biosphere
83. In a food chain, the solar energy utilized by plants is only  
 (a) 10 per cent  
 (b) 1 per cent  
 (c) 0.1 per cent  
 (d) 0.01 per cent
84. Supersonic jet causes pollution by thinning of  
 (a) O<sub>3</sub> layer (b) O<sub>2</sub> layer  
 (c) SO<sub>2</sub> layer (d) CO<sub>2</sub> layer
85. OTEC stand for  
 (a) Ocean Thermal Energy Conservation  
 (b) Oil and Thermal Energy Conservation  
 (c) Ocean Thermal Energy Conversion  
 (d) Ocean Thermal Energy Conversion

86. As per Railway Budget for 2011-2012, the senior citizen concession for men has been increased from
- 25 % to 30%
  - 30 % to 40%
  - 40 % to 50%
  - 30 % to 50%
87. The monster earthquake-cum-tsunami which hit Japan on March, 11, 2011 has moved the country's main island, Honshu, by about
- two feet
  - three feet
  - five feet
  - eight feet
88. What is the commonly used unit for measuring the speed of data transmission?
- Mega Hertz
  - Character per second
  - Bits per second
  - Nano seconds
89. Which type of reaction produces the most harmful radiation?
- Fusion reaction
  - Fission reaction
  - Chemical reaction
  - Photo-Chemical reaction
90. Which type of glass is used for making glass reinforced plastic?
- Pyrex glass
  - Flint glass
  - Quartz glass
  - Fibre glass
91. Which of the following metals causes Itai-Itai disease?
- Cadmium
  - Chromium
  - Cobalt
  - Copper
92. Glycol is added to aviation gasoline because it
- reduces evaporation of petrol
  - increases efficiency of petrol
  - prevents freezing of petrol
  - reduces consumption of petrol
93. Who invented penicillin?
- Alexander Fleming
  - Louis Pasteur
  - Dresser
  - Edward Jenner
94. 2018 FIFA World Cup would be held in
- Russia
  - Qatar
  - France
  - Netherlands
95. Who of the following was **not** the recipient of Nobel Prize in Economics 2010?
- Peter A. Diamond
  - Christopher Pissarides
  - Liu Xiaobo
  - Dale Mortensen
96. Which troubled model was recalled recently by the Indian automobile giant Maruti Suzuki for replacement of faulty fuel pump gasket?
- Maruti 800
  - Maruti A-Star
  - Wagon R
  - Baleno
97. As a part of Human Resource Development Ministry's 'brain gain' policy to attract global talent, 14 world class universities to attract global talents are proposed to be set up in various states. Name the state from the following where no university of the aforesaid type is proposed to be located.
- Punjab
  - Bihar
  - Rajasthan
  - Uttaranchal
98. Who discovered South Pole?
- Robert Peary
  - Amundsen
  - John Cabot
  - Tasman
99. Which of the following folk dances is associated with Rajasthan?
- Rauf
  - Jhora
  - Veedhi
  - Suisini
100. Which of the following books is authored by V.S. Naipal?
- The Rediscovery of India
  - A House for Mr. Biswas
  - Witness the Night
  - Tender Hooks

**PART – C**  
**NUMERICAL APTITUDE**

101. If  $p = 124$ ,  $\sqrt[3]{p(p^2 + 3p + 3) + 1} = ?$

- (a) 5 (b) 7  
(c) 123 (d) 125

102. If  $\sqrt{1 - \frac{x^3}{100}} = \frac{3}{5}$ , then x equals

- (a) 2 (b) 4  
(c) 16 (d)  $(136)^{1/3}$

103. I multiplied a natural number by 18 and another by 21 and added the products. Which one of the following could be the sum?

- (a) 2007 (b) 2008  
(c) 2006 (d) 2002

104. The product of two numbers is 45 and their difference is 4. The sum of squares of the two numbers is

- (a) 135 (b) 240  
(c) 73 (d) 106

105.  $\sqrt{8 + \sqrt{57 + \sqrt{38 + \sqrt{108 + \sqrt{169}}}}} = ?$

- (a) 4 (b) 6  
(c) 8 (d) 10

106. The square root of  $14 + 6\sqrt{5}$  is

- (a)  $2 + \sqrt{5}$  (b)  $3 + \sqrt{5}$   
(c)  $5 + \sqrt{3}$  (d)  $3 + 2\sqrt{5}$

