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ಕರ್ನಾಟಕ ಪ್ರೌಢ ಶಿಕ್ಷಣ ಪರೀಕ್ಷಾ ಮಂಡಳಿ, ಮಲ್ಲೇಶ್ವರಂ, ಬೆಂಗಳೂರು – 560 003

KARNATAKA SECONDARY EDUCATION EXAMINATION BOARD, MALLESWARAM, BANGALORE – 560 003

ಎಸ್.ಎಸ್.ಎಲ್.ಸಿ. ಪರೀಕ್ಷೆ, ಜೂನ್ — 2018

S. S. L. C. EXAMINATION, JUNE, 2018

ಮಾದರಿ ಉತ್ತರಗಳು

MODEL ANSWERS

ದಿನಾಂಕ : 23. 06. 2018] ಸಂಕೇತ ಸಂಖ್ಯೆ : **72**

Date : 23. 06. 2018] **CODE NO. : 72**

ವಿಷಯ : ಇಂಜಿನಿಯರಿಂಗ್ ಡ್ರಾಯಿಂಗ್

Subject : **ENGINEERING DRAWING**

(ಹಳೆಯ ಪಠ್ಯಕ್ರಮ / **Old Syllabus**)

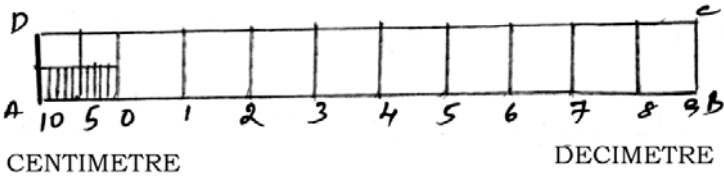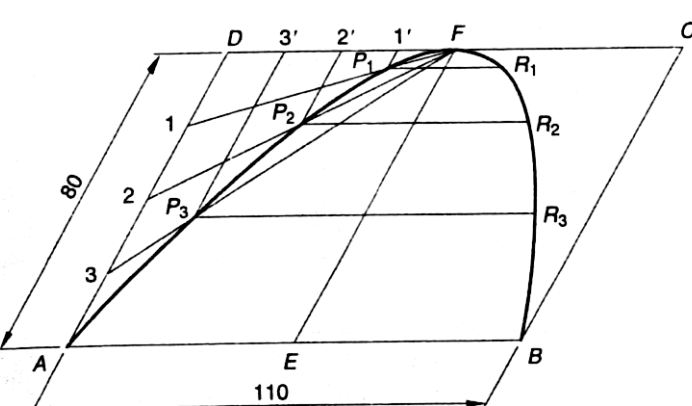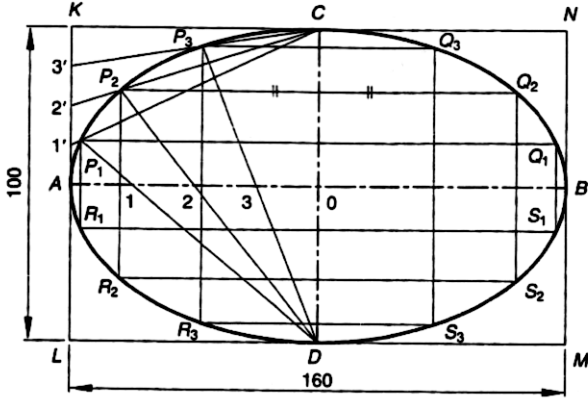(ಪುನರಾವರ್ತಿತ ಶಾಲಾ ಅಭ್ಯರ್ಥಿ/ **Regular Repeater**)

