16 DEC 2022

UNIVERSITY OF RUHUNA

THIRD EXAMINATION IN B.Sc GREEN TECHNOLOGY (PART II) December 2022

ID 3204: GREEN PRODUCTIVITY

M.C.Q. Type

TIME: 30 Minutes	
Index Number	

Answer all questions.

Mark your answers by placing " $\sqrt{}$ " against the selected alternative among the four alternatives provided in each question which you consider most appropriate.

Only one answer should be marked in each question.

Only non-programmable calculators are permitted.

Mobile phones are not permitted.

- 1. Current ISO management systems guided with
 - a. Management policy
 - b. PDCA cycle
 - c. SWOT analysis
 - d. None of the above
- 2. Organizational energy management system starts with
 - a. Action plan
 - b. Energy audit
 - c. Energy cost evaluation
 - d. Energy policy
- 3. Which organization/s defined the millennium development goals (MDGs) and sustainable development goals (SDGs)?
 - a. Asian Productivity Organization (APO)
 - b. United Nations Organization (UNO)
 - c. Collectively by APO and UNO
 - d. World Bank
- 4. Number of MDGs and SDGs respectively are;
 - a. 9 and 17
 - b. 17 and 8
 - c. 8 and 17
 - d. None of the above is correct
- 5. Select the correct answer considering the following statements about current global environmental pollution;
 - A. It is not a natural phenomenon,
 - B. Higher the natural resource consumption, pollution will be higher
 - C. Major reasons are anthropogenic
 - a. Only A is correct
 - b. Only B is correct
 - c. Only C is correct
 - d. All above are correct

- 6. Basic consideration/s in "Green Purchasing" is / are;
 - a. Consideration of life cycle impacts of products
 - Availability of environmental information of items to evaluate products, manufacturers and distributors
 - c. Both above a and b,
 - d. None of the above
- 7. Consider following jobs;
 - A. Automobile Traffic controller
 - B. Garbage collector
 - C. Petroleum fuel dispensing machine operator What is / are the green job/s out of above three jobs?
 - a. A and B only,
 - b. All above are green jobs,
 - c. None of the above is a green job
 - d. Only C is a green job
- 8. What is true about sustainable development?
 - a. It is only the harmony between development and environment
 - b. Applies to all living communities,
 - c. It is a theoretical approach only,
 - d. None of the above is correct.
- 9. What is correct about Minamata disease?
 - a. Occurs due to industrial pollution,
 - b. Mercury pollution is the main course,
 - c. A good example for water pollution and health impacts
 - d. All above are correct
- 10. Green Productivity (GP) methodology consist of;
 - a. 12 steps
 - b. 6 steps
 - c. 12 tasks
 - d. 6 steps and 13 tasks
- 11. What is the best wastewater management approach combination for a food industry?
 - a. Aerobic treatment and composting
 - b. Chemical precipitation and land filling of sludge
 - c. Anaerobic treatment, aerobic treatment, composting and reed- bed polishing
 - d. None of the above combination is correct
- 12. What is / are the best GP index / indices for a hotel?
 - a. Monthly electricity bill value
 - b. Monthly water bill value
 - c. Both above a and b
 - d. None of the above

- 13. Green productivity concept is introduced by;
 - a. Collectively by United Nations Industrial Development Organization (UNIDO) and United Nations Environmental Programme (UNEP)
 - b. Collectively by United Nations Industrial Development Organization (UNIDO), United Nations Environmental Programme (UNEP) and Asian Productivity Organization (APO)
 - c. Asian Productivity Organization (APO)
 - d. United Nations Environmental Programme (UNEP)
- 14. At the Planning stage of a GP programme, "End of Pipe Treatment" strategies;
 - a. To be given the least priority in process planning,
 - b. Not to be considered as those never reduce environmental impacts
 - c. Applicable only if wastewater treatment is applicable,
 - d. To be considered mainly because of government regulations.
- 15. Organizational energy baseline is;
 - a. An important value in energy management process,
 - b. Quantitative reference providing a basis for comparison of energy performance
 - c. Only applicable to manufacturing organizations,
 - d. Both above a and b are correct.
- 16. "National per capita water consumption is a GP index". Select correct statement;
 - a. Only applicable to developed countries,
 - b. Only applicable to developing countries,
 - c. If organization consumes rainwater, not consider as a GP index.
 - d. Applicable to both developed and developing countries,
- 17. Implementation of ISO 50001 energy management system standards;
 - a. Will have only marketing advantages,
 - b. Mandatory requirement for all Sri Lankan industries,
 - c. Provides guidelines for organizational energy management system implementation,
 - d. Suitable only to export oriented organizations.
- 18. Organizational environmental aspects;
 - a. Useful only if ISO 14001 certification obtained,
 - b. Foundation of an organizations environmental management system
 - c. Do not have any direct relationship to environmental impacts,
 - d. Important if they are connected with climate change impacts.
- 19. Organizational energy management includes;
 - a. Process step energy measurements and consumption analysis,
 - b. Optimizing the organizational energy use,
 - c. Appointment of an energy management team
 - d. All above

- 20. Organizational energy accounting includes;
 - a. Calculation of monthly energy cost for total organization and other sub operations,
 - b. Calculation of energy efficiency, efficacy, specific energy consumption and energy intensity
 - c. Calculation of monthly energy cost, energy efficiency, efficacy, specific energy consumption and energy intensity
 - d. Only calculation of monthly energy cost, energy efficiency and energy intensity
- 21. Method / s of training and development include /s;
 - a. Off the job training,
 - b. Operation manuals and work instructions,
 - c. Both above a and b are correct,
 - d. None of the above is correct.
- 22. "Energy conservation is not necessary if any organization is totally depends on renewable energy sources" This statement is;
 - a. Totally correct,
 - b. Totally incorrect,
 - c. Correct if the organization do not use biomass,
 - d. Correct if the organization use only sustainable biomass sources.
- 23. What is correct about the "Japanese 5S system"?;
 - a. This doesn't apply to GP,
 - b. Suitable to Japanese manufacturing industries only,
 - c. An example for good housekeeping systems,
 - d. All above are correct.
- 24. What is correct about the Energy performance indicator?
 - a. It's a quantitative index of energy performance defined by the organizational energy auditor,
 - b. It's a quantitative index of energy performance as defined by the government,
 - c. It's a quantitative index of energy performance as defined by the organization,
 - d. All above are correct
- What is correct about "Concentration diagram";
 - a. Is a useful GP tool,
 - b. Is a useful GP technique,
 - c. Provides qualitative and quantitative information about organizational waste sources,
 - d. Both above a and C are correct.