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OCT-NOV 2025 WINTER EXAMINATION

1154 B.Tech. CBCS

Sub. Name: Engineering Management

Sub. Code: 66875/81516/81793

Day and Date: Monday ,15-12-2025 **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 followings. **[11]**

A. Define organization and explain the types of organization in detail. **[6]**

B. Explain the importance of planning function in construction management. **[5]**

Q2) Solve the followings. **[12]**

A. **[7]**

Details of activities of a project and their interrelationship are given below: A is starting activity. Activity B follows A. Activities C, E and H succeeds B. C controls activity D. E controls activity F. H controls activity I. Activity G can commence after activity F is over. Activity J can start once activity D and I are over. G and J are the last activities. Draw network, mark critical path and calculate project duration. Also calculate EST, EFT, LST, LFT and Total Float for each activity.

Activity	A	B	C	D	E	F	G	H	I	J
Duration	2	2	3	6	9	12	9	3	4	8

B. Write a short note on - Critical path & Dummy activity **[5]**
OR
Differentiate between CPM and PERT Network.

Q3) Attempt any Two. **[12]**

a) Explain step by step how will you determine the probability of completing certain project in scheduled time by using PERT network.

b) Explain concept of precedence network.

c) Explain time estimates in PERT.

Q4) Solve the followings. **[12]**

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

B. A construction company uses 1000 cement bags every year for construction **[6]**

activity. It requires Rs. 170 to place order. Each bag costs Rs. 320. If inventory carrying costs is 20 % of an average inventory investment. Determine EOQ.

Q5) Solve the followings. **[12]**

A. Explain 'Break Even Analysis' with neat sketch. **[6]**

B. By using Benefit Cost ratio method, suggest whether following project be accepted or not? Initial investment = Rs. 280000, i = 10% **[6]**

Year	1	2	3	4
Benefits (Inflows)	50000	80000	100000	150000

Q6) Attempt any Two. **[11]**

a) Draw a site layout for bridge project.
b) What are the factors considered for site layout?
c) Enlist the advantages of a good site layout.

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