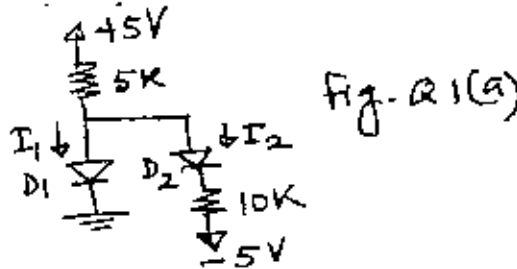


**SECTION - A**

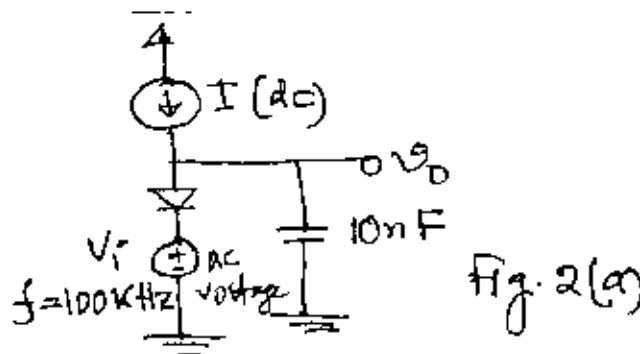
There are **FOUR** questions in this section. Answer any **THREE**.

1. (a) Assuming that the diodes are ideal, find the values of the labeled voltage and currents of the circuit shown in Fig. Q 1(a). (20)



- (b) Draw a half wave rectifier with a filter capacitor. Obtain  $V_r$  and PIV.  $V_r$  is the ripple voltage. (15)

2. (a) Find the value of  $I$  of the circuit shown in Fig. Q 2(a) that will provide a phase shift of  $-45^\circ$ , and the range of phase shift achieved as  $I$  is varied over the range 0.1 to 10 times this value. Assume  $\eta = 1$ . (20)



- (b) Show that for small signal operation of MOSFET in saturation, (15)

$$i_d = g_m v_{gs} \quad \text{where symbols have their usual meanings.}$$

3. (a) Draw a CMOS inverter  $V_{tn} = |V_{tp}| = 2V$ ,  $\left(\frac{W}{L}\right)_n = 20$ ,  $\left(\frac{W}{L}\right)_p = 40$ ,

$\mu_n C_{ox} = 2\mu_p C_{ox} = 20 \mu A/V^2$ , and  $V_{DD} = 10 V$ . For input  $v_i = V_{DD}$ , find the maximum current that the inverter can sink while the output  $v_o$  remains  $\leq 0.5 V$ .

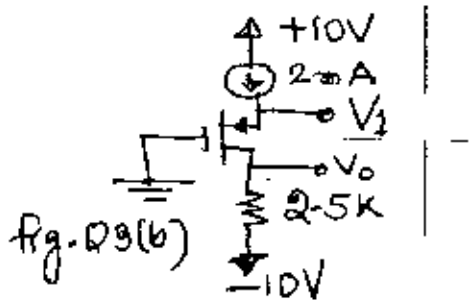
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**EEE 201/EEF**

**Contd... Q. No. 3**

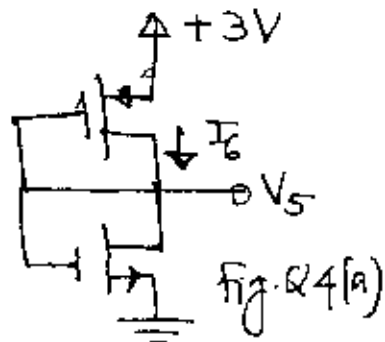
(b) Find the labeled voltages of the circuit shown in Fig. Q 3(b). Given:  $|V_{tp}| = 2V$ ,

$k'_p \frac{W}{L} = 1\text{mA/V}^2$  and  $|\lambda| = 0$ .

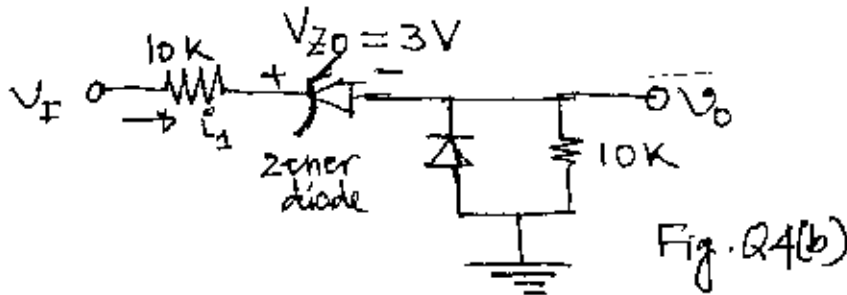


4. (a) Find  $I_6$  and  $V_5$  of the circuit shown in Fig. Q 4(a). Given:  $\mu_n C_{ox} = 2.5\mu_p C_{ox} = 20\mu\text{A/V}^2$

$\left(\frac{W}{L}\right)_n = 3$  and  $\left(\frac{W}{L}\right)_p = 7.5$ .



(b) Consider the circuit in Fig. Q 4(b). (i) Plot  $v_o$  versus  $V_i$  over the range  $-10 \leq V_i \leq +10V$ . (ii) Plot  $i_1$  over the same input voltage range as part of (i).



**EEE 201/EEE**

**SECTION – B**

There are **FOUR** questions in this section. Answer any **THREE**.

Symbols have their usual meaning.

