

FIRST SEMESTER

Life Skills Course

ANALYTICAL SKILLS

(w.e.f. 2023-24)

Time : Two hours

Maximum : 50 marks

(No additional sheet will be supplied)

Answer any FIFTY questions. Each question carries 1 mark.

(50 × 1 = 50 marks)

1. Simplify $0.32 \times 0.32 + 0.64 \times 0.68 + 0.68 \times 0.68$
(a) 1 (b) 0
(c) 2 (d) 0.5
2. $\left(1 - \frac{1}{3}\right)\left(1 - \frac{1}{4}\right)\left(1 - \frac{1}{5}\right) \dots \left(1 - \frac{1}{n}\right)$ is equal to
(a) $\frac{1}{2}$ (b) $\frac{2}{n}$
(c) $\frac{2}{n(n+1)}$ (d) $\frac{2(n-1)}{n}$
3. Which is greater $\frac{6}{13}$ or $\frac{5}{7}$?
(a) $\frac{6}{13}$ (b) $\frac{5}{7}$
(c) $\frac{42}{65}$ (d) None of these
4. What decimal of an hour is a second?
(a) 0.0025 (b) 0.0256
(c) 0.00027 (d) 0.000126
5. Which of the following numbers divisible by 8?
(a) 106598304 (b) 9801642
(c) 5967013 (d) 36870521

6. What is the total of all the odd numbers from 1 to 180?
(a) 8400 (b) 8300
(c) 8200 (d) 8100
7. Find the HCF of 70 and 90
(a) 20 (b) 10
(c) 30 (d) 40
8. Find the LCM of $\frac{2}{5}$, $\frac{3}{10}$ and $\frac{6}{25}$
(a) $\frac{5}{6}$ (b) $\frac{6}{5}$
(c) $\frac{2}{5}$ (d) $\frac{5}{2}$
9. The HCF of two numbers is 12 and their difference is 12. The numbers are
(a) 66, 78 (b) 70, 82
(c) 94, 106 (d) 84, 96
10. LCM of two numbers is 120 and their HCF is 10. If one of the numbers is 75, then the other number is
(a) 15 (b) 16
(c) 17 (d) 18
11. A number is as much greater than 36 as is less than 86. Find the number?
(a) 51 (b) 41
(c) 61 (d) 71
12. 11, 13, 17, 19, 23, 29, _____
(a) 31 (b) 33
(c) 51 (d) None of these
13. If EODGH is the code for BLADE, what is the code for CRICKET?
(a) WHNFLUF (b) FULFNHW
(c) DSJDLFU (d) ETKEMGV
14. If EARTH is coded as 41590 and PALE as 2134, what is the code for PEARL?
(a) 12345 (b) 54123
(c) 21534 (d) 24153
15. A is brother of B. C is mother of B. M is sister of C. How is M related to B?
(a) Nephew (b) Niece
(c) Aunt (d) None of these

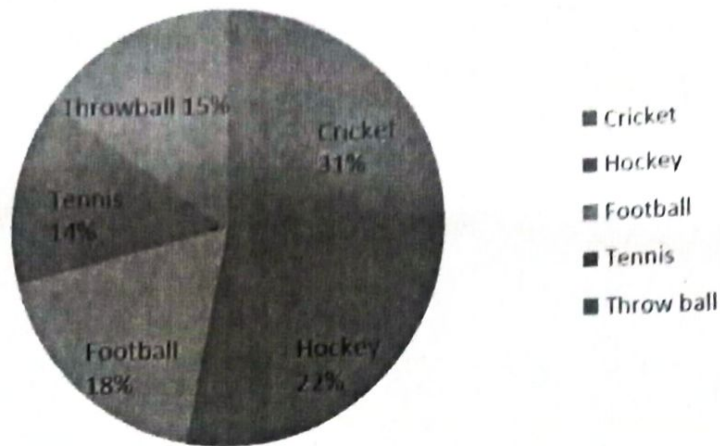
16. Pointing towards a person, a man said to a woman, "His mother is the only daughter of your father". How is the woman related to that person?
- (a) Daughter (b) Sister
(c) Mother (d) Wife
17. How many times in a day, are the hands of a clock in straight line but opposite in direction?
- (a) 20 (b) 22
(c) 24 (d) 44
18. At what time between 9 and 10 o'clock will the hands of a watch be together?
- (a) 45 min past 9 (b) 50 min past 9
(c) $49\frac{1}{11}$ min past 9 (d) $45\frac{2}{11}$ min past 9
19. The calendar for the year 2021 will be the same as the year?
- (a) 2027 (b) 2026
(c) 2025 (d) 2024
20. Today is Friday, after 152 days what will be the day?
- (a) Monday (b) Tuesday
(c) Wednesday (d) Thursday
21. The average marks obtained by 20 students in a certain examination is 45. Find the total marks?
- (a) 650 (b) 720
(c) 840 (d) 900
22. Find the average of all the prime numbers from 17 to 31.
- (a) 20.8 (b) 23.8
(c) 20.5 (d) 20.4
23. Find the mean proportional between 48 and 12
- (a) 27 (b) 26
(c) 24 (d) 25
24. Two numbers are in the ratio of 4:5 and the sum of these numbers is 27. Find the two numbers
- (a) 12, 17 (b) 12, 16
(c) 12, 15 (d) 12, 14
25. The present age of Anitha is 6 times of Vani's age. Vani's present age is 10 years less than Anitha's age. Find the present age of Anitha?
- (a) 12 (b) 13
(c) 14 (d) 15

