FACULTY OF ENGINEERING

BE I Semester (CBCS)(Backlog) Examination, November /December 2018

Subject: Engineering English

Time: 3 Hours   **Max. Marks: 70**

Note: I. Answer all questions in Part-A, & any five Questions from Part-B
       II. Answers to the questions of Pat – A must be at one Place and in the same order as they occur in the question paper.
       III. Missing data, if any, may be suitably being assumed.

PART-A(20 Marks)

1. Match the column 'A' with Colum 'B'   (2)

	A	B
1	Break even	a. Kaleidoscope
2	A situation or passion that is always changing	b. Squeamish
3	To feel blue	c. Feel depressed or disconnected
4	Easily upset by unpleasant sights or situations	d. To have income equal to expenses

2. Pick the correct antonym from the options given to the underlined words of the following sentences.   (2)
    a. The army consolidated its position.
      i. Raised   ii. Injured   iii. Weakned   iv. Strengthened
    b. He is shrewd politician.
      i. Clever   ii. Foolish   iii. dishonest   iv. great

3. Fill in the blanks with words in brackets after adding suitable suffixes.   (2)
    1. Write a _____essay on the Golconda Fort. (describe)
    2. He is an _____man. (ambition)

4. Give meanings of the following technical vocabulary.   (2)
    1.Biogas   2. Flammable

5. Convert the following into passive voice.   (2)
    1. The machine wraps the bread automatically.
    2. We have sent these report to all our customers.

6. Rewrite the following sentences adding question tags to them.   (2)
    1. You would not have asked me for money.
    2. The flowers smell wonderful.

7. Rewrite the following sentences with necessary corrections.   (2)
    1. I am thinking that Banu will come today.
    2. The principal congratulated Mohamad for his brilliance.

8. **Rewrite the following sentences as directed.** (2)

   1. No other girl is as intelligent as Lohitha. (Convert into superlative degree)

   2. In spite of doing hard work, she failed to come the task.(Convert into compound sentences)

9. **Convert the following into indirect speech** (2)

   1. The manager said to me, "Where is your application?"

   2. The said "Do you walk on the grass.

10. **Fill in the blank with appropriate form of the verb given in the bracket** (2)

    1. _____(Do/Does) your parents live with your brother?

    2. Collecting stamps_____(is/there) my brother's hobby.

PART-B (50 Marks)

11. (i) What are the specific features of human communication? (5)
    (ii) Write about the barriers of communication? (5)

12. (i) What is the importance of listening? (5)
    (ii) Give some tips for effective listening. (5)

13. (i) Write a paragraph of hundred words on "the book that influence me the most." (5)
    (ii) Expand the proverb " little strokes fell great oaks." (5)

14. Write a letter to your younger brother suggesting him to prepare for the competitive exams. (10)

15. Write meanings to the following pairs of words and use the words in your own sentences.
    a. canvas-canvass   b. rise-raise   c. lose-loose
    d. dessert-desert   e. premise -premises (10)

16. What are the plans of Satya Nadella as CEO, Microsoft to make the organization strong? (10)

17. What is punctuation? Mention any five punctuation marks with examples. (10)

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FACULTY OF ENGINEERING

B.E. I-Year (Backlog) Examination, November / December 2018

Subject: Engineering Mechanics

Time: 3 hours   **Max. Marks: 75**

Note: Answer all questions from Part-A. Answer any FIVE questions from Part-B.

PART-A (25 Marks)

1. State and explain "Principle of transmissibility of force". (2)
2. Define the terms moment of a force and couple. (3)
3. Explain different types of friction in brief. (2)
4. State the laws of friction. (3)
5. Locate the centroid of a quarter circle of radius "r" with the fig and axis. (2)
6. State pappus theorems. (3)
7. What is the different between kinematics and kinetics? (2)
8. A stone is thrown vertically upwards into the air reaches the ground in 5 sec. How much height does it go? (3)
9. State and explain work energy principle for translation. (2)
10. Define the terms direct collision and indirect collision. (3)

PART-B (50 Marks)