5. (a) Determine the currents and voltages i.e.  $I_{REF}$ ,  $I_Q$ ,  $V_{GS_1}$ ,  $V_{GS_2}$ ,  $V_{GS_3}$ ,  $V_{GS_4}$ ,  $V_{DS_1}$  and  $V_{DS_2}$  in the MOSFET constant current source shown in Fig. 5(a). (16)
- (b) Determine the small-signal voltage gain and output resistance of the circuit shown in Fig. 5(b). What is the name of this amplifier configuration? (17+2)
6. (a) Determine the currents in all the branches of the two-transistor current source circuit shown in Fig. 6(a) for  $R_1 = 10\text{ K}\Omega$ . (12)
- (b) Determine the quiescent values of base, collector and emitter currents in  $Q_1$  and  $Q_2$  for the circuit shown in Fig. 6(b). (12)
- (c) For the circuit shown in Fig. 6(c), find the highest voltage to which the base can be raised while the transistor remain in the active mode. Assume  $\alpha = 1$ . (11)
7. (a) With neat diagram explain the advantages and disadvantages of different biasing arrangements of MOSFET amplifier circuit. (12)
- (b) For the Darlington pair circuit shown in Fig. 7(b) draw the small signal equivalent circuit and determine current gain ( $i_o/i_i$ ) and input resistance  $R_i$ . (18)
- (c) Starting from a  $\pi$  equivalent circuit derive the T equivalent circuit of a MOSFET. (5)
8. (a) For the small signal operation of a BJT derive the expression of voltage gain, input resistance in base ( $r_{\pi}$ ) and emitter ( $r_e$ ). (15)
- (b) For the amplifier circuit shown in Fig. 8(b), determine (18)
- (i) the quiescent parameters
- (ii) small signal voltage gain.
- Also name amplifier configuration of this circuit. (2)
-

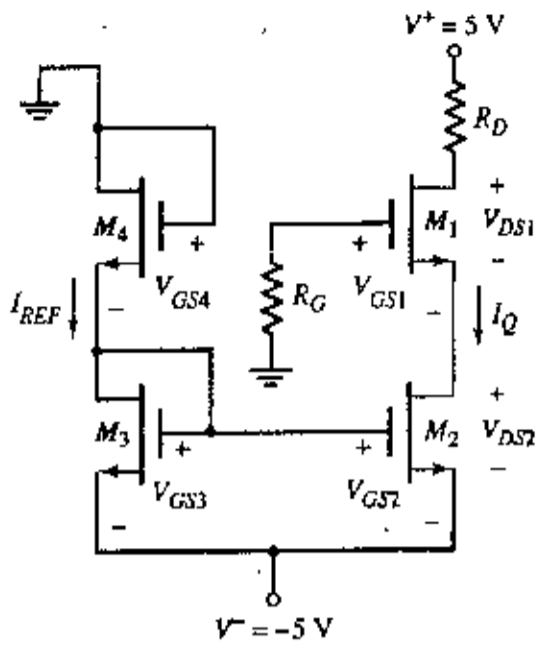


Fig for Q. 5(a)

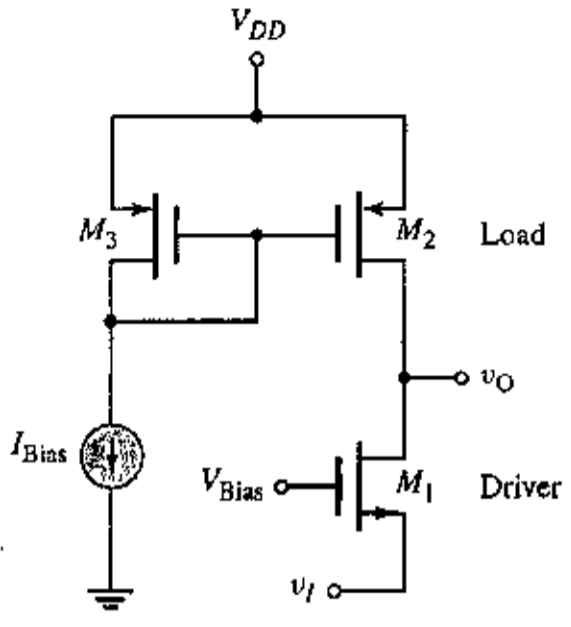


Fig for Q. 5(b)

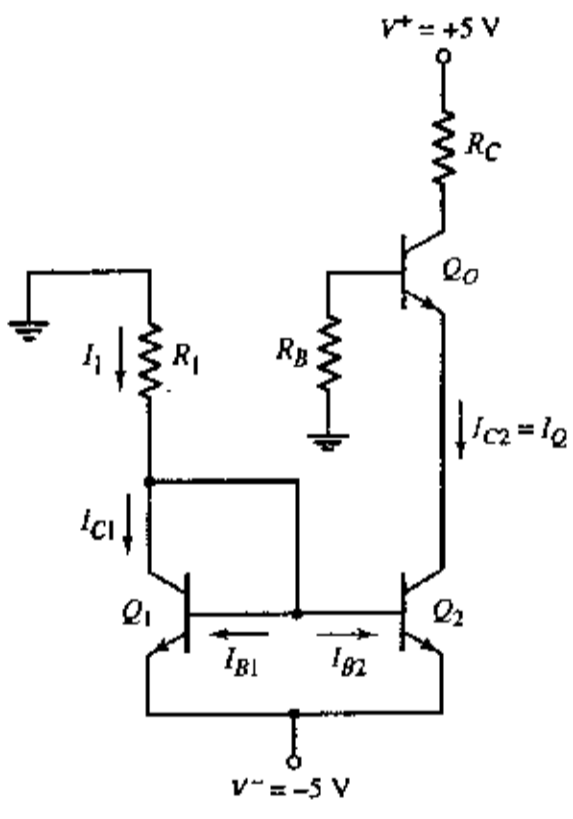


Fig for Q. 6(a)