[ಗರಿಷ್ಠ ಅಂಕಗಳು : **50**

[Max. Marks : 50

Qn. Nos.	Sub. Qn.No.	Value Points	Total
1.	a)	Fill in the blanks with the correct figure/word(s) by selecting from the choices given in the brackets : 5 × 1 = 5 i) The inclination of letters as for inclined lettering as recommended by B.I.S. is .... (*75°, 70°, 65°*) *Ans.* 75° ii) The dimension figure for radius of a circle should preceded by .... (*SR, CR, R*) *Ans.* R iii) The full form of R.F. is .... (*reducing factor, representative fraction, rational factor*) *Ans.* representative fraction	
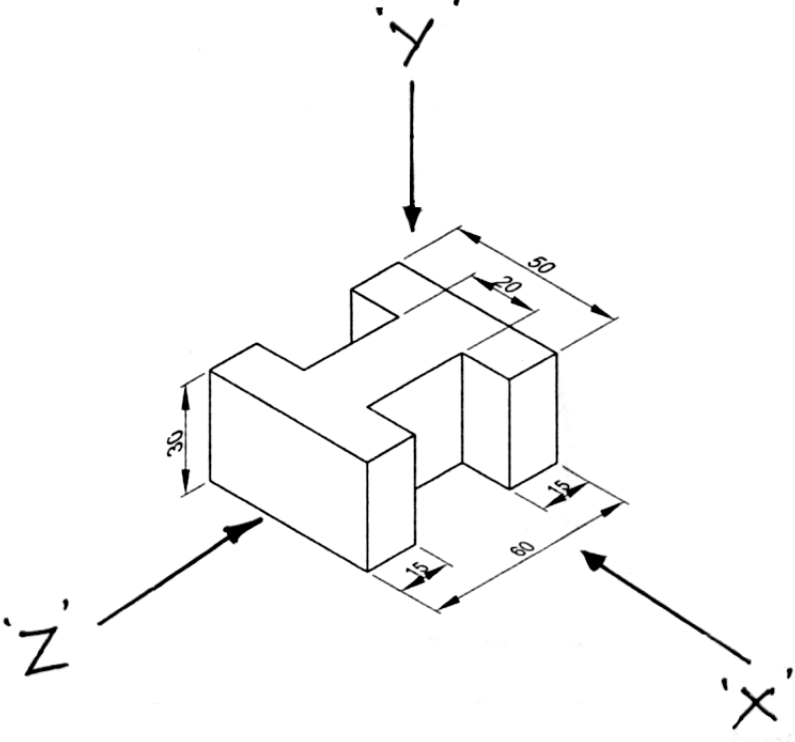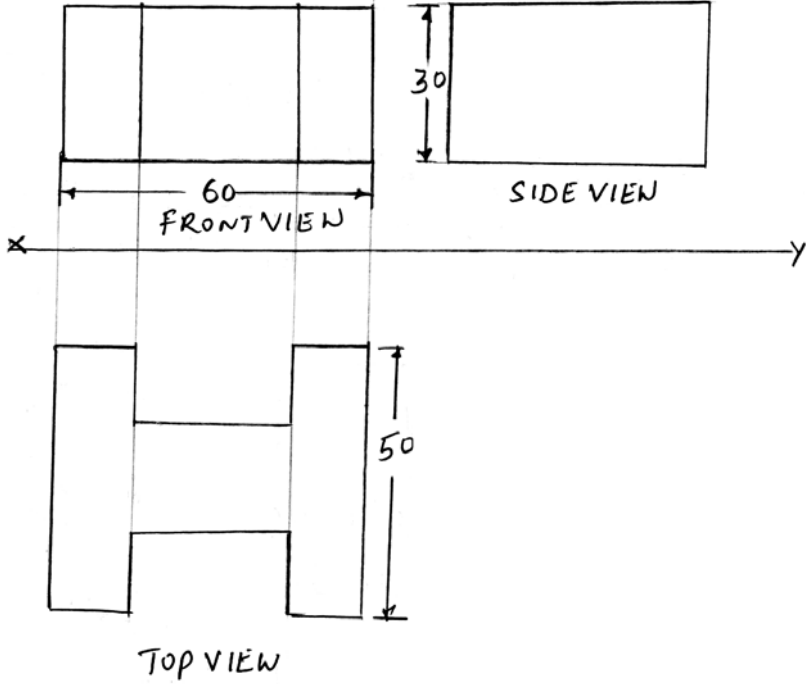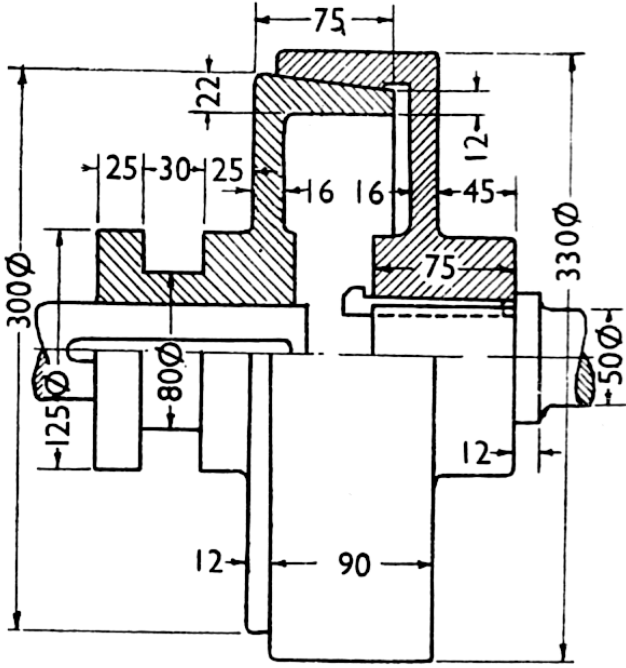
Qn. Nos.	Sub. Qn.No.	Value Points	Total
		iv) Elliptical curves find their use is .... (*design of water channels, reflecting telescopes, concrete arches*) *Ans.* concrete arches v) For orthographic projections B.I.S. recommends the .... (*first angle projection, second angle projection, third angle projection*) *Ans.* first angle projection	$5 \times 1 = 5$