107. When  $2^{31}$  is divided by 5 the remainder is

- (a) 4 (b) 3  
(c) 2 (d) 1

$$1 + \frac{1}{1 + \frac{1}{1 + \frac{1}{1 + \frac{1}{1 + \frac{2}{3}}}}}$$

108. The value of

(a)  $\frac{21}{13}$  (b)  $\frac{17}{3}$

(c)  $\frac{34}{21}$  (d)  $\frac{8}{5}$

109. The unit digit in the product  $(122)^{173}$  is

- (a) 2 (b) 4  
(c) 6 (d) 8

110. The value of  $\frac{2 + \sqrt{3}}{2 - \sqrt{3}} + \frac{2 - \sqrt{3}}{2 + \sqrt{3}} + \frac{\sqrt{3} + 1}{\sqrt{3} - 1}$  is

- (a)  $16 + \sqrt{3}$  (b)  $4 - \sqrt{3}$   
(c)  $2 - \sqrt{3}$  (d)  $2 + \sqrt{3}$

111. If  $a * b = 2a + 3b - ab$ , then the value of  $(3 * 5 + 5 * 3)$  is

- (a) 10 (b) 6  
(c) 4 (d) 2

112. Simplify:

$$\frac{0.0347 \times 0.0347 \times 0.0347 + (0.9653)^3}{(0.0347)^2 - (0.347) + (0.09653)^2}$$

- (a) 0.9306 (b) 1.0009  
(c) 1.0050 (d) 15

113. A copper wire is bent in the form of an equilateral triangle, and has area  $121\sqrt{3}$  cm<sup>2</sup>.

If the same wire is bent into the form of a circle, the area (in cm<sup>2</sup>) enclosed by the wire

is (Take  $\pi = \frac{22}{7}$ )

- (a) 364.5 (b) 693.5  
(c) 346.5 (d) 639.5

114. A child reshapes a cone made up of clay of height 24 and radius 6cm into a sphere. The radius (in cm) of the sphere is

- (a) 6 (b) 12  
(c) 24 (d) 48

115. Water flows into a tank which is 200m long and 150m wide, through a pipe of cross-section  $0.3\text{m} \times 0.2\text{m}$  at 20 km/hour. [www.examrace.com](http://www.examrace.com)



- the time (in hour) for the water level in the tank to reach 8cm is  
 (a) 50 (b) 120  
 (c) 150 (d) 200
116. The product of two numbers is 2028 and their H.C.F. is 13. The number of such pairs is  
 (a) 1 (b) 2  
 (c) 3 (d) 4
117. Two equal vessels are filled with the mixture of water and milk in the ratio of 3:4 and 5:3 respectively. If the mixtures are poured into a third vessel, the ratio of water and milk in the third vessel will be  
 (a) 15 : 12 (b) 53 : 59  
 (c) 20 : 9 (d) 59 : 53
118. I am three times as old as my son. 15 years hence, I will be twice as old as my son. The sum of our ages is  
 (a) 48 years (b) 60 years  
 (c) 64 years (d) 72 years
119. Three bells ring simultaneously at 11 a.m. They ring at regular intervals of 20 minutes, 30 minutes, 40 minutes respectively. The time when all the three ring together next is  
 (a) 2 p.m. (b) 1 p.m.  
 (c) 1.15 p.m. (d) 1.30 p.m.
120. A and B together can do a work in 12 days. B and C together do it in 15 days. If A's efficiency is twice that of C, then the days required for B alone to finish the work is  
 (a) 60 (b) 30  
 (c) 15 (d) 15
121. A and B can do a work in 12 days, B and C can do the same work in 15 days, C and A can do the same time work in 20 days. The time taken by A, B and C to do the same work is  
 (a) 5 days (b) 10 days  
 (c) 15 days (d) 20 days
122. A is 50% as efficient as B. C does half of the work done by A and B together. If C alone does the work in 20 days, then A, B and C together can do the work in  
 (a)  $5\frac{2}{3}$  days (b)  $6\frac{2}{3}$  days  
 (c) 6 days (d) 7 days
123. The ratio of the volumes of water and glycerine in 240cc of a mixture is 1 : 3. The quantity of water (in cc) that should be added to the mixture so that the new ratio of the volume of water and glycerine becomes 2:3 is  
 (a) 55 (b) 60  
 (c) 62.5 (d) 64
124. At present, the ratio of the ages of Maya and Chhaya is 6:5 and fifteen years from now, the ratio will get changed to 9:8. Maya's present age is  
 (a) 21 years (b) 24 years  
 (c) 30 years (d) 40 years
125. The ratio of the income to the expenditure of a family is 10:7. If the family's expenses are Rs. 10,500, then savings of the family is  
 (a) Rs. 4,500 (b) Rs. 10,000  
 (c) Rs. 4,000 (d) Rs. 5,000
126. The average mathematics marks of two Sections A and B of Class IX in the annual examination is 74. The average marks of Section A is 77.5 and that of Section B is 70. The ratio of the number of students of Section A and B  
 (a) 7 : 8 (b) 7 : 5  
 (c) 8 : 7 (d) 8 : 5
127. The average weight of a group of 20 boys was calculated to be 89.4 kg and it was later discovered that one weight was misread as 78kg instead of 87 kg. The correct average weight is  
 (a) 88.95 kg (b) 89.25 kg  
 (c) 89.55 kg (d) 86.85 Kg
128. The diameter of a wheel is 98 cm. The number of revolutions in which it will have to cover a distance of 1540 m is  
 (a) 500 (b) 600  
 (c) 700 (d) 800
129. In an equilateral triangle ABC of side 10cm,