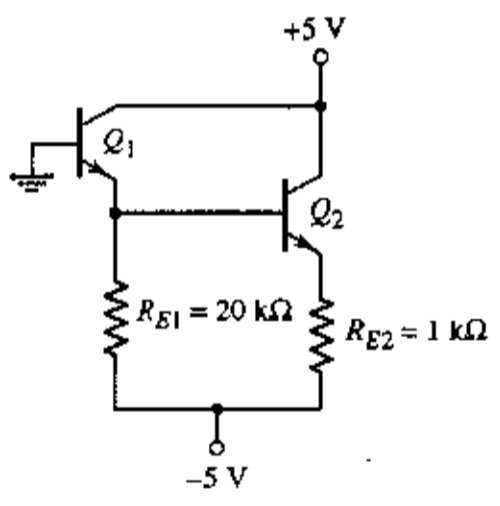


Fig for Q. 6(b)

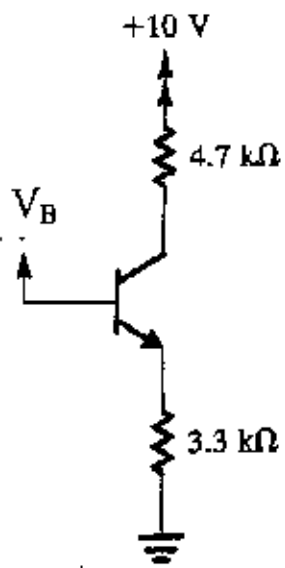


Fig for Q. 6(c)

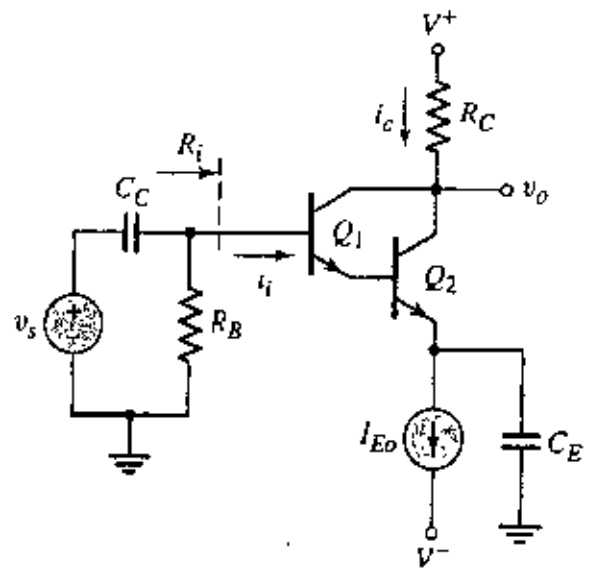


Fig for Q. 7(b)

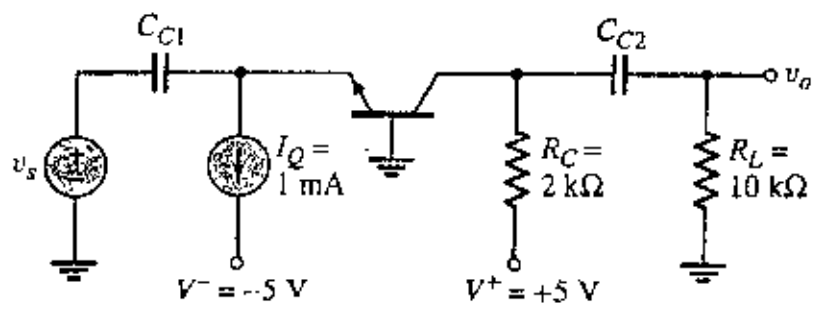


Fig for Q. 8(b)

**SECTION – A**

There are **FOUR** questions in this section. Answer any **THREE**.

The questions are of equal value.

1. (a) What are the main parts of a distribution transformer? With necessary diagrams describe the constructional details of these parts. What are the differences between core and shell type of transformers?

(b) A 13.2 kV single phase generator supplies power to a load through a transmission line. The load's impedance is  $Z_{Load} = 500 \angle 36.87^\circ \Omega$ , and the transmission line's impedance is  $Z_{Line} = 60 \angle 53.1^\circ \Omega$ .

(i) If the generator is directly connected to the load (Fig. for Q. No. 1(b)(i)), what is the ratio of the load voltage to the generated voltage? What are the transmission losses of the system?

(ii) If a 1 : 10 step-up transformer is placed at the output of the generator and a 10 : 1 transformer is placed at the load end of the transmission line, what is the new ratio of the load voltage to the generated voltage? What are the transmission losses of the system now (Fig. for Q. No. 1(b)(ii)). The transformers may be assumed to be ideal.

