

Government of Karnataka
Karnataka School Examination and Assessment Board (KSEAB)
Blueprint for Model Question Paper – 3

Subject: **II PUC Electronics (40)**

Academic Year: 2024-25

	Chapters	Hour	Marks	Remember (35%)				Understand (35%)					Apply (20%)				HOTS
				MCQ	SA	LA	LA	MCQ	FIB	SA	LA	LA	MCQ	SA	LA	LA	LA
				1M	2M	3M	5M	1M	1M	2M	3M	5M	1M	2M	3M	5M	5M
1	Field Effect Transistor (FET)	04	04	1							1						
2	Transistor Biasing	03	03		1			1									
3	Transistor Amplifiers	14	12	1					1*			1E				1N	
4	Feedback in Amplifiers	06	06			1		1						1N			
5	Operational Amplifiers	15	13	1			1E	1	1*								1N
6	Oscillators	08	07	1					1*		1			1N			
7	Wireless Communication	04	04					1			1						
8	Modulation and Demodulation	15	12	1		1			1*	1							1N
9	Power Electronics and its applications	08	06	1						1					1N		
10	Digital Electronics	18	18	1			1E		1*	1			1		1N	1N	
11	Microcontroller	10	08		1			1				1E					
12	C Programming	09	06	1			1E										
13	Modern Communication Systems	06	06	1		1				1							
	Total	120	105	9	4	9	15	5	5*	08	09	10	01	04	06	10	10
				37				37					21				10

* – Fill in the blank, HOTS – Higher order thinking, E –Essay type Question, N-Numerical Problem

<p style="text-align: center;">Question Paper Pattern Subject: II PUC Electronics (40)</p>			
Parts	Marks per Question	Total Questions given including choices	Questions to be answered
Part A – I (MCQ)	1	15Q×1M = 15	15Q×1M = 15
Part A – II (Fill in the Blanks)	1	5Q×1M = 05	5Q×1M = 05
Part B - III	2	8Q×2M = 16	5Q×2M = 10
Part C - IV	3	8Q×3M = 24	5Q×3M = 15
Part D - V Section I (Essay Type)	5	5Q×5M = 25	3Q×5M = 15
Part D - VI Section II (Numerical)	5	4Q×5M = 20	2Q×5M = 10
		105	70

Guidelines to question paper setters

Q No. 27 Short answer from microcontroller (meanings of mnemonics to be avoided).

Q No. 34 Numerical on HWR or FWR for the given rms voltage.

Q No. 35 Numerical (excluding POS).

Q No. 37 Working of any one amplifier circuit.

Q No. 38 Derivation on any one op-amp circuit.

Q No. 40 ALP program (from the specified programs in the syllabus).

Q No. 41 C program (from the specified programs in the syllabus).

Q No. 42 Numerical on transistor r_e' model (only silicon transistor).

Mention $V_{BE} = 0.7 \text{ V}$ and $r_e' = 26\text{mV}/I_E$ in the problem.

Q No. 43 Numerical on applications of OP-Amp (excluding differentiator and integrator).

Q No. 44 Numerical on AM.

Q No. 45 Numerical on four variable K-map (two groups).