11. Find the resultant of given system of forces. (10m)
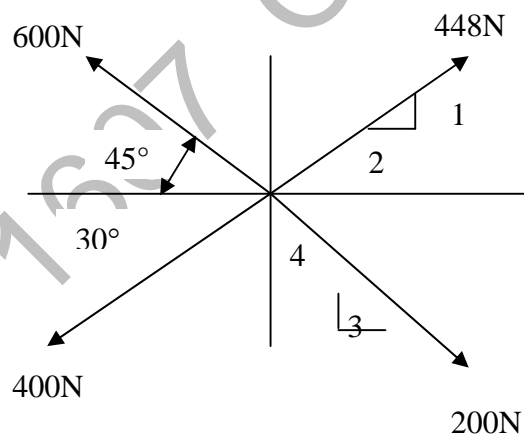
12. A uniform ladder is 7.2m long and weight 180N. It is placed against a vertical wall at an angle of 60° with the ground. How far along the ladder can a 700 N man climb before ladder is on the verge of slipping. The angle of friction at all contact surface is 15°. (10m)

13. (a) Find centroid of a triangle with reference to y axis. (5m)
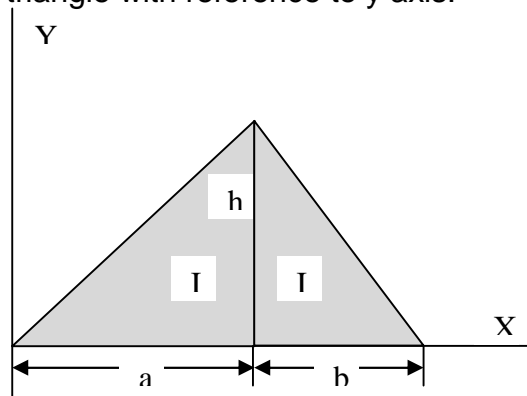


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(b) Determine moment of inertia of the T section with respect to centroidal axis xx and also about its base line. (5m)
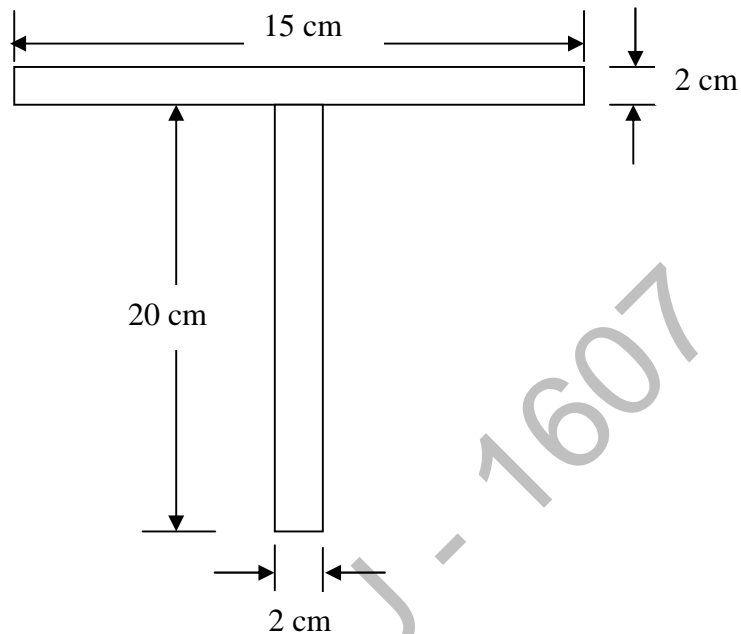

14. (a) The velocity of a particle moving in a straight line is given by the expression $V = 2t^3 - t^2 - 2t + 4$. The particle is found to be at a distance of 10m from station A after 2 seconds. Determine (a) acceleration (b) displacement after 6 seconds (6m)

(b) When the angular velocity of a 1.2m diameter pulley is 3 rad/s, the total acceleration of a point on its rim is $9m/s^2$. Determine angular acceleration of the pulley at this instance? (4m)