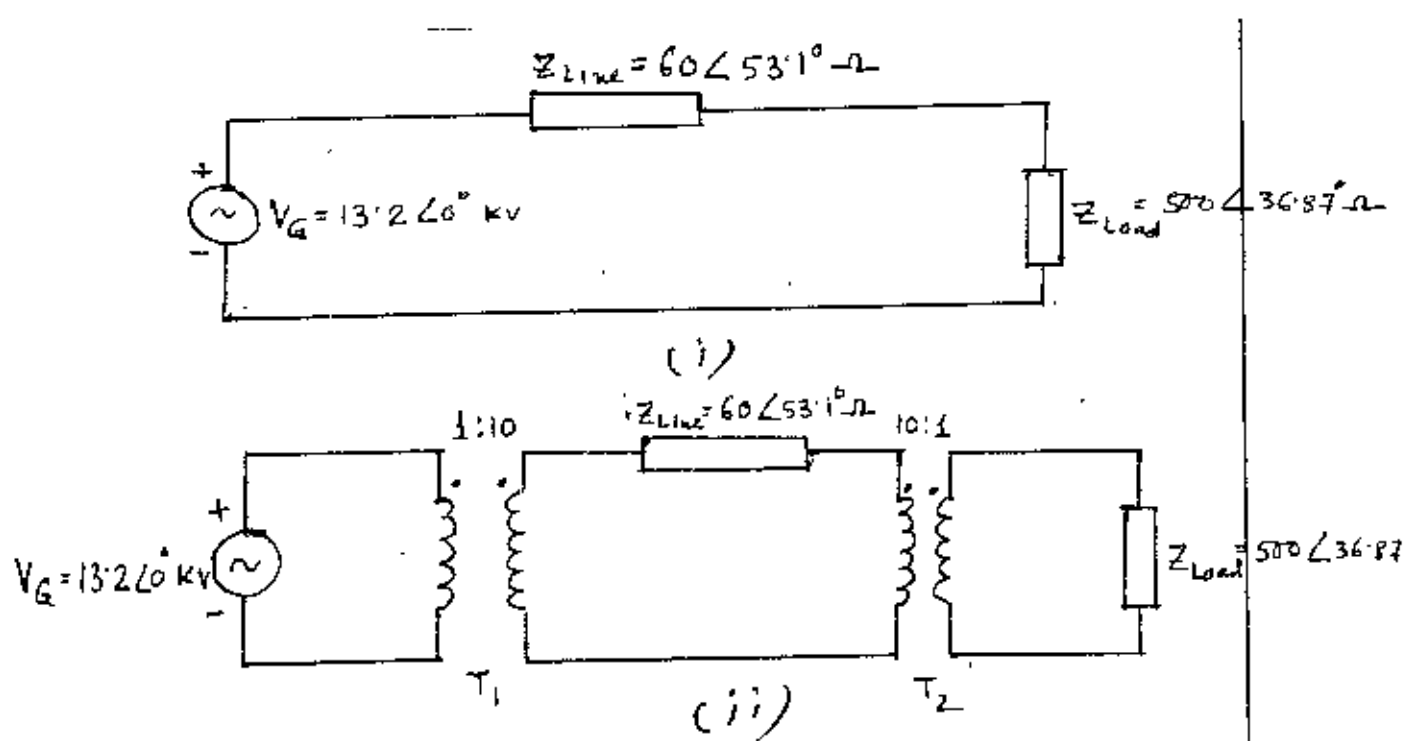


Fig. for Q. no. 1 (b)

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2. (a) Explain the magnetizing and core loss currents of a transformer. Explain with necessary formulae and diagrams why the magnetizing and core loss currents are non-sinusoidal when the input voltage is sinusoidal. What are the power losses of a transformer?

(b) A 20 kVA 8000/480 V single phase transformer has the following resistances and reactances:

$R_p = 32 \Omega$	$R_s = 0.05 \Omega$
$X_p = 45 \Omega$	$X_s = 0.06 \Omega$
$R_c = 250 k\Omega$	$X_m = 30 k\Omega$

The excitation branch impedances are given referred to the high-voltage side of the transformer.

(i) Find the equivalent circuit of this transformer referred to the high and low voltage sides. (ii) Find the per-unit equivalent circuit of this transformer. (iii) If this transformer is supplying rated load at 480 V and 0.8 PF lagging what is the transformer's input voltage and what is its voltage regulation?

3. (a) Explain the working principle of an auto-transformer. What are the advantages and disadvantages of an auto-transformer if compared with a conventional transformer? Explain the term apparent power advantage of the auto-transformer. Mention the areas of application of auto-transformer.

(b) Draw and explain the phasor diagrams of a transformer at lagging, leading and unit power factor loads by neglecting the effect of exciting current. From the phasor diagram of the transformer derive the formula for voltage regulation of transformer. What are the instrument transformers? Explain how they operate. Where are they used?

4. (a) Explain why  $\Delta$ - $\Delta$  connected three-phase transformer is derated to 57.7% of its power rating when one of the phases is damaged and removed. What is the inrush of magnetizing current of a transformer?

(b) A 5000 kVA, 230/13.8 kV single phase transformer has per-unit resistance of 1 percent and a per-unit reactance of 5 per cent. The open circuit test performed on the low-voltage side of the transformer yielded the following data:

$$V_{OC} = 13.8 \text{ kV}, I_{OC} = 15.1 \text{ A}, P_{OC} = 44.9 \text{ kW}$$

- (i) Find the equivalent circuit referred to the low-voltage side of this transformer.  
(ii) If the voltage on the secondary side is 13.8 kV and the power supplied is 4000 kW at 0.8 PF lagging, find the voltage regulation of the transformer. Find also the efficiency of the transformer at this condition.

**EEE 203/EEE****SECTION - B**

There are **FOUR** questions in this section. Answer any **THREE**.

