

INDRAJEET PANDIT
PART TIME GUEST FACULTY

**STUDY MATERIAL OF ENTREPRENEURSHIP & MANAGEMENT (6th
SEM)**

Questions:

1. Write any two users of financial statements.
2. Write any one advantage of accounting.
3. Write any one example of voucher.
4. Write any two examples of current assets.
5. Differentiate between Book Keeping and Accounting.
6. Discuss the objectives of Accounting.
7. Explain Cost concept.
8. What is mean by accounting standard? What is the main objective of accounting standard?
- 9 Explain the following concepts.
 - a. Business entity concept
 - b. Going concern concept
 - c. Revenue recognition concept
9. Explain the utility of Accounting Standards.
10. Which principle assumes that a business enterprise will not be liquidated in near future? Ans. Going concern concept.
- 11 “Closing stock is valued lower than the market price” which concept of accounting is applied here?
Ans. Conservatism (Prudence) concept.
12. An asset may defined as a bundle of services“ – explain with an example.

13. Under which accounting principle, quality of manpower is not recommended in the books of accounts?

14. A Bill of Exchange must be in writing.

15. It must contain an order (and not a request) to make payment.

16. The order of payment must be unconditional.

17. The amount of bill of exchange must be certain.

18. The date of payment should be certain.

19. It must be signed by the drawer of the bill.

20. It must be accepted by the drawee by signing on it.

21. The amount specified in the bill of exchange is payable either on demand or on the expiry of a fixed period.

22. The amount specified in the bill is payable either to a certain person or to his order or to the bearer of the bill.

23. It must be stamped as per legal requirements.

24. What Factors contribute to the development of entrepreneurship?

25.

QUESTION BANK

SUBJECT- INDUSTRIAL ENGG. AND QUALITY CONTROL

6TH SEM MECHANICAL BRANCH

SHORT QUESTION:- (2 MARKS)

1. Define plant location and types of plant location.
2. Define plant layout and types of plant layout.
3. State the scopes of operation research.
4. How LPP can be defined?
5. What is feasible solution of LPP?
6. Define product scheduling.
7. Define CPM & PERT.
8. Define network.
9. What is an event?
10. What is an activity?
11. Define Dummy activity.
12. What do you mean by critical path?
13. Define EST & LFT.
14. State Fulkerson's Rule for numbering.
15. How expected time is calculated from PERT analysis?
16. What is batch production give an example?
17. Define inventory.
18. What are the different costs associated with inventory?
19. What is the need of inventory control?
20. Define EOQ.
21. Define safety stock.
22. Define lead time.
23. Define re-order level.
24. Write different types inventory models.
25. Define P-system & Q-system inventory.
26. State the objective of inspection.
27. Define quality and why we need to control it?
28. Define statistical control.
29. What is control chart? Types of control chart.
30. Define TQM.
31. Define JIT.
32. Define lean manufacturing.
33. Define 6 sigma limits.
34. Define plant maintenance and its objective.
35. State different type of plant maintenance.

LONG QUESTIONS:- (5 MARKS)

1. Differentiate between plant location and plant layout.
2. What are the factors influencing the plant location?
3. Explain job type, batch type and continuous production with their characteristics.
4. Differentiate between product and process layout.
5. Solve the LPP by graphical method. $\text{Max } Z = 3x_1 + 4x_2$ & s.t $4x_1 + 2x_2 \leq 80$, $2x_1 + 5x_2 \leq 60$, $x_1, x_2 \geq 0$
6. Solve the LPP by graphical method. $\text{Min } Z = 10x_1 + 8x_2$ & s.t $2x_1 + 4x_2 \leq 80$, $3x_1 + 2x_2 \geq 30$, $4x_1 + 3x_2 \geq 40$, $x_1, x_2 \geq 0$