- the side BC is trisected at D. Then the length (in cm) of AD is
- (a)  $3\sqrt{7}$  (b)  $7\sqrt{3}$
- (c)  $\frac{10\sqrt{7}}{3}$  (d)  $\frac{7\sqrt{10}}{3}$
130. The cost price of an article is Rs. 800. After allowing a discount of 10%, a gain of 12.5% was made. Then the marked price of the article is
- (a) Rs. 1,000  
(b) Rs. 1,100  
(c) Rs. 1,200  
(d) Rs. 1,300
131. A man bought an article listed at Rs. 500 with a discount of 20% offered on the list price. What additional discount must be offered to man to bring the net price to Rs. 1,104?
- (a) 8% (b) 10%  
(c) 12% (d) 15%
132. If  $\frac{a}{b} = \frac{c}{d} = \frac{e}{f} = 3$ ,  
then  $\frac{2a^2 + 3c^2 + 4e^2}{2b^2 + 3d^2 + 4f^2} = ?$
- (a) 2 (b) 3  
(c) 4 (d) 9
133. The floor of a room is of size 4m × 3m and its height is 3m. The walls and ceiling of the room require painting. The area to be painted is
- (a) 66 m<sup>2</sup> (b) 54 m<sup>2</sup>  
(c) 43 m<sup>2</sup> (d) 33 m<sup>2</sup>
134. When the price of an article was reduced by 20% its sale increased by 80%. What was the net effect on the sale?
- (a) 44% increase  
(b) 44% decrease  
(c) 66% increase  
(d) 66% decrease
135. The price of sugar goes up by 20%. If a housewife wants the expenses on sugar to remain the same, she should reduce the consumption by
- (a)  $15\frac{1}{5}\%$  (b)  $13\frac{2}{3}\%$   
(c) 20% (d) 25%
136. In a factory 60% of the workers are above 30 years and of these 75% are males and the rest are females. If there are 1350 male workers above 30 years, the total number of workers in the factory
- (a) 3000 (b) 2000  
(c) 1800 (d) 1500
137. Walking at  $\frac{3}{4}$  of his usual speed, a man is  $1\frac{1}{2}$  hours late. His usual time to cover the same distance, in hours, is
- (a)  $4\frac{1}{2}$  (b) 4  
(c)  $5\frac{1}{2}$  (d) 5
138. The selling price of 10 oranges is the cost price of 13 oranges. Then the profit percentage is
- (a) 30% (b) 10%  
(c) 13% (d) 3%
139. The marked price of a radio is Rs. 480. The shopkeeper allows a discount of 10% and gains 8%. If no discount is allowed, his gain percent would be
- (a) 18% (b) 18.5%  
(c) 20.5% (d) 20%
140. A man sold 20 apples for Rs. 1000 and gained 20%. How many apples did he buy for Rs. 100?
- (a) 20 (b) 22  
(c) 24 (d) 25

141. A rectangular sheet of metal is 40 cm by 15 cm. Equal squares of side 4 cm are cut off at the corners and the remainder is folded up to form an open rectangular box. The volume of the box is

- (a) 896 cm<sup>3</sup>                      (b) 986 cm<sup>3</sup>  
 (c) 600 cm<sup>3</sup>                      (d) 916 cm<sup>3</sup>