The figures in the margin indicate full marks.

5. (a) Show with necessary figures that if a three phase set of currents, each of equal magnitude and differing in phase by  $120^\circ$ , flows in a three phase winding consisting of three separate windings spaced  $120$  electrical degrees apart around the surface of a machine, then it will produce a rotating magnetic field of constant magnitude. (15)
- (b) A 208-V, two-pole, 50-Hz, Y-connected wound rotor induction motor is rated at 15 hp. Its equivalent circuit components are (20)

$$\begin{array}{lll} R_1 = 0.2 \Omega & R_2 = 0.12 \Omega & X_M = 15 \Omega \\ X_1 = 0.41 \Omega & X_2 = 0.41 \Omega & \\ P_{\text{mech}} = 250 \text{ W} & P_{\text{misc}} \approx 0 & P_{\text{core}} = 180 \text{ W} \end{array}$$

For a slip of 0.05, find

- (i) The line current  $I_L$
  - (ii) The stator copper losses  $P_{\text{SCL}}$
  - (iii) The air-gap power  $P_{\text{AG}}$
  - (iv) The power converted from electrical to mechanical form  $P_{\text{conv}}$
  - (v) The induced torque  $\tau_{\text{ind}}$
  - (vi) The load torque  $\tau_{\text{load}}$
  - (vii) The overall machine efficiency
  - (viii) The motor speed in revolutions per minute and radians per second.
6. (a) With a neat diagram explain the operation of a Wye-Delta starter for a three phase induction motor. (17)
- (b) A 460-V, 25-hp, 50-Hz, four-pole, Y-connected wound-rotor induction motor has the following impedances in ohms per phase referred to the stator circuit: (18)

$$\begin{array}{lll} R_1 = 0.641 \Omega & R_2 = 0.332 \Omega & \\ X_1 = 1.106 \Omega & X_2 = 0.464 \Omega & X_M = 26.3 \Omega \end{array}$$

- (i) What is the maximum torque of this motor? At what speed and slip does it occur?
- (ii) What is the starting torque of this motor?
- (iii) When rotor resistance is doubled, what is the speed at which the maximum torque now occurs? What is the new maximum torque of the motor?



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7. (a) Using the formula  $\tau_{ind} = kB_R \times B_{net}$ , graphically develop an induction motor torque speed characteristic. (17)

(b) A 208-V, 50 Hz six-pole, Y-connected, 25-hp design class B induction motor is tested with the following results: (18)

- No load : 208 V, 22A, 1200 W, 50 Hz
- Locked rotor : 24.6 V, 64.5 A, 2200 W, 12 Hz
- DC test : 13.5 V, 64 A

Find the equivalent circuit of this motor. For class B motors,  $X_1 = 0.4X_{LR}$  and  $X_2 = 0.6X_{LR}$  can be assumed.

8. (a) Develop the equivalent circuit of a single phase induction motor, running at speed with only its main windings energized. Start from the equivalent circuit at standstill. (12)

(b) Briefly explain how a capacitor-start motor starts. Draw the torque speed characteristic of a capacitor-start motor. (7)

(c) A 120-V,  $\frac{1}{3}$ -hp, 50-Hz, four-pole, split phase induction motor has the following impedances: (16)

$$\begin{aligned} R_1 &= 1.8 \Omega & R_2 &= 2.5 \Omega & X_M &= 60 \Omega \\ X_1 &= 2.4 \Omega & X_2 &= 2.4 \Omega \end{aligned}$$

At a slip of 0.05, the motor's rotational losses are 51W. The rotational losses may be assumed constant over the normal operating range of the motor. If the slip is 0.05, find the following quantities for this motor:

- (i) Input power
  - (ii) Air-gap power
  - (iii)  $P_{conv}$
  - (iv)  $P_{out}$
  - (v)  $\tau_{ind}$
  - (vi)  $\tau_{load}$
  - (vii) Overall motor efficiency
  - (viii) Stator power factor
-

**SECTION - A**There are **FOUR** questions in this section. Answer any **THREE**.

1. (a) If  $A$  and  $B$  are symmetric matrices. Prove that  $AB$  is symmetric if and only if  $A$  and  $B$  commute. (10)

- (b) If  $A$  and  $B$  are non singular square matrices, then show that  $\text{adj}(AB) = \text{adj}B \cdot \text{adj}A$  (15)

- (c) Find the adjoint of the matrix  $\begin{bmatrix} 9 & 2 & 4 \\ 6 & 7 & 3 \\ 1 & 5 & 8 \end{bmatrix}$ . (10)

2. (a) Find the inverse of the matrix  $\begin{bmatrix} 1 & 4 & 3 & 1 \\ 0 & 5 & 4 & 3 \\ 2 & 5 & 3 & 1 \\ 9 & 1 & 2 & 0 \end{bmatrix}$ . (20)

- (b) Find an LU or PLU factorization of the matrix  $\begin{bmatrix} 1 & 2 & 3 \\ 3 & 4 & 8 \\ 2 & 1 & 5 \end{bmatrix}$ . (15)

3. (a) Verify Cayley-Hamilton theorem for the matrix  $\begin{bmatrix} 2 & 7 & 0 \\ 4 & 5 & 1 \\ 3 & 2 & 1 \end{bmatrix}$ . (18)

Also find the inverse of the matrix using this theorem.

