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Universiti Tun Hussein Onn Malaysia

**UNIVERSITI TUN HUSSEIN ONN MALAYSIA**

**FINAL EXAMINATION  
SEMESTER I  
SESSION 2017/2018**

COURSE NAME : ENGINEERING MANAGEMENT  
COURSE CODE : BEE30103  
PROGRAMME : BEV/BEJ  
EXAMINATION DATE : DECEMBER 2017 / JANUARY 2018  
DURATION : 2 HOURS 30 MINUTES  
INSTRUCTION :  
1) ANSWER ALL QUESTIONS  
2) ANSWER PART A IN THE OMR PAPER  
3) ANSWER PART B IN THE ANSWERING SHEET  
4) STUDENT ARE NOT ALLOWED TO BRING OUT THE QUESTION PAPER

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THIS QUESTION PAPER CONSISTS OF **FIFTEEN (15)** PAGES

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**PART A**

- Q1** The basic purpose of Human Resource Planning is to
- (a) identify the Human Resource requirement.
  - (b) identify the Human Resource availability.
  - (c) match the Human Resource requirement with the Human Resource availability.
  - (d) All of the above.
- (1 mark)
- Q2** The primary responsibility for the Human Resource planning lies with
- (e) Human Resource Manager.
  - (f) General Manager.
  - (g) Trade Union Leader.
  - (h) Line Manager.
- (1 mark)
- Q3** \_\_\_\_\_ is defined as the record of outcomes produced on a specific job familiar activity during a specific time period.
- (a) Performance
  - (b) Work function
  - (c) Evaluation
  - (d) Effort
- (1 mark)
- Q4** A plan or programmes to motivate individual or group performance can be categorised as
- (a) incentive scheme.
  - (b) promotion scheme.
  - (c) reward.
  - (d) appraisal.
- (1 mark)
- Q5** A/An \_\_\_\_\_ is a vertical move in a rank and responsibility
- (a) increment.
  - (b) appraisal.
  - (c) promotion.
  - (d) bonus.

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(1 mark)

- Q6** The recognition from the Manager may be shown in the form of
- (a) a pat on the back of employee.
  - (b) promotion.
  - (c) assignment of more interesting tasks.
  - (d) All of the above.
- (1 mark)
- Q7** Employee empowerment in general means
- (a) increased job autonomy for the superiors.
  - (b) increased job autonomy for the subordinates.
  - (c) decreased job autonomy for the subordinates.
  - (d) decreased job autonomy for the superiors.
- (1 mark)
- Q8** The committees which promote worker's participation in management are usually established only at the
- (a) corporate level.
  - (b) plant level.
  - (c) shop-floor level.
  - (d) All of the above.
- (1 mark)
- Q9** Which of the following activities is not required as part of the employee empowerment process?
- (a) Transfer of authority.
  - (b) Assignment of responsibility.
  - (c) Establishment of accountability.
  - (d) None of the above.
- (1 mark)
- Q10** The symptom of large inventory accumulation in anticipation of price rise in future will be indicated by
- (a) asset turnover ratio.
  - (b) working capital turnover ratio.
  - (c) inventory turnover ratio.
  - (d) accounts receivable turnover.
- (1 mark)

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**Q11** For a healthy business the current ratio lies between

- (a) 0 to 1.5.
- (b) 1.5 to 3.
- (c) 3 to 4.5.
- (d) 4.5 to 6.

(1 mark)

**Q12** An example of fixed asset is

- (a) live stock.
- (b) value stock.
- (c) income stock.
- (d) inventory stock.

(1 mark)

**Q13** The formula use to calculate current ratio is

- |  |   |
|--|---|
| (a) $\frac{\text{Current Assets}}{\text{Current liabilities}}$ | (c) $\frac{\text{Inventory}}{\text{Current liabilities}}$ |
| (b) $\frac{\text{Current liabilities}}{\text{Current assets}}$ | (d) $\frac{\text{Current liabilities}}{\text{Inventory}}$ |

(1 mark)

**Q14** Which of the following scenarios illustrates a moment that exceeds the customer's expectations?

- (a) An express mail service that guarantees overnight delivery.
- (b) A flight attendant that responds shortly after being called.
- (c) A hairdresser that cuts your hair at the right length.
- (d) All of the above.

(1 mark)

**Q15** Which of the following is **true** about ISO 14000 certification?

- (a) It is a prerequisite for ISO 9000 certification.
- (b) It indicates a higher level of adherence to standards than ISO 9000.
- (a) It is only sought by companies exporting their goods.
- (c) It deals with environmental management.