142. If 78 is divided into three parts which are in the ratio 1:  $\frac{1}{3}$ :  $\frac{1}{6}$ , the middle part is

- (a)  $9\frac{1}{3}$                               (b) 13  
 (c)  $17\frac{1}{3}$                               (d)  $18\frac{1}{3}$

143. The simple interest on a sum of money is  $\frac{1}{9}$  of the principle and the number of years is equal to rate per cent annum. The rate per annum is

- (a) 3%                              (b)  $\frac{1}{3}$  %  
 (c)  $3\frac{1}{3}$  %                              (d)  $\frac{3}{10}$  %

144. The difference between simple interest and compound interest of a certain sum of money at 20% per annum for 2 years is Rs. 48. Then the sum is

- (a) Rs. 1,000                      (b) Rs. 1,200  
 (c) Rs. 1,500                      (d) Rs. 2,000

145. Shri X goes to his office by scooter at a speed of 30 km/h and reaches 6 minutes earlier. If he goes at a speed of 24 km/h, he reaches 5 minutes late. The distance of his office is

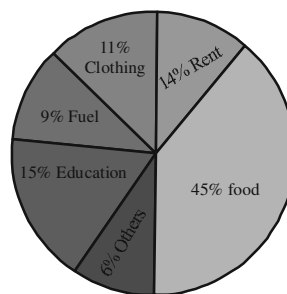
- (a) 20 km                              (b) 21 km  
 (c) 22 km                              (d) 24 km

146. A sum of money becomes eight times in 3 years, if the rate is compounded annually. In how much time will the same amount at the

same compound rate become sixteen times?

- (a) 6 years                              (b) 4 years  
 (c) 8 years                              (d) 5 years

**Directions (147-150):** The pie chart given below show the spending of a family on various heads during a month. Study the graph and answer the questions 147 to 150.



147. If the total income of the family is Rs. 25,000, then the amount spent on Rent and Food together is

- (a) Rs. 17,250                      (b) Rs. 14,750  
 (c) Rs. 11,250                      (d) Rs. 8,500

148. What is the ratio of the expenses of Education to the expenses on Food?

- (a) 1 : 3  
 (b) 3 : 1  
 (c) 3 : 5  
 (d) 5 : 3

149. Expenditure on Rent is what percent of expenditure of Fuel?

- (a) 135%  
 (b) 156%  
 (c) 167%  
 (d) 172%

150. Which three expenditures together have a central angle of 108°?

- (a) Fuel, Clothing and Others  
 (b) Fuel, Education and Others  
 (c) Clothing, Rent and Others  
 (d) Education, Rent and Others

**PART – D**  
**ENGLISH COMPREHENSION**

**Directions (151-155):** In the following question, some of the sentences have errors and some are correct. Find out which part of a sentence has an error. The number of the part is your answer. If a sentence is free from errors, then your answer is (d) i.e., No error.

151. A senior doctor (1) / expressed concern (2) / about physicians recommended the vaccine. (3) / No error. (4)
152. We have discussing (1) / all the known mechanisms (2) / of physical growth, (3) / No error. (4)
153. Children enjoy listening to (1) / ghosts stories (2) / especially on Halloween night. (3) / No error. (4)
154. I (1) / have (2) / many works to do. (3) / No error. (4)
155. There are so many filths (1) / all around (2) / the place. (3) / No error. (4)

**Directions (156–160):** In the following questions, sentences are given with blanks to be filled in with an appropriate word. Four alternatives are suggested for each question. Choose the correct alternative out of the four.

156. The building is not safe and must be \_\_\_\_\_ down.  
(a) pull (b) pulling  
(c) pulled (d) pulls
157. There is something wonderful \_\_\_\_ him.  
(a) of (b) about  
(c) for (d) inside
158. The song in the play cannot be deleted it is \_\_\_\_\_ to the story.  
(a) intervened (b) innate  
(c) exacting (d) integral
159. She remained a \_\_\_\_\_ all her life.

- (a) spinster (b) bachelor  
(c) unmarried (d) single
160. Do not stay in the grasslands after dark, as some animals become \_\_\_\_\_ when they see humans.  
(a) provoked (b) alerted  
(c) aggressive (d) threatened

**Directions (161-165):** In the following, questions out of the four alternatives, choose one which best expresses the meaning of the given word.