- (b) What is a minimal polynomial? Find the minimal polynomial of the matrix (17)

$$\begin{bmatrix} 3 & 2 & 1 \\ 4 & 5 & 1 \\ 7 & 8 & 0 \end{bmatrix}$$

4. (a) Find the eigenvalues and the corresponding eigenvectors of the matrix (20)

$$A = \begin{bmatrix} 5 & -1 & 1 \\ -1 & 2 & -4 \\ 1 & -4 & 2 \end{bmatrix}$$

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**Contd... Q. No. 4(a)**

Also (if possible) construct a matrix  $P$  that will diagonalize  $A$  and verify that  $P^{-1}AP$  is a diagonal matrix.

(b) Reduce the quadratic form (15)

$$q = 4x_1^2 + 3x_2^2 - x_3^2 + 2x_2x_3 - 4x_3x_1 + 4x_1x_2$$

to the canonical form and find the rank, index and signature of the form. Write the corresponding equations of transformation.

**SECTION - B**

There are **FOUR** questions in this section. Answer any **THREE**.

Symbols have their usual meaning.

5. (a) Derive the standard matrices for the following operations on  $\mathbb{R}^3$ : (20)

A rotation of  $-30^\circ$  about the  $x$ -axis, followed by a reflection about the  $yz$ -plane, followed by an orthogonal projection on the  $zx$ -plane

Hence find the standard matrix for the stated composition of linear operators on  $\mathbb{R}^3$ . Also find the image of the triangle with vertices  $(-1, 2, -3)$ ,  $(1, -2, -3)$ ,  $(-1, -2, 3)$  with respect to the stated composition of linear operators on  $\mathbb{R}^3$ .

(b) Determine whether the following set of vectors (15)

$$A_1 = \begin{bmatrix} 3 & 6 \\ 3 & -6 \end{bmatrix}, A_2 = \begin{bmatrix} 0 & -1 \\ -1 & 0 \end{bmatrix}, A_3 = \begin{bmatrix} 0 & -8 \\ -12 & -4 \end{bmatrix}, A_4 = \begin{bmatrix} 1 & 0 \\ -1 & 2 \end{bmatrix}$$

can form a basis for  $M_{22}$ . If so, find the coordinate of  $A = \begin{bmatrix} 2 & 0 \\ -1 & 3 \end{bmatrix}$  relative to the basis

$S = \{A_1, A_2, A_3, A_4\}$ . Also find the vector  $B \in M_{22}$  whose coordinate vector with respect to the basis  $S$  is  $(B)_S = (-1, 2, -3, 4)$ .

6. (a) Determine the eigenvalues and the corresponding eigenvectors of the operations  $T: \mathbb{R}^3 \rightarrow \mathbb{R}^3$  defined by the reflection about the  $yz$ -plane by argument. Hence check your conclusion by calculating the eigenvalues and the corresponding eigenvectors from the standard matrix for  $T$ . (10)

(b) Determine whether the following polynomials span  $P_2(x)$ : (10)

$$p_1 = 1 - x + 2x^2, p_2 = 3 + x, p_3 = 5 - x + 4x^2, p_4 = -2 - 2x + 2x^2.$$

**MATH 259/EEE**

**Contd... Q. No. 6**

(c) Find a subset of the vectors that forms a basis for the space spanned by the vectors (15)

$$\mathbf{v}_1 = (1, -1, 5, 2), \mathbf{v}_2 = (-2, 3, 1, 0), \mathbf{v}_3 = (4, -5, 9, 4), \mathbf{v}_4 = (0, 4, 2, -3), \mathbf{v}_5 = (-7, 18, 2, -8)$$

then express each vector that is not in the basis as a linear combination of the basis vectors.

7. (a) Let  $A = \begin{bmatrix} -1 & 2 & 0 & 4 & 5 & -3 \\ 3 & -7 & 2 & 0 & 1 & 4 \\ 2 & -5 & 2 & 4 & 6 & 1 \\ 4 & -9 & 2 & -4 & -4 & 7 \end{bmatrix}$ . Find bases for the column space of  $A$  and

nullspace of  $A^T$ . Verify that every vector in the column space of  $A$  is orthogonal to every vector in the nullspace of  $A^T$ . (15)

(b) Let  $\mathbb{R}^4$  have the inner product  $\langle \mathbf{u}, \mathbf{v} \rangle = u_1v_1 + 2u_2v_2 + 3u_3v_3 + 4u_4v_4$ . Use the Gram-Schmidt process to transform the basis  $\{\mathbf{u}_1, \mathbf{u}_2, \mathbf{u}_3, \mathbf{u}_4\}$  into an orthonormal basis. (20)

$$\mathbf{u}_1 = (0, 2, 1, 0), \mathbf{u}_2 = (1, -1, 0, 0), \mathbf{u}_3 = (1, 2, 0, -1), \mathbf{u}_4 = (1, 0, 0, 1).$$

8. (a) Determine whether the function (10)

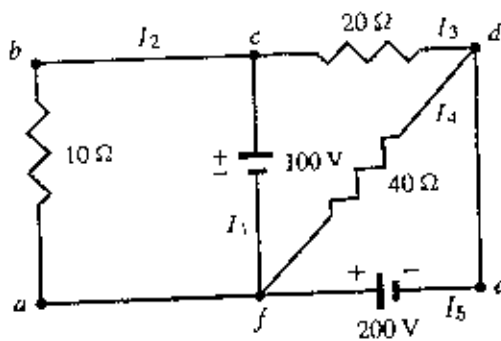
$$T : M_{22} \rightarrow \mathbb{R} \text{ defined by } T\left(\begin{bmatrix} a & b \\ c & d \end{bmatrix}\right) = 3a - 4b + c - d$$

is linear transformation or not. Justify your answer.