(1 mark)



**Q16** Total Quality Management emphasizes

- (a) the responsibility of the Quality Control staff to identify and solve all quality-related problems.
- (b) a commitment to quality that goes beyond internal company issues to suppliers and customers.
- (c) a system where strong managers are the only decision makers.
- (d) how resources are transformed into quality goods and services.

(1 mark)

**Q17** "Quality is defined by the customer" is

- (a) an unrealistic definition of quality.
- (b) a user-based definition of quality.
- (c) a manufacturing-based definition of quality.
- (d) the definition proposed by the American Society for Quality Control.

(1 mark)

**Q18** Which of the following is **not** one of the major categories of costs associated with quality?

- (a) Prevention costs.
- (b) External failures.
- (c) Appraisal costs.
- (d) None of the above, they are all major categories of costs associated with quality.

(1 mark)

**Q19** "Kaizen" is a Japanese term meaning

- (a) foolproof mechanism.
- (b) just-in-time (JIT).
- (c) continuous improvement.
- (d) setting standards.

(1 mark)

**Q20** Pareto charts are used to

- (a) identify inspection points in a process.
- (b) outline production schedules.
- (c) organize errors, problems or defects.
- (d) show an assembly sequence.

(1 mark)

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- Q21** ISO 9000 seeks standardization in terms of
- (a) procedures to manage quality.
  - (b) products.
  - (c) suppliers' specifications.
  - (d) production procedures.
- (1 mark)
- Q22** Which of following statement is **true** regarding control charts?
- (a) Values above the upper and lower control limits indicate points out of adjustment.
  - (b) Control charts are built so that new data can be quickly compared to past performance data.
  - (c) Control charts graphically present data.
  - (d) All of the above are true.
- (1 mark)
- Q23** Project success or failure is determined by the outcome of the project variables, including
- (a) resource.
  - (b) scope.
  - (c) time.
  - (d) All of the above.
- (1 mark)
- Q24** The following scenarios demonstrates the purpose of maintenance, **except**
- (a) resource Maximize performance of production equipment.
  - (b) increase sales number.
  - (c) minimize production loss.
  - (d) prevent breakdown or failure.
- (1 mark)
- Q25** In \_\_\_\_\_, weak spots of equipment are located before they occur or before they develop into major defects.
- (a) corrective maintenance.
  - (b) scheduled maintenance.
  - (c) preventive maintenance.
  - (d) predictive maintenance.
- (1 mark)

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- Q26** Which of the following is an element of the marketing?
- (a) Pricing.
  - (b) Staffing.
  - (c) Planning.
  - (d) Maintenance.
- (1 mark)
- Q27** Which of these is not one of the constraints of a project?
- (a) Scope.
  - (b) Resources.
  - (c) Team.
  - (d) Budget.
- (1 mark)
- Q28** Which of the following is not correct about initial phase of a project?
- (a) The cost associated at the beginning of the project is highest.
  - (b) Stakeholders have maximum influence during this phase.
  - (c) The highest uncertainty is at this stage of the project.
  - (d) All the above statements are correct.
- (1 mark)
- Q29** Which of the following is not an example of formal communication?
- (a) Contract.
  - (b) Email.
  - (c) Project status report.
  - (d) Status meeting.
- (1 mark)
- Q30** If the Earned Value is equal to Actual Cost, it means
- (a) project is on budget and on schedule.
  - (b) schedule Variance Index is 1.
  - (c) there is no schedule variance.
  - (d) there is no cost variance.
- (1 mark)
- Q31** Which of the following is the most important element of Project Management Plan that is useful in HR Planning process?
- (a) Risk Management activities.
  - (b) Quality Assurance activities.
  - (c) Activity Resource requirements.
  - (d) Budget Control activities.
- (1 mark)

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**Q32** Ahmad has joined as the Project Manager of a project. One of the project documents available to Ahmad lists down all the risks in a hierarchical fashion. What is this document called?

- (a) Risk Management Plan.
- (b) List of risks.
- (c) Monte Carlo diagram.
- (d) Risk Breakdown Structure.

(1 mark)

**Q33** During which stage of Risk planning are risks prioritized based on probability and impact?

- (a) Identify Risks.
- (b) Plan Risk responses.
- (c) Perform Qualitative risk analysis.
- (d) Perform Quantitative risk analysis.