7. What is a project? Differentiate between CPM & PERT.

8. Draw the network and find the critical path

ACTIVITY	TIME	ACTIVITY	TIME
1-2	5	5-6	8
1-3	2	5-7	4
2-4	3	6-8	7
3-4	1	7-8	1
3-5	6	8-10	2
4-9	5	9-10	5

9. Draw the network and find the critical path.

ACTIVITY	PREDECESSOR	TIME(DAYS)
A	-	6
B	-	8
C	A	3
D	A	4
E	B,D	6
F	B,C,D	10
G	E	3

10. Derive EOQ from basic inventory model.

11. Describe P-system and Q-system of inventory control.

12. Explain different types of inspection.

13. Describe quality control and objective of quality control.

14. Differentiate between variable charts and attribute chart.

15. In a manufacturing process the no. Of defectives found in the inspection of 15 lots of 400 times each given below.

Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
No of defects	2	5	0	14	3	0	1	0	18	8	6	0	3	0	6

Determine the trial control limits for np chart & state weather the process is in control.

16. Explain the elements of TQM.

17. Explain JIT and objectives of TQM.

18. Explain lean manufacturing.

19. Explain 6 sigma.

20. Explain different types of plant maintenance.

LONG QUESTION :- (10 MARKS)

1. A small project is composed of the following activities whose time estimates are given in day. Draw the network, find critical path and compute variance.

ACTIVITY	t_o	t_m	t_p
1-2	1	2	5
1-3	2	4	6
1-4	1	2	4
2-5	1	1	3
3-5	2	3	4
4-6	6	4	3
5-6	3	6	7

2. Explain ABC analysis, advantages and limitations.

3. Compare between \bar{X} & R chart with P-chart.
4. Explain TQM model, principle, objective, benefits & elements of TQM.
5. Explain 7s.
6. What is plant maintenance? Objective, importance of plant maintenance.
7. Explain the duties, functions & responsibilities of plant maintenance department.

Prepared by- Swagatika

Babu

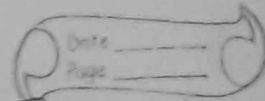
Lect-Mechanical Engg.

Govt. Polytechnic sambalpur
(rengali)

Question Bank

Automobile Engg.

6th Semester, Mechanical Engg.



Short questions:

- (1) What do you mean by Automobile?
- (2) Give two examples of heavy transport vehicles.
- (3) Give one example each from petrol vehicle and diesel vehicle.
- (4) Define about chassis of an automobile.
- (5) What do you mean by frame of vehicle?
- (6) Define about axles of the automobile.
- (7) What is the function of radiator in the vehicle?
- (8) Classify the engine according to the arrangement of cylinders.
- (9) Why and where clutch is used?
- (10) What is the function of pressure plate in clutch?
- (11) Why clutch plate is provided in clutch?
- (12) Give examples where single plate clutch is used.
- (13) Mention examples where multiplate clutch is used.
- (14) What is the function of Gear Box?
- (15) Why dog clutch is provided in the constant mesh gear box?
- (16) Why and where lay shaft is used in Gear Box?
- (17) What do you mean by synchronization?
- (18) What is the function of propeller shaft?
- (19) Why differential is provided in vehicles?
- (20) When self locking differential is used?
- (21) What is the function of brake?
- (22) Give one advantage and limitation of drum brake.
- (23) Write down one advantage and limitation of disc brake.
- (24) Which law is obeyed by hydraulic brake?
- (25) What is the function of by-pass port?
- (26) Why master cylinder is used?