(b) If  $T : V \rightarrow W$  is linear transformation, then prove that (15)

(i) The kernel of  $T$  is a subspace of  $V$  and (ii) The range of  $T$  is a subspace of  $W$ .

(c) Find the currents in the circuit given below by using linear equations: (10)



*Amr*

L-2/T-1/EEE

Date : 15/01/2015

BANGLADESH UNIVERSITY OF ENGINEERING AND TECHNOLOGY, DHAKA

L-2/T-1 B. Sc. Engineering Examinations 2013-2014

Sub : **HUM 277** (Fundamentals of Economics)

Full Marks: 210

Time : 3 Hours

USE SEPARATE SCRIPTS FOR EACH SECTION

The figures in the margin indicate full marks.

**SECTION – A**

There are **FOUR** questions in this section. Answer any **THREE**.

1. (a) What do you understand by production possibility frontier (PPF)? Illustrate how resources can be allocated in a society with the help of production possibility frontier. (20)  
(b) Discuss the following applications of production possibility frontier: (15)
  - (i) Choice between necessities and luxuries.
  - (ii) Choice between current consumption goods and investment.
  - (iii) Choice between public goods and private goods.
  
2. (a) Explain the concept of demand function. (5)  
(b) Discuss the factors that affect the demand for a commodity. (8)  
(c) What is meant by market demand for a commodity? Explain graphically. (7)  
(d) (i) Calculate the equilibrium price and quantity from the following demand and supply functions and show the results in a graph. (15)
$$QD_x = 50 - 3P_x$$
$$QS_x = -30 + 5P_x$$
  - (ii) If a per unit tax of Tk. 0.50 is imposed, how will it affect the equilibrium price and quantity?
  - (iii) If Government provides a subsidy of Tk. 2 per unit, what will happen to the equilibrium price and quantity?
  
3. (a) Discuss the cardinal theory of utility maximization. (10)  
(b) Explain in detail the price elasticity of demand. (10)  
(c) Derive a demand curve with the help of indifference curve and show that price effect is equal to substitution effect and income effect. Present and explain all necessary diagrams. (15)
  
4. (a) What are the assumptions of Solow's growth model? (5)  
(b) Derive the steady state condition of Solow's growth model and show it graphically. (20)  
(c) What are the implications of this growth model in case of Bangladesh? (10)

Contd ..... P/2

**HUM 277/EEE**

**SECTION – B**

There are **FOUR** questions in this section. Answer any **THREE**.

5. (a) What are the assumptions of a perfectly competitive market? Explain them. (10)  
 (b) Graphically explain the short-run equilibrium of a firm under perfect competition. (15)  
 (c) From the following demand and cost function of a firm, calculate the profit maximizing level of output and maximum profit. (10)

$$Q = 100 - P$$

$$C = \frac{1}{3}Q^3 - 7Q^2 + 111Q + 80$$

6. (a) How would you derive the long-run average cost curve of a firm from its short-run average cost curves? (10)  
 (b) Complete the following table and explain the relation among various short-run average cost curves. Plot all the short-run average cost curves in a graph. (15)

Quantity	FC	VC	TC	AFC	AVC	AC	MC
1	80	30					
2	80	40					
3	80	45					
4	80	55					
5	80	75					
6	80	120					

- (c) A manufacturer has a fixed cost of \$60,000 and a variable cost of \$6 per unit made and sold. Selling price is \$9 per unit (10)  
 (i) Find the revenue, cost and profit functions using  $q$  for the number of units.  
 (ii) Compute profit if 25,000 units are made and sold.  
 (iii) Find the break-even quantity.  
 (iv) Construct the break-even chart. Label the cost and revenue lines, the fixed cost line and the break-even point.
7. (a) Explain what is meant by (i) constant returns to scale (ii) increasing returns to scale and (iii) decreasing returns to scale. (15)  
 (b) What are the advantages and disadvantages of division of labour? Explain briefly. (20)
8. (a) What are the determinants of development? (15)  
 (b) List and explain the characteristics of developing countries? (15)  
 (c) Write briefly about aspects of underdeveloped market in developing countries? (5)

**SECTION – A**

There are **FOUR** questions in this section. Answer **Q. No. 1** and any **TWO** from the rest.

1. Read the passage carefully and answer the questions that follow:

**(45)**

The West has always been making a big fuss over recycling as if it is a very trendy thing to do. By doing this they both claim and consider themselves to have evolved as the 'Responsible' ones of the Earth, while the rest seem to appear as the 'Reckless' ones. But, a closer view shows that all the signs, all their brandings and all the publicity stunts they have been making refer to the 'conscientious' act of recycling paper to make paper or recycling glass to make glass. And all their hustle-hustle should make us, the representatives of the rest of the world, think ... "has there been any time in our known memory when we haven't seen stuff without being recycled?"

We didn't.

Our moms' old 'sarces' were preserved and then sent to the village-home for 'kanthas' to be stitched; our old dresses or dad's old shirts became dusters or wipe cloths; our old school note books became packets for 'jhaalmuries'; piles of old newspapers were sold to buy silly stuff; broken utensils became new cooking pots via 'kotkoti' ... And if you still think, we don't recycle, then, it is our time to pose a question, "Aren't you guys simply recycling ideas that we have recycled all along?" Whatever their reply is, we must know that, we are not the west of waste; we have 'become' the waste of west and it is high time we cease to believe them blindly. Amen.

