



SRR & CVR GOVT. DEGREE COLLEGE

(Autonomous) NAAC 'B+' Grade

DEPARTMENT OF MATHEMATICS



II year Degree Examinations - III Semester

Life skills

Analytical Skills

MODEL QUESTION PAPER

Time: 2 hours

Max. Marks: 50

Answer any 5 questions. Each question carries 10 marks

5×10 = 50 M

- (1). (i) Simplify $18 - [5 - \{6 + 2(7 - 8 - 5)\}]$.
- (ii) What is the value of $\frac{(P+Q)}{(P-Q)}$ if $\frac{P}{Q} = 7$.
- (iii) The expression $(12.86 \times 12.86 + 12.86 \times p + 0.14 \times 0.14)$ will be a perfect square for p equal to?
- (iv) What is the lowest common multiple of 12, 36 and 20?
- (v) The expression $(12.86 \times 12.86 + 12.86 \times p + 0.14 \times 0.14)$ will be a perfect square for p equal to?
- (2). (i) Explain BODMAS rule.
- (ii) LCM of two numbers is 120 and their HCF is 10. What is the sum of those two numbers?
- (3). (i) A is B's sister. C is B's mother. D is C's father. E is D's mother. Then, how is A related to D?
- (ii). Pointing out to a lady, a girl said, "She is the daughter-in-law of the grandmother of my father's only son." How is the lady related to the girl?
- (iii) At what angle the hands of a clock are inclined at 15 minutes past 5?
- (iv) At what time between 2 and 3 o'clock will the hands of a clock be together?
- (v) What was the day on 15th august 1947?
- (4). (i) 11, 13, 17, 19, 23, 25, ?
- a)26 b)27 c)29 d)37

(ii). 6, 11, 21, 36, 56, ?

a)42 b)51 c)81 d)91

(iii). 10, 18, 28, 40, 54, 70, ?

a)85 b)86 c)87 d)88

(iv). 22, 24, 28, ?, 52, 84

a)36 b)38 c)42 d)46

(v). 28, 33, 31, 36, ?, 39

a)32 b)34 c)38 d)40

(5). (a) Explain Ratio and proportion.

(b) Rohit was 4 times as old his son 8 years ago. After 8 years, Rohit will be twice as old as his son. What are their present ages?

(6). (a) The ratio of the present ages of P and Q is 3 : 4. Five years ago, the ratio of their ages was 5: 7. Find their present ages.

(b) The average age of 15 students of a class is 15 years. Out of these, the average age of 5 student is 14 year and that of the other 9 students is 16 years. The age of the 15th student is ?

(7). (a) Chetan and Suman started a business in partnership by investing Rs.15000 and Rs. 18000 respectively. If at the end of the year, Chetan's share in the profit was Rs.1200, what was the amount of total profit?

(b) A sum of Rs 1600 gives a simple interest of Rs. 252 in 2years and 4months. The rate of interest per annum is?

(8). (a) Explain types of Venn diagrams.

(b) Population in Millions

City	Total Population	Male Population
A	12	6.5
B	15	7.2

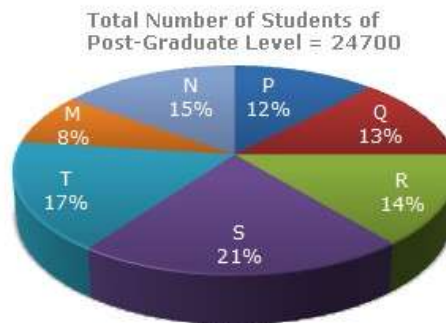
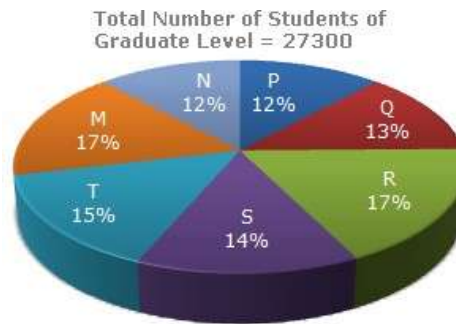
C	17	9.0
D	19	9.8
E	22	10.8

What is the average female population in million?

(9). Study the following table carefully answer the questions percentage of marks obtained by 6 students in 6 different subjects.

Sub/ student	History (out of 50)	Geography (out of 50)	Maths (out of 150)	Science (out of 100)	English (out of 75)	Hindi (out of 75)
Amit	76	85	69	73	64	88
Bharat	84	80	85	78	73	92
Umesh	82	67	92	87	69	76
Nikhil	73	72	78	69	58	83
Pratiksha	68	79	64	91	66	65
Ritesh	79	87	88	93	82	72

- What is the approximately the integral % of marks obtained by Umesh in all the subjects?
- What is the avg % of marks obtained by all the students in Hindi
(approximated to two places of decimal)
- What are the average marks of all the students in Mathematics?
- What are the average marks obtained by all the students in geography?
- What are the total marks obtained by pratiksha in all the subjects taken together?



(10). The following pie-charts show the distribution of students of graduate and post-graduate levels in seven different institutes in a town. Distribution of students at graduate and post-graduate levels in seven institutes:

- (i) What is the total number of graduate and post-graduate level students in institute R?
- (ii) What is the ratio between the number of students studying at post-graduate and graduate levels respectively from institute S?
- (iii) How many students of institutes M and S are studying at graduate level?
- (iv) What is the ratio between the number of students studying at post-graduate level from institutes S and the number of students studying at graduate level from institute Q?
- (v) Total number of students studying at post-graduate level from institutes N and P is?