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- (27) Write down about the reason for which slave cylinder is used.
 - (28) Write one advantage and limitation of hydraulic brake.
 - (29) Give one practical application of air brake.
 - (30) Write down two advantages of air brake.
 - (31) What do you mean by air assisted hydraulic brake?
 - (32) What do you understand by vacuum brake?
 - (33) Why horn is used in automobiles?
 - (34) Why lighting circuit is required in vehicles?
 - (35) For what purpose cut-out circuit is used?
 - (36) Why voltage current regulation circuit is used?
 - (37) What is the function of flasher circuit?
 - (38) Write down the name of any ignition trouble and also the remedy.
 - (39) What do you mean by spark plug?
 - (40) What amount of spark plug gap is generally provided?
 - (41) Define about suspension system in automobiles.
 - (42) Give one advantage and one limitation of conventional suspension system.
 - (43) Give two limitations of independent suspension system.
 - (44) Give two advantages of coil spring.
 - (45) What is the function of torsion bar?
 - (46) For what purpose telescopic shock absorber is used?
 - (47) Why tyre is used in vehicles?
 - (48) What do you mean by tyre specifications?
 - (49) Write down any one tyre wear and its remedy.
 - (50) What do you mean by engine cooling?
 - (51) What do you understand by engine lubrication?
 - (52) Which is the simplest type of lubrication system?

- (53) Define about carburation?
- (54) What is air-fuel ratio?
- (55) Why condenser is used in ignition system?
- (56) What is the purpose of using distributor?
- (57) Give one advantage and one limitation of Magneto ignition system.
- (58) Why multipoint fuel injection system is used?
- (59) What is the function of fuel feed pump?
- (60) For what purpose fuel injector is used?
- (61) Why fuel filter is used in diesel engine?
- (62) Why air injection system is not commonly used now-a-days?

Long questions;

- (63) Explain about the need of automobile and its classifications.
- (64) Draw the layout of chassis and write about its major parts.
- (65) Write down the manufacturer's specifications of any one scooter and one car.
- (66) Classify about the engines used in automobiles.
- (67) Why clutch system is needed in automobile?
- (68) Explain in detail about single plate clutch.
- (69) Write down about multiplate clutch with application.
- (70) Why gearbox is provided?
- (71) Write about sliding mesh and constant mesh gear box.
- (72) Explain about 4 speed gear box.
- (73) Write down about constructional features of propeller shaft.
- (74) Why differential is need?
- (75) Explain about the conventional differential and self locking differential.

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- (76) Explain about drum brake and disc brake.
 - (77) Explain in detail about hydraulic brake in vehicles.
 - (78) Explain in brief about air brake.
 - (79) Explain about the air assisted hydraulic brake.
 - (80) Explain in detail about vacuum brake.
 - (81) Explain about lighting system in automobiles.
 - (82) Explain in detail about cut-out circuit.
 - (83) Explain elaborately about voltage current regulation circuit.
 - (84) Write down about flasher circuit.
 - (85) Write about the ignition troubles with remedies.
 - (86) Explain about the spark plug along with specifications.
 - (87) Explain in detail about the conventional suspension system used for both front axles and rear axles.
 - (88) Write a short note about the independent suspension system used in cars.
 - (89) Write down in detail about telescopic shock absorber.
 - (90) Write about the causes of tyre wear and remedies.
 - (91) Write down about the necessity of cooling, cooling defects and remedies.
 - (92) Explain about splash and pressure lubrication systems.
 - (93) Write down about force feed and dry sump lubrication systems.
 - (94) Explain about Battery ignition system.
 - (95) Explain in detail about Magneto ignition system.
 - (96) Explain about Multipoint fuel injection system.
 - (97) Explain in brief about fuel feed pump.
 - (98) Explain about fuel injector in diesel engine.
 - (99) Write in short about diesel fuel filter.
 - (100) Write briefly about Solid Injection system.

Prepared By :- Sachidananda Padhi

(P-4) Lect. (Mech. Engg.)
Govt. Poly., SGP, Patali

Question Bank

Sub-AMC.

6th sem mechanical branch

Short Questions

1. Write the name of electrolyte used in ECM.
2. What are the abrasive material used for machining of hard metal?
3. What is plasma?
4. Write the tool name used in LBM?
5. What are the application of PAM?
6. Define automation?
7. Define NC?
8. What is punch card and punch tape?
9. What is interpolation and it's type?
10. What is Robot ?
11. What is Robot sensing?
12. Explain the terms work cell and interlocks?
13. What are the benefits of CAD
14. What is CRT?
15. Which software used in CIM?
16. Why FMS is required?
17. Write the type of FMS?