15. (a) Find the velocity of block B, after 6sec starting from rest. (5m)
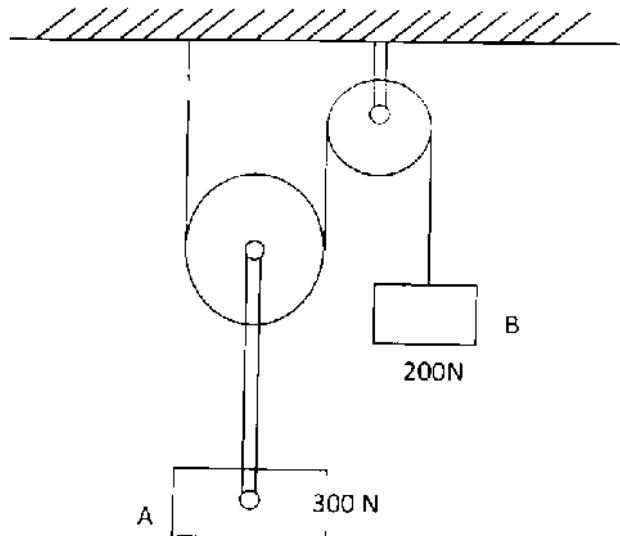
(b) Determine the constant force P that will give the system of bodies show in fig, velocity of 3 m/s after moving by 4.5 m from rest. (5m)

16.(a) Two locomotives on opposite bank of a canal pull a vessel moving parallel to the
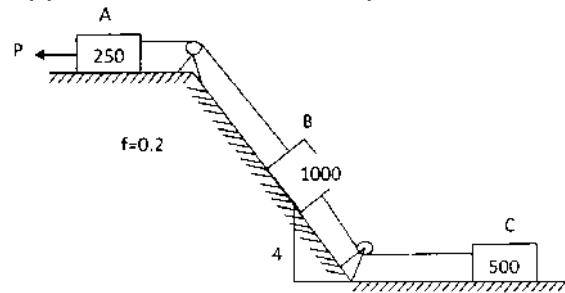
bank. The tension in the ropes is 2000N and 1500N while the angle between them is 60°. Find the resultant pull on the vessel and angle between each rope and sides of canal. (5m)
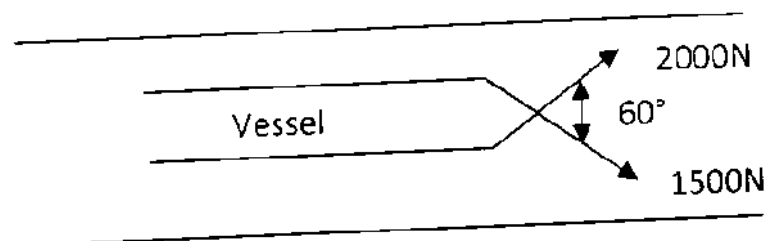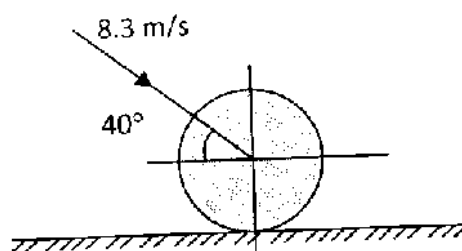

(b) A cylinder of weight 500N is resting in a groove. The diameter of cylinder is 2 m. If coefficient of friction at all surface is 0.40, what is the value of couple to be applied to start clock wise rotation. (5m)
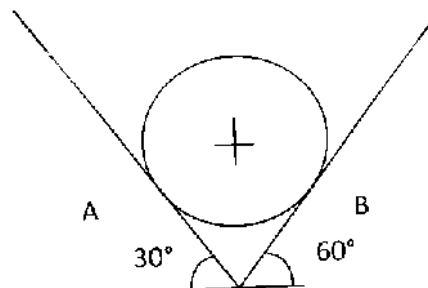
17. Answer any two of the following: (10m)
   (a) Parallel axis theorem for moment of inertia.
   (b) A stone dropped into a well is heard to strike the water in 3.5 seconds. Find the depth of the well assuming the velocity of sound is 335m/sec.
   (c) A tennis ball strikes the floor at a velocity of 8.3 m/s, inclined 40° with the horizontal floor as shown in fig. If the coefficient of restitution is 0.43, determine the velocity of the ball after impact.

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