Code A

Total Printed Pages : 23

SKILL ASSISTANT PROFESSOR

MECHANICAL/MACHATRONICS ENGG.

100113

OMR Sr. No. _____ Booklet Sr. No.

Time : 90 Minutes Total Questions : 100 Max. Marks : 100

Roll No. (in Figure) _____ (in Words) _____

(Signature of the Candidate) (Signature of the Invigilator)

IMPORTANT

DO NOT OPEN THE BOOKLET UNLESS YOU ARE ASKED TO DO SO

FIRST READ FOLLOWING INSTRUCTIONS CAREFULLY.

1. The candidate will fill up required particulars including his/her roll no. and signature on the OMR sheet with ball point pen (Black/Blue) in the appropriate boxes.
2. Ten minutes before the commencement of the test, question booklet and OMR sheet will be distributed to the candidates.
3. Immediately on opening the question-booklet, the candidate should check the booklet & OMR sheet and ensure himself/herself that it contains 100 multiple choice questions (Sr. No. 1 to 100). Discrepancy, if any, should be reported by the candidate to the invigilator within 5 (five) minutes of the opening of the question booklet and should ask the invigilator for replacement.
4. **For each question, four suggested answers A, B, C, D are given. The candidate is to choose only one answer which he/she considers the correct or the best one. If candidate darkens more than one circle or cutting/overwriting/erasing (by eraser, white fluid or any other chemicals) then such answer(s) shall not be evaluated.**
5. The answers should be marked by darkening appropriate circle provided in front of the concerned serial number on the OMR Sheet only with **black/blue pen. Use of pencil is not allowed.** For instance, while answering the Question No.26 of the question booklet, the correct answer **A** or **B** or **C** or **D** at serial No. 26 of OMR sheet should only be darkened.
6. The candidate should be careful in handling the question-paper and in darkening the answers on the OMR Sheet. **The second question booklet/OMR sheet will not be supplied in case there is no discrepancy in the booklet/OMR sheet already supplied.**
7. Bringing of incriminating materials/electronic gadgets/devices including cell phone in the premises of the examination centre is strictly prohibited. Possessing of incriminating materials electronic gadgets/ devices and any other aiding material in the examination room will be a serious offence and it will attract the cancellation of the candidature.
8. The candidate will not be permitted to leave the examination hall before the conclusion of the test. The candidate should make sure that question-booklet including OMR sheet is handed over to the invigilator before leaving the examination hall at the end of the test, failing which, a case of use of unfair-means/ misbehavior will be registered against him/her, in addition to lodging of an FIR with the police. Further, OMR sheet of such a candidate will not be evaluated.
9. The candidate can do rough-work on the back of the title cover of question booklet. Rough-work on OMR sheet is **prohibited**.
10. ***Mobile Phones are not at all allowed inside the Examination Hall.***
11. It is for the information that entire examination shall be recorded by video camera and impersonation shall lead to disqualification and registration of Police Case.
12. Programmable Calculator is not allowed.

SEAL

1. The height of water column corresponding to a pressure equivalent to 80 cm of mercury column is :

(A) 784.8 (B) 1088 cm

(C) 10673 cm (D) None of these

2. A stream line and an equipotential line in a flow field :

(A) Are parallel to each other

(B) Intersect at an acute angle

(C) Are perpendicular to each other

(D) Are identical

3. Two pipes of uniform section but different diameters carry water at the same volumetric flow rate. Water properties are the same in two pipes. The Reynolds number, based on the pipe diameter :

(A) Is the same in both pipes

(B) Large in narrow pipe

(C) Small in narrow pipe

(D) Depends on pipe material

4. If x is the distance measured from the leading edge of a flat plate, then laminar boundary layer thickness varies as :

(A) $1/x$ (B) $x^{0.8}$

(C) x^2 (D) $x^{0.5}$

5. Match List-I and List-II and select the correct answer using the codes given below in the lists :

List-I	List-II
(a) Grashof Number	(1) Mass diffusion
(b) Schmid Number	(2) Transient heat conduction
(c) Weber Number	(3) Free convection
(d) Fourier Number	(4) Forced convection
	(5) Surface tension

Codes :

(A) a-4, b-5, c-2, d-1 (B) a-5, b-1, c-3, d-2

(C) a-3, b-4, c-5, d-1 (D) a-3, b-1, c-5, d-2

6. With an increase in the thickness of insulation around a circular pipe, heat loss to surrounding due to :

(A) Convection increases, while that due to conduction decreases.

(B) Convection decreases, while that due to conduction increases.

(C) Convection and conduction decreases.

(D) Convection and conduction increases.

7. A cylinder contains 5 m^3 of an ideal gas at a pressure of 1 bar. This gas is compressed in a reversible isothermal process till its pressure increases to 5 bar. The work in kJ required for this process is :

(A) 804.7 (B) 953.2

(C) 981.7 (D) 1012.2

8. What is the value of view factor for two inclined flat plates having common edge of equal width, and with an angle of 20° ?