161. LUCIDITY  
(a) Fluidity (b) Politeness  
(c) Clarity (d) Fluency
162. INDICT  
(a) Implicate (b) Elude  
(c) Appreciate (d) Judge
163. DELUGE  
(a) Confusion (b) Deception  
(c) Flood (d) Weapon
164. PREPONDERANCE  
(A) Pre-eminence  
(B) Dominance  
(C) Domineering  
(D) Preoccupation

**Directions (166-170):** In the following question no. 166 to 170, out of the four alternatives, choose the word opposite in meaning to the given word.

166. INVINCIBLE  
(a) Small  
(b) Invisible  
(c) Vulnerable (d) Reachable
167. INOFFENSIVE  
(a) Sensitive (b) Organic  
(c) Sensible (d) Rude
168. DIVULGE  
(a) Conceal (b) Disguise  
(c) Oppress (d) Reveal
169. DISCORD  
(a) Harmony (b) Serenity  
(c) Acceptance (d) Placidity

170. MAMMOTH  
 (a) Quiet (b) Significant  
 (c) Huge (d) Small

**Directions (171-175):** In the following four alternatives are given for the meaning of the given Idiom/Phrase. Choose the alternative which best expresses the meaning of the Idiom/Phrase.

171. To take to heart  
 (a) to be encouraged  
 (b) to grieve over  
 (c) to like  
 (d) to hate
172. Yeoman's service  
 (a) medical help  
 (b) excellent work  
 (c) social work  
 (d) hard work
173. To face the music  
 (a) to enjoy a musical recital  
 (b) to bear the consequences  
 (c) to live in a pleasant atmosphere  
 (d) to have a difficult time
174. To put up with  
 (a) to accommodate  
 (b) to adjust  
 (c) to understand  
 (d) to tolerate
175. To call it a day  
 (a) to conclude proceedings  
 (b) to initiate proceedings  
 (c) to work through the day  
 (d) None of the above

**Directions (176-180):** In the following questions, a sentence or bold part thereof is given which may need improvement. Alternative are given at (A), (B) and (C) below, which may be a better option. In case, no improvement is needed, your answer is (D).

176. The man whom I thought was thoroughly honest proved to be a swindler.

- (a) The man whom I thought was thoroughly honest proved as swindler.  
 (b) The man who I thought was thoroughly honest proved to be a swindler.  
 (c) The man to whom I thought was thoroughly honest proved to be a swindler,  
 (d) No improvement
177. No sooner had the dividend been declared, the notices were sent out.  
 (a) The company had hardly declared the dividend till the notices were sent for mailing.  
 (b) They had no sooner declared to dividend then the notices were sent out.  
 (c) Hardly had the dividend been declared than the notices were sent out.  
 (d) No improvement.
178. Riding upon his horse, the tiger jumped at him.  
 (a) Riding upon the tiger, the horse jumped at him.  
 (b) The tiger jumped at him while he was riding upon his horse.  
 (c) The tiger rode at him while he was jumping upon his horse.  
 (d) No improvement
179. I in black and white must have your terms down.  
 (a) I must have in black in white your terms down.  
 (b) I must have your terms in black and white down.  
 (c) I must have your terms down in black and white.  
 (d) No improvement.
180. When we are came out of the restaurant it was half past eleven.  
 (a) When we had come out of the restaurant  
 (b) After we came out of the restaurant  
 (c) When we have come out of the restaurant  
 (d) N i nt

**Directions (181-185):** In the following questions, out of the four alternatives, choose the one which can be substituted for the given words/sentence.

181. Code of diplomatic etiquette and precedence  
(a) Statesmanship  
(b) Diplomacy  
(c) Hierarchy (d) Protocol
182. To renounce a high position of authority or control  
(a) Abduct (b) Abandon  
(c) Abort (d) Abdicate
183. Not to be moved by entreaty  
(a) Rigorous (b) Negligent  
(c) Inexorable (d) Despotic
184. An object or portion serving as a sample  
(a) Specification (b) Spectre  
(c) Spectacle (d) Specimen
185. The practice of submitting a proposal to popular vote  
(a) Election (b) Reference  
(c) Popularity (d) Referendum

**Directions (186-190):** In the following questions, groups of four words are given. In each group, one word is correctly spelt. Find the correctly spelt word.

186. (a) mandatory  
(b) circulatory  
(c) temporary  
(d) regulatory
187. (a) convinience  
(b) initative  
(c) concessional  
(d) exaggerate
188. (a) diologue (b) giraffe  
(c) scissors (d) humourous
189. (a) assiduous (b) nefarious  
(c) macabre (d) loquacious
190. (a) cortege (b) damage  
(c) milege (d) plumege

**Directions (191-200):** In the following passage some of the words have been left out. First read the passage over and try to understand what it is about. Then fill the blanks with the help of the alternative given.