(1 mark)

**Q34** Sam Consultancy is planning to buy ten desktops for \$1500 each from a leading computer store. Which type of contract will get signed in this case?

- (a) Purchase Order.
- (b) Cost plus Fee.
- (c) Fixed cost.
- (d) Time and Material.

(1 mark)

**Q35** The process of Control Procurements falls under which process group?

- (a) Planning.
- (b) Closing.
- (c) Monitoring and Control.
- (d) Executing.

(1 mark)

**Q36** The phases of a project life cycle are

- (a) starting, planning, control and closing.
- (b) concept, definition, development, handover and closure.
- (c) initiation, definition, planning, monitoring and operations.
- (d) concept, definition, implementation and operations.

(1 mark)

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- Q37** Which of the following types of Organizational Charts can be BEST used to track project costs?
- (a) Hierarchical-type Organizational Chart.
  - (b) Organizational Breakdown Structure.
  - (c) Resource Breakdown Structure.
  - (d) Responsibility Assignment Matrix.
- (1 mark)
- Q38** What is the definition of Engineering?
- (a) Solve technical problems.
  - (b) Design for customer needs.
  - (c) Efficient application of resources.
  - (d) All of the above.
- (1 mark)
- Q39** What is the definition of Management?
- (a) Getting things done through people.
  - (b) Directing the actions of a group.
  - (c) Process of achieving organizational goals.
  - (d) All of the above.
- (1 mark)
- Q40** Which elements are NOT in the managerial functions?
- (a) Implementing.
  - (b) Leading.
  - (c) Planning.
  - (d) Organizing.
- (1 mark)
- Q41** Manager levels are divided as
- (a) Top level.
  - (b) Middle level.
  - (c) First line.
  - (d) All of the above.
- (1 mark)
- Q42** Carry out the plans and objectives are specific type of jobs under
- (a) First-line managers.
  - (b) Lower management.
  - (c) Middle managers.
  - (d) Top management.
- (1 mark)

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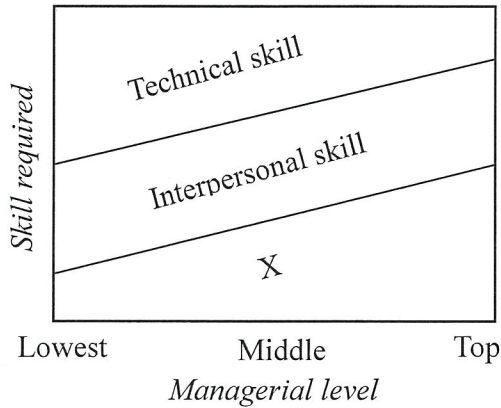
- Q43** First-line managers are consists of
- (a) Chairman, Executive Officer.
  - (b) Supervisor, Section Chief.
  - (c) President, Vice President.
  - (d) Chief Engineer, Division Head.
- (1 mark)
- Q44** Managerial skills required by managers are:
- I. Conceptual Skill.
  - II. Technical Skill.
  - III. Interpersonal Skill.
  - IV. Soft Skill.
- (a) I and II only.
  - (b) I, II and III only.
  - (c) II, III and IV only.
  - (d) All of the above.
- (1 mark)
- Q45** An operations manager is not likely to be involved in
- (a) the quality of products and services to satisfy customers' wants and needs.
  - (b) the identification of customers' wants and needs.
  - (c) work scheduling to meet the due dates promised to customers.
  - (d) forecasting sales.
- (1 mark)
- Q46** Managerial roles required by managers are:
- I. Leadership role.
  - II. Interpersonal role.
  - III. Decision role.
  - IV. Informational role.
- (a) I and II.
  - (b) I, II and III only.
  - (c) II, III and IV only.
  - (d) I, II, III and IV.
- (1 mark)
- Q47** Figurehead role, leader role and liaison role are managerial roles of
- (a) Informational roles.
  - (b) Interpersonal roles.
  - (c) Decisional roles.
  - (d) Leadership roles.
- (1 mark)

**Q48** Engineering manager has great capability towards

- (a) planning.
- (b) resolving the uncertainties.
- (c) evaluate risks and motivate technical personnel.
- (d) All the above.

(1 mark)

**Q49** Given the skills required versus managerial level. What is the skill of X?



- (a) Managing skill.
- (b) Conceptual skill.
- (c) Cooperation skill.
- (d) Theoretical skill.

(1 mark)

**Q50** The two general approaches to forecasting are

- (a) mathematical and statistical.
- (b) judgmental and qualitative.
- (c) historical and associative.
- (d) qualitative and quantitative.

