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**CERTIFICATE IN ELEMENTARY
TEACHER EDUCATION (CETE)**

Term-End Examination

December, 2010

MESE-013 : TEACHING OF MATHEMATICS

Time : 3 hours

Maximum Weightage : 100%

Note : (i) All questions are compulsory.

(ii) All questions carry equal weightage.

1. Answer the following question in about 600 words :

Write different components of a good lesson plan and explain them in detail with suitable examples.

OR

Differentiate between the following :

- (a) Inductive and Deductive methods of teaching Maths.
- (b) Analytic and synthetic methods of teaching Maths.

2. Answer the following question in about 600 words :

Explain in detail the need and importance of Mathematics in School Curriculum at elementary level.

OR

Discuss in brief different steps for planning a unit test.

3. Attempt *any four* of the following :

(a) Solve graphically

$$|x-2| < 5$$

(b) Calculate the single discount equivalent for successive discount of 15%, 10% and 5%.

(c) The cash price of a refrigerator is Rs. 12000. If the trade is valued at Rs. 3000 with a carrying charge of 12% find the monthly instalment for a 20 month contract.

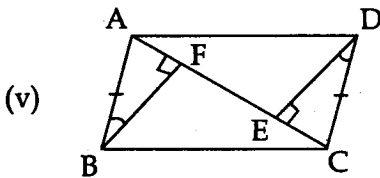
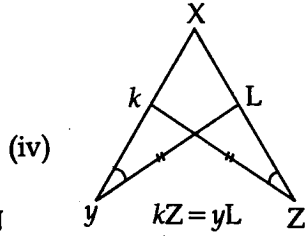
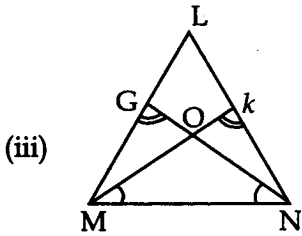
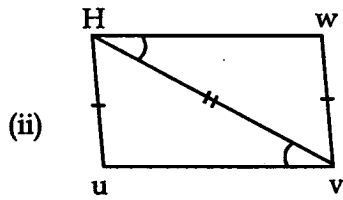
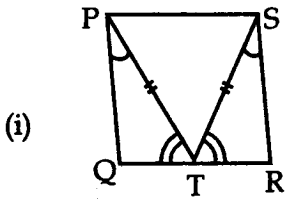
(d) A family spends the following amounts in Rs. monthly on items listed below. Draw a pie chart.

Items	Food	Clothing	Housing	Transport	Education	Miscellaneous expenses	Saving
Expenditure	1600	1000	2400	600	800	200	600

(e) Draw cumulative frequency graph or ogive for the following distribution.

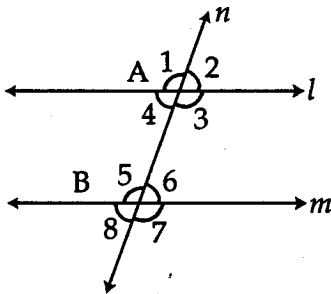
Class Interval	800-1000	1000-1200	1200-1400	1400-1600	1600-1800	1800-2000
Frequency	33	30	32	28	25	27

(f) State which of the following triangles are congruent. If yes, state the condition for congruency (SAS, etc). Equal parts are shown by similar markings.



(g) $l \parallel m$ and transversal n cuts them at points A and B forming

$\angle 1, \angle 2, \angle 3, \angle 4, \angle 5, \angle 6, \angle 7$ and $\angle 8$.



If $\angle 1 = 120^\circ$ find $\angle 7$ and $\angle 8$.

4. Answer the following question by giving all steps :
The radius of the internal and external surfaces of a hollow spherical shell are 3 cm and 5 cm respectively. It is melted and recast into a solid cylinder of height $2\frac{2}{3}$ cm. Find the diameter of the cylinder.
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