(A) 0.83
(B) 1.17
(C) 0.66
(D) 1.34

9. In a certain heat exchanger, both the fluids have identical mass flow rate- specific heat product. The hot fluid enters at 76°C and leaves at 48°C, and the cold fluid entering at 28°C leave at 56°C. The effectiveness of heat exchanger is :

(A) 0.16
(B) 0.58
(C) 0.72
(D) Incomplete data

10. When an ideal gas with constant specific heats is throttled adiabatically, with negligible changes in kinetic and potential energies, the change in enthalpy (Δh), temperature (ΔT) and entropy (ΔS) will be :

(A) $\Delta h = 0, \Delta T = 0$
(B) $\Delta h > 0, \Delta S = 0$
(C) $\Delta h = 0, \Delta S > 0$
(D) (A) and (C)

11. One kilogram of water at room temperature is brought into contact with a high temperature thermal reservoir. The entropy change of the universe is :

(A) Equal to entropy change of reservoir
(B) Equal to entropy change of water
(C) Equal to zero
(D) Always positive

12. A heat engine having an efficiency of 70% is used to drive a refrigerator having coefficient of performance of 5. The energy absorbed from low temperature reservoir by the refrigerator for each kJ of energy absorbed from high temperature source by the engine is :

(A) 0.14 kJ
(B) 0.71 kJ
(C) 3.5 kJ
(D) 7.1 kJ

13. The speed ratio of Pelton turbine for its efficient operation lies in the range :

(A) 0.43 – 0.47 (B) 0.8 – 0.9

(C) 0.96 – 0.98 (D) 1.2 – 1.4

14. Dew point temperature is the temperature at which condensation begins when the air is cooled at constant :

(A) Volume (B) Entropy

(C) Pressure (D) Enthalpy

15. The inlet valve of a typical IC Engine remains open for :

(A) 160° (B) 180°

(C) 230° (D) 280°

16. Match List-I and List-II and select the correct answer using the codes given below in the lists :

List-I	List-II
(a) Gas Turbine	(1) Constant volume heat addition and constant volume heat rejection
(b) Petrol Engine	(2) Constant pressure heat addition and constant volume heat rejection
(c) Stirling Engine	(3) Constant pressure heat addition and constant pressure heat rejection
(d) Diesel Engine	(4) Heat addition at constant volume followed by heat addition at constant temperature. Heat rejection at constant volume followed by heat rejection at constant temperature

Codes :

(A) a-3, b-4, c-1, d-2 (B) a-2, b-3, c-1, d-4

(C) a-2, b-1, c-4, d-3 (D) a-3, b-1, c-4, d-2

17. Match List-I and List-II and select the correct answer using the codes given below in the lists :

List-I (Application)	List-II (Type of pattern)
(a) Undercut in components	1 Cope and drag
(b) Large Bells	2 Follow board
(c) Mass production of casting by machine mould	3 Gated
(d) Components with irregular parting lines	4 Loose piece
	5 Sweep

Codes :

(A) a-5, b-3, c-2, d-4 (B) a-5, b-3, c-1, d-4

(C) a-2, b-1, c-4, d-5 (D) a-3, b-1, c-5, d-2

18. High speed electron beam welding is focused on the weld spot using :

(A) Vacuum lens (B) Inert gas lens

(C) Magnetic lens (D) Optical lens

19. Diamond cutting tools are not recommended for machining of ferrous metals due to :

(A) High tool hardness

(B) Chemical affinity of tool material with iron

(C) Poor tool toughness

(D) High thermal conductivity of work material

20. Abrasive material used in grinding wheel selected for grinding ferrous alloys is :

(A) SiC (B) Diamond

(C) Al_2O_3 (D) Boron carbide

21. A test specimen is stressed slightly beyond the yield point and then unloaded. Its yield strength :

(A) Decreases
(B) Increases
(C) Remains same
(D) Become equal to UTS

22. In blanking operation, the best way to improve the smoothness and squarness of the edges is to :

(A) Have reduced gap between punch and die
(B) Decrease the speed of blanking
(C) Increase the ductility of the sheet
(D) Provide shear on the punch

23. Which one of the instruments is a comparator ?

(A) Tool makers Microscope
(B) Go/NOGO gage
(C) Optical interferometer
(D) Dial Gage

24. A hole of diameter $25.00^{+0.01}$ mm is to be inspected by using GO/NO GO gages. The size of the GO plug gage should be :

(A) 25.01 mm
(B) 25.02 mm
(C) 25.00 mm
(D) 24.99 mm

25. Fixtures are used in batch production for :

(A) Clamping the job
(B) Supporting and clamping the job
(C) Supporting, clamping the job and guiding the tool
(D) Supporting, locating and clamping the job

26. Interpolator in a CNC machine controls :

(A) Spindle speed (B) Feed rate

(C) Coolant rate (D) Tool change

27. Production flow analysis is a method of identifying part families that uses data from :

(A) Engineering Drawing (B) Production schedule

(C) Bill of materials (D) Both (B) and (C)

28. Customers arrive at a ticket counter at a rate of 50 per hour and tickets are issued in the order of their arrival. The average time taken for issuing a ticket is 1 minute. Assuming that customer arrivals from a Poisson process and service times are exponentially distributed, the average waiting time in queue in minutes is :

(A) 3 (B) 4

(C) 5 (D) 6

29. Frederick W. Taylor introduced a