	b)	Match the following : $5 \times 1 = 5$
		      Group A ***Group B***
		 i) Crest a) the surface between creast and root
		 ii) Root b) the distance between creast and root
		 iii) Flank c) the distance measured parallel to the axis
		 iv) Depth d) innermost portion of a thread
		 v) Pitch e) equal to half the lead
		                  f) outermost part of a thread.
		 Ans.
		 i) (f) outermost part of a thread
		 ii) (d) innermost portion of a thread
		 iii) (a) the surface between creast and root
		 iv) (b) the distance between creast and root
		 v) (c) the distance measured parallel to the axis
			$5 \times 1 = 5$

2.	a)	Print the following in single stroke vertical capital letters of height 18 mm with 6 : 5 ratio. 5 'HYPERBOLA' *Ans.* Letter writing H = 6:5 ratio Y = 6:5 ratio P = 6:5 ratio E = 6:5 ratio R = 6:5 ratio B = 6:5 ratio O = 6:6 ratio L = 6:6 ratio A = 6:6 ratio	5

Qn. Nos.	Sub. Qn.No.	Value Points	Total
	b)	Construct a scale of 1 : 5 to show decimetres and centimetres and long enough to measure up to 0·5 metre. 5 *Ans.* 1) R.F. = $\frac{1}{5}$ 2) Length of scale = R.F. × Max. length $\qquad = \frac{1}{5} \times 1 \times 50$ cm $\qquad = 10$ cm 3) Divide the length of scale in 10 equal parts each representing 0·5 dm **PLAIN SCALE** CENTIMETRE DECIMETRE R.F. Construction of scale	1 4 ___ 5
3.	a)	Inscribe a parabola in a parallelogram of 110 mm × 80 mm sides, the included angle being 60°. 5 *Ans.* **PARABOLA** Construction of parabola Dimensioning	4 1 ___ 5

Qn. Nos.	Sub. Qn.No.	Value Points	Total
	b)	Inscribe the largest possible ellipse in a rectangle with 160 mm × 100 mm sides. 5 *Ans.* **ELLIPSE** Construction of ellipse Dimensioning	 4 1 — 5
4.	a)	Differentiate between first angle and third angle projection. *Ans.* First angle projection i) The object lies in the first quadrant ii) The object lies between the observer and the plane of projection iii) Top view is drawn below the front view iv) The left-hand side view is drawn to the right side of the front view v) The right-hand side view is drawn to the left side of front view. Third angle projection i) The object lies in the third quadrant ii) The plane of projection lies between the object and the observer iii) The top view is drawn above the front view	$3 \times \frac{1}{2} = 1\frac{1}{2}$

Qn. Nos.	Sub. Qn.No.	Value Points	Total
		iv) The left side view is drawn to the first left side of the front view v) The right-hand side view is drawn to the right side of the front view.	$3 \times \frac{1}{2} = 1\frac{1}{2}$
	b)	The pictorial view of an object is shown in Figure No. 1. Draw the following orthographic views and mark the dimensions : (i) Front view — Looking in the direction of arrow 'X' (ii) Top view — Looking in the direction of arrow 'Y' (iii) Side view — Looking in the direction of arrow 'Z'. **Figure No. 1**	

Qn. Nos.	Sub. Qn.No.	Value Points	Total
		Ans. Front view Top view Side view Dimensioning	2 2 2 1 —— 7
5.		Figure No. 2 shows the sectional elevation of a cone friction clutch. Draw the sectional elevation of the cone friction clutch to half full size (1 : 2 size) and mark dimensions. 10	

Qn. Nos.	Sub. Qn.No.	Value Points	Total
		CONE FRICTION CLUTCH **Figure No. 2** *Ans.* a) Copy the sketch of cone friction clutch to half size. b) Dimensioning	8 2 10