26. Present age of Rohith is 28 years. What was his age before 9 years?
 (a) 20 years (b) 18 years
 (c) 17 years (d) 19 years
27. A cyclist covers a distance of 750 m in 2 min 30 sec. What is the speed in km/hr of the cyclist?
 (a) 18 km/hr (b) 15 km/hr
 (c) 14 km/hr (d) 16 km/hr
28. A car is running at a speed of 108 kmph what distance will it cover in 15 seconds?
 (a) 45 meters (b) 55 meters
 (c) 450 meters (d) cannot be determined
29. A boy goes to his school from his house at a speed of 3 km/hr. and returns at a speed of 2 km/hr. If he takes 5 hours in going and coming the distance between his house and school is
 (a) 5 km (b) 5.5 km
 (c) 6 km (d) 6.5 km
30. 60% of 240 = ?
 (a) 144 (b) 384
 (c) 180 (d) 300
31. 5% of (25% of Rs. 1600) is
 (a) Rs. 5 (b) Rs. 17.50
 (c) Rs. 20 (d) Rs. 27
32. A man buys a toy for Rs. 25 and sells it for Rs. 30. Find his gain percent.
 (a) 10% (b) 40%
 (c) 30% (d) 20%
33. Anjan sold an article for Rs. 6,000 at a loss of 25%. Find the cost price?
 (a) Rs. 7,500 (b) Rs. 7,200
 (c) Rs. 8,500 (d) Rs. 8,000
34. Ravi and Kavi start a business by investing Rs. 80,000 and Rs. 72,000 respectively. Find the ratio of their profits at the end of year
 (a) 2 : 9 (b) 5 : 9
 (c) 7 : 9 (d) 10 : 9
35. Rakesh, Dinesh and Mahesh start a business by investing Rs. 5,000, Rs. 8,000 and Rs. 12,000 respectively. At the end of year, they got the profit of Rs. 12,500, what is the share if Dinesh in profit?
 (a) Rs. 4,000 (b) Rs. 4,500
 (c) Rs. 6,000 (d) Rs. 7,500

36. Find the simple interest on Rs. 5200 for 2 years at 6% per annum.
- (a) Rs. 622 (b) Rs. 623
(c) Rs. 624 (d) Rs. 625
37. In what time will Rs. 1,200 earn an interest of Rs. 240 at 5% per annum?
- (a) 5 years (b) 4 years
(c) 3 years (d) 2 years
38. Find compound interest on Rs. 5,000 for 2 years at 4% per annum.
- (a) Rs. 405 (b) Rs. 406
(c) Rs. 407 (d) Rs. 408
39. What will be the difference between simple and compound interest on a sum of Rs. 4500 put for 2 years at 5% per annum?
- (a) Rs. 11 (b) Rs. 12
(c) Rs. 11.25 (d) Rs. 12.25
40. Find the amount on Rs. 15,625 for 2 years at 4% p.a.
- (a) Rs. 1275 (b) Rs. 2175
(c) Rs. 16,900 (d) Rs. 19,600
41. If $3x + 4 = 10$ then x is
- (a) 3 (b) 4
(c) 2 (d) 1
42. If $a : b = 2 : 3$ and $b : c = 5 : 7$ find $a : c$
- (a) 21:10 (b) 15:21
(c) 14:21 (d) 10:21
43. $\frac{2}{5}$ of $\frac{1}{3}$ of 360 = ?
- (a) 48 (b) 56
(c) 60 (d) 68
44. Which ratio is least 14 : 17 or 18 : 21?
- (a) 18:21 (b) 14:17
(c) 12:19 (d) None of these
45. Express 25 mps in kmph.
- (a) 80 kmph (b) 85 kmph
(c) 90 kmph (d) 95 kmph

Study the following Pie chart carefully. Pie chart shows the number of players = 3000.

Number of Players



56. How many number of players in Cricket?
(a) 900 (b) 920
(c) 930 (d) 940
57. How many players in Throw ball?
(a) 420 (b) 430
(c) 460 (d) 450
58. What is the difference between the number of players in Football and Tennis?
(a) 120 (b) 220
(c) 330 (d) 440
59. What is the average of players who are playing Tennis, Throw ball and Cricket?
(a) 900 (b) 600
(c) 800 (d) 940
60. How many players are there in Football and Hockey together?
(a) 900 (b) 920
(c) 930 (d) 940