(1 mark)

**Q51** When choosing a forecasting technique, a critical trade-off that must be considered is that between

- (a) cost and accuracy.
- (b) length and duration.
- (c) simplicity and complexity.
- (d) time series and associative.

(1 mark)

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- Q52** Which of the following uses three types of participants: decision makers, staff personnel, and respondents?
- (a) Executive opinions.
  - (b) Sales force composites.
  - (c) The Delphi method.
  - (d) Consumer surveys.
- (1 mark)
- Q53** One purpose of short-range forecasts is to determine
- (a) production planning.
  - (b) inventory budgets.
  - (c) research and development plans.
  - (d) job assignments.
- (1 mark)
- Q54** The most critical information to forecast is
- (a) sale levels.
  - (b) resource needs.
  - (c) training needs.
  - (d) production levels.
- (1 mark)
- Q55** Qualitative method in forecasting are
- I. judgment methods.
  - II. time-series methods.
  - III. counting methods.
  - IV. causal methods.
- (a) I and III only.
  - (b) I, II and III only.
  - (c) II, III and IV only.
  - (d) I, II, III and IV.
- (1 mark)
- Q56** Which of the following is not a characteristic of simple moving averages?
- (a) It smoothes random variations in the data.
  - (b) It has minimal data storage requirements.
  - (c) It weights each historical value equally.
  - (d) It is a quantitative method plan, direct, update, lead, and supervise.
- (1 mark)

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**Q57** A factory is producing two products ( $A$  and  $B$ ). RM12 profit per unit of product  $A$  and RM16 per unit of product  $B$ . How many  $a$  units of product  $A$  if the production level of  $b$  units of product  $B$  is 90 that maximizes the profit  $P$  of 1500?

- (a) 25 units.
- (b) 4 units.
- (c) 5 units.

(1 mark)

**Q58** Which is the following is **NOT** in the categories of decision making tools?

- (a) Control.
- (b) Certain.
- (c) Risk.
- (d) Uncertainty.

(1 mark)

**Q59** Decision making under certainty is

- (a) equally likely.
- (b) linear programming.
- (c) expected value.
- (d) simulation.

(1 mark)

**Q60** Which one is a kind of routine decisions?

- (a) Paying suppliers.
- (b) Unstructured situations.
- (c) New problem in a novel product.
- (d) Incomplete knowledge.

(1 mark)



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**PART B**

**Q61** (a) There are THREE (3) types of skills that required as a manager. State in your own words regarding the required skills. (6 marks)

(b) An engineering manager uniquely qualified for TWO (2) types of jobs, the management of technical functions in almost any enterprise, as well as management of broader functions in a high-technology enterprise. As a manager for a company in the industry of consumer electronic, explain the type of job in top management. (4 marks)

**Q62** You operate a small wooden toy company making two products: alphabet blocks and wooden trucks. Your profit is RM30 per box of blocks and RM10 greater profit per box of trucks. Producing a box of blocks requires one hour of woodworking and two hours of painting; producing a box of trucks takes three hours of woodworking, but only one hour of painting. You employ three woodworkers and two painters, each working 40 hours a week. How many boxes of blocks (X) and trucks (Y) should you make each week to maximize profit? Solve graphically as a linear program and confirm analytically. (10 marks)

**Q63** (a) 'Kaizen' is a philosophy that seeks to make never-ending improvements to the process of converting inputs into outputs.

Describe in detail about the process for continuous quality improvement that can identify the most effective solution before implementation.

(5 marks)

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(b) There are many TQM tools and techniques that can help organization to identify, analyse and assess data that relevant to their business.

Produce detail steps required in the construction of a Cause-and-Effect Diagram.

(5 marks)

**Q64** Using the information in **Table 1**, assuming that the project team will work in a standard working week (5 working days in 1 week) and that all tasks will start as soon as possible:

**Table 1**

Task	Description	Duration (Working Days)	Predecessor/s
A	Requirement Analysis	5	
B	Systems Design	15	A
C	Programming	25	B
D	Telecoms	15	B
E	Hardware Installation	30	B
F	Integration	10	C, D
G	System Testing	10	E, F
H	Training/Support	5	G
I	Handover and Go-Live	5	H

- (a) Determine the critical path of the project. (5 marks)
  
- (b) Calculate the planned duration of the project in weeks. (1 marks)
  
- (c) Identify any non-critical tasks and the float (free slack). (4 marks)

**-END OF QUESTIONS-**

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