Seat No.

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MAR_APR 2026 SUMMER EXAMINATION

1154 B.Tech. CBCS

Sub. Name: Engineering Management

Sub. Code: 66875/81516/81793

Day and Date: Wednesday,27-05-2026 **Total Marks: 70**

Time: 10:30 AM To 01:00 PM

Instructions:
1. **All questions are compulsory**
2. **Assume suitable data wherever necessary and mention it boldly**
3. **Draw neat labelled diagrams wherever necessary**
4. **Figures to the right indicate full marks**

Q1) Solve the following **[11]**

a. List out the principles of management given by Henry Fayol. Explain any 2 in detail. **[6]**

b. What are the functions of management ? Explain in brief planning function. **[5]**

Q2) Solve the following **[12]**

a. What do you understand by network updating ? Why it is necessary ? **[5]**

OR

Write a note on Bar chart with suitable example.

b. Draw the network, determine critical path, and find out project duration, total float and free float by using the data. **[7]**

Activity	1-2	2-3	2-4	3-4	3-5	4-6	5-6
Duration	14	13	16	15	17	19	12

Q3) Solve the following **[12]**

a. For the information given in the table determine the critical path and standard deviation for the network. Determine the probability of completing the project in 35 days. **[7]**

(For Z=1.0, Pr = 84.13% and Z=1.1, Pr = 86.42%)

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Activity	Optimistic time	Most likely time	Pessimistic time
1-2	6	9	18
1-3	5	8	17
2-4	4	7	22
2-5	4	7	10
3-4	4	7	16
3-5	2	5	8
4-5	4	10	22

b. Explain step by step how will you determine the probability of completing certain project in scheduled time by using PERT network. **[5]**

OR

Explain concept of precedence network.

Q4) Solve the following **[12]**

a. The rate of use of particular material from store is 20 units per year. The cost of placing and receiving an order is Rs 40/-. The cost of each unit is Rs 100/-. The cost of carrying inventory in percent per year is 0.16. Determine the EOQ. **[6]**

b. Explain ABC Analysis concept with neat graph. **[6]**

Q5) Solve the following **[12]**

a. With suitable example explain the term time value of money. **[4]**

b. Suggest which machine should be purchased from the following data if rate of interest is 12 % per year. Use present worth method. **[8]**

	Machine 'A'	Machine 'B'
Initial cost (Rs.)	100000	170000
Annual O/M cost (Rs.)	60000	50000
Salvage value(Rs.)	10000	20000
Service life (Years)	10	10

Q6) Attempt all the questions **[11]**

a. Explain the safety measures to be taken on construction site. **[4]**

b. Draw a typical layout for site of construction of multistoried building. **[4]**

c. Define ISO 9000. Write the benefits of ISO 9000 **[3]**

End Of Question Paper

Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -
This Question Paper may be distributed for following Subjects as common code.

सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

1] (101) Bachelor of Engineering (66875) Engineering Management Part 3 SEM 6
2] (101) Bachelor of Engineering (81793) Engineering Management Part 3 SEM 6
3] (1154) B.Tech. CBCS (81516) Engineering Management Part 3 SEM 6

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