Long questions(5 marks)

1. What is LBM? Explain it principle of operation .
2. What is EBM? Explain its working.
3. What is ECM ? Explain with help of a suitable diagram.
4. What is EDM? Explain
5. What is NC part programming? What sequence followed in computer part programming
6. Explain Robot anatomy?
7. What are need for FMS?
8. Explain CIM?

Long questions(10marks)

- 1.What is AJM ? Explain advantage ; disadvantages and application.
- 2.Explain type and need for automation?
- 3.What are the Different numerical control system? Describe NC;CNC;DNC system
4. Describe the type of NC coordinate systems?
- 6.What are the main components of robot?
- 7.Explain the component of FMS?
- 8.Difference between CAD&CAM?

Prepared by:-

Shrimanta Panigrahi

Mechanical Branch

Subject \rightarrow Power Plant Engineering
Semester \rightarrow 6th
Branch \rightarrow Mechanical Engg.

Question Bank

2 marks question \Rightarrow

- 1> What is central power plant? Give two examples.
- 2> What is captive power plant? Give two examples.
- 3> Give examples of some non-conventional sources of energy.
- 4> Differentiate between primary & secondary sources of energy.
- 5> Steam power plant operates on which cycle? Draw its P-V & T-S diagrams.
- 6> Draw P-V & T-S diagram for Carnot cycle.
- 7> Define work ratio.
- 8> Define SSC.
- 9> Write different processes of Rankine cycle.
- 10> Differentiate between boiler mountings & boiler accessories.
- 11> Define draught.
- 12> Clarify draught system.
- 13> What do you mean by natural draught?
- 14> Write the function of steam condenser.
- 15> Write uses of cooling tower in steam power plant.
- 16> What is compounding of steam turbine?
- 17> What is governing of steam turbine?

- 18> Write function of moderator with examples.
- 19> Write function of control rod with examples.
- 20> What is nuclear controlled chain reaction?

5 marks questions :->

- 1> Draw line diagram of steam power plant & briefly explain its working.
- 2> Explain reheat Rankine cycle.
- 3> Explain regenerative Rankine cycle.
- 4> Write 5 boiler mountings with its uses.
- 5> How ESP works?
- 6> Differentiate between forced draught & induced draught.
- 7> Explain about balanced draught.
- 8> How natural draught cooling tower works?
- 9> Explain surface condenser.
- 10> Explain pressure compounding.
- 11> Explain velocity compounding.
- 12> Differentiate between nuclear fusion & nuclear fission reaction.
- 13> Explain PWR.
- 14> Explain BWR.

10 marks questions: →

- 1> Explain layout of steam power plant with each circuits.
- 2> A simple Rankine cycle works between boiler pressure of 30 bar & initial condition of steam as dry saturated, calculate and condenser pressure of 0.2 bar. Find cycle efficiency, work ratio & SSC.
- 3> In a Rankine cycle, the steam at inlet to turbine is superheated at a pressure of 50 bar & 400°C & exhausted into the condenser at 0.2 bar. Determine
 - i) efficiency of the cycle
 - ii) pump work
 - iii) Turbine work
 - iv) Heat rejected into the condenser
 - v) SSC
- 4> Explain Reheat-Regenerative Rankine cycle.
- 5> Write short notes on
 - a) Air preheater
 - b) Economiser
 - c) Superheater
 - d) ESP
- 6> Write short notes on
 - a) cooling tower
 - b) Steam condenser
 - c) governing of steam turbine
- 7> Explain throttle governing with neat sketch.
- 8> Explain working of diesel power plant.
- 9> Explain working of hydroelectric power plant with neat sketch.