Questions:

- (a) Find an appropriate title for the passage and then justify your title.
  - (b) Who do you think is doing the 'recycling' properly— the East or the West? Why?
  - (c) Could you possibly discuss the connotation of the tags— "west of waste" and "waste of west"?
  - (d) The passage ends with "Amen" which suggests it ended with a prayer; what is it the writer praying for?
  - (e) Are you familiar with the Eastern pattern of recycling that the passage highlights?
2. (a) Discuss briefly the different parts of a report. **(10)**
- (b) Write a complaint letter to the General Manager of Bangladesh Tele-Communication Limited drawing his attention to the fact that you did not get telephone connection in due time despite completing necessary formalities. **(10)**
- (c) Give phonetic transcription of the following words (Any Five): **(10)**

Executive, loyal, smooth, yesterday, schedule, education.

**HUM 135/EEE**

3. (a) What are the different styles (of presentation) of a letter? (5)  
(b) Write a composition on any one of the following: (15)  
(i) Capital Punishment for War Criminals  
(ii) Virtualization of Relationships  
(iii) My Most Interesting Classmate  
(c) Write a dialogue between a daughter with a dark skin and her mother. (10)
4. (a) Transform the following sentences as directed (Any five): (10)  
(i) Catch me if you can. (Simple)  
(ii) I have found a letter that my mother had written to my father twenty years ago.  
(Compound)  
(iii) He confessed his crimes. (Complex)  
(iv) He expected more than he deserved. (Compound)  
(v) Laugh your lung out. (Complex)  
(vi) If I'd (had) known this, I wouldn't let him go. (Simple)  
(b) What is an inventory report? (5)  
(c) Write short notes on any three of the following: (15)  
(i) Diphthongs  
(ii) Importance of 'fillers' in a dialogue.  
(iii) Qualities of a Sales Letter  
(iv) Differences between a 'Quotation' and 'Tender'.

**SECTION – B**

There are **FOUR** questions in this section. Answer **Q. No. 5** and any **TWO** from the rest.

5. (a) Explain with reference to the context any two of the following: (15)  
(i) "It will do you good to sit down for a while and chat with me."  
(ii) "But the more I read the more complicated the subject seemed to me and the more conscious I grew of my ignorance."  
(iii) "We want to be rescued; and of course we shall be rescued."  
(b) Answer any one of the following: (15)  
(i) What evidence do you find that Jack is likely to be Ralph's opponent?  
(ii) How does Orwell make a balance in criticizing both the colonizer and the colonized?  
(c) Answer any three of the following: (15)  
(i) Why did the writer want to have a book of philosophy?  
(ii) What did the astrologer look like?  
(iii) Why was the astrologer unable to carry on the work of his forefathers in his village?  
(iv) Justify the title of Golding's 'Fire on the Mountain'.  
(v) Why did the writer say the young Buddhist Priests were the worst?



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6. (a) Recast and correct any ten of the following sentences: (15)
- (i) The widow woman entered the courtroom slowly.
  - (ii) The orange tasted badly.
  - (iii) I have more mistakes on my paper than him.
  - (iv) The reason I am ill is because I ate too much.
  - (v) Mr. Hardy is a professional cashier.
  - (vi) We suspicioned that something was amiss.
  - (vii) Each individual person must handle the question.
  - (viii) The boat slipped out of the harbor, I suddenly realized I was on my way to Myanmar.
  - (ix) You should take the medicine every alternative day.
  - (x) This law is able to be evaded.
  - (xi) Father objected to Mary singing.
  - (xii) Due to the weather, there was a large crowd.
- (b) Give meanings of and make sentences with any ten of the following words: (15)
- Altruism, Bicker, Cataclysm, Demolish, Equitably, Fealty, Grouchy, Indictment, Meddle, Obstinate, Pauper, Retard.
7. Amplify the idea in any one of the following: (30)
- (i) He prayth best who loveth best.
  - (ii) The crown and glory of life is character.
8. Write a précis of the following: (30)
- Scholars, writers and teachers in the modern academic community have strong feelings about acknowledging the use of another person's ideas. In the English-speaking world, the term *plagiarism* is used to label the practice of not giving credit for the source of one's ideas. Simply stated, plagiarism is taking the ideas, or words and using them as one's own. The penalties for plagiarism vary from situation to situation. In many universities, the punishment may range from failure in a particular course to expulsion from the university. In the literary world, where writers are protected from plagiarism by international copyright laws, the penalty may range from a small fine to imprisonment and a ruined career. Students, as inexperienced scholars themselves, must avoid various types of plagiarism by being self-critical in their use of other scholars' ideas and by giving appropriate credit for the source of borrowed ideas and words. Plagiarism by accident, or oversight, sometimes is the result of the writer's inability to decide or remember where the idea came from. He/she may have read it long ago, heard it in a lecture since forgotten, or acquired it second-hand or third-hand from discussions with colleagues. Although this type of plagiarism is the least serious, it must be guarded against. Plagiarism through ignorance is simply a way of saying that inexperienced writers often do not know how or when to acknowledge their sources. The techniques for documentation — note-taking, quoting, footnoting, listing, bibliography — are easily learned and can prevent the writer from making unknowing mistakes or omissions in his/her references. The most serious kind of academic thievery is plagiarism by intention. The writer, limited by his/her laziness and dullness, copies the thoughts and language of others and claims them for his/her own.
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