**PASSAGE**

Science means knowledge, but not all knowledge is science. I know from my own eyesight that our dog Chippy lies papaya; I know from a book that Akbar was the (191) of Babar, and (192) in 1605; and I know (193) the ratio that India did not do well in the (194) Test matches. We can call these (195) of knowledge (196) but they are not science.

Science (197) with facts, but not with facts which have (198) to do with each other, like the facts about our dog, cricket and the Mughal ruler; those facts are not related (199), and so have nothing (200) with science. Science starts with observation.

191. (a) grandson  
(b) grandfather  
(c) grand nephew  
(d) son
192. (a) gone (b) died  
(c) disappeared (d) absented
193. (a) on (b) in  
(c) since (d) from
194. (a) old (b) ordinary  
(c) latest (d) outdated
195. (a) pieces (b) peace  
(c) whole (d) block
196. (a) lies (b) charges  
(c) facts (d) blame
197. (a) starts (b) stops  
(c) passes (d) drives
198. (a) no (b) neither  
(c) nor (d) nothing
199. (a) by that way (b) in any way  
(c) from the side (d) in addition to
200. (a) to lie (b) to speak  
(c) to sleep (d) to do

## ANSWERS

1. (c)	2. (c)	3. (c)	4. (c)	5. (d)	6. (b)	7. (d)	8. (d)	9. (a)	10. (b)
11. (d)	12. (b)	13. (d)	14. (d)	15. (d)	16. (c)	17. (c)	18. (b)	19. (a)	20. (b)
21. (d)	22. (d)	23. (d)	24. (c)	25. (a)	26. (b)	27. (a)	28. (d)	29. (a)	30. (b)
31. (d)	32. (d)	33. (c)	34. (a)	35. (a)	36. (a)	37. (a)	38. (c)	39. (d)	40. (c)
41. (c)	42. (a)	43. (b)	44. (b)	45. (d)	46. (b)	47. (c)	48. (d)	49. (b)	50. (c)
51. (c)	52. (c)	53. (c)	54. (a)	55. (a)	56. (d)	57. (c)	58. (d)	59. (c)	60. (b)
61. (b)	62. (c)	62. (a)	64. (b)	65. (c)	66. (d)	67. (c)	68. (c)	69. (c)	70. (a)
71. (d)	72. (d)	73. (c)	74. (c)	75. (d)	76. (c)	77. (b)	78. (d)	79. (d)	80. (a)
81. (c)	82. (a)	83. (c)	84. (a)	85. (d)	86. (b)	87. (d)	88. (c)	89. (b)	90. (d)
91. (a)	92. (c)	93. (a)	94. (a)	95. (c)	96. (b)	97. (d)	98. (b)	99. (d)	100. (b)
101. (d)	102. (b)	103. (a)	104. (d)	105. (a)	106. (b)	107. (b)	108. (c)	109. (b)	110. (a)
111. (a)	112. (d)	113. (c)	114. (a)	115. (d)	116. (b)	117. (d)	118. (b)	119. (b)	120. (c)
121. (b)	122. (b)	123. (b)	124. (c)	125. (a)	126. (c)	127. (d)	128. (a)	129. (c)	130. (a)
131. (a)	132. (d)	133. (b)	134. (a)	135. (b)	136. (a)	137. (a)	138. (a)	139. (d)	140. (c)
141. (a)	142. (c)	143. (c)	144. (b)	145. (c)	146. (b)	147. (b)	148. (a)	149. (b)	150. (b)
151. (c)	152. (a)	153. (c)	154. (c)	155. (a)	156. (c)	157. (b)	158. (d)	159. (a)	160. (c)
161. (c)	162. (c)	163. (d)	164. (c)	165. (b)	166. (c)	167. (d)	168. (a)	169. (a)	170. (d)
171. (b)	172. (a)	173. (b)	174. (d)	175. (d)	176. (d)	177. (a)	178. (b)	179. (c)	180. (d)
181. (d)	182. (d)	183. (d)	184. (d)	185. (d)	186. (c)	187. (d)	188. (c)	189. (b)	190. (a)
191. (a)	192. (b)	193. (a)	194. (c)	195. (a)	196. (c)	197. (a)	198. (d)	199. (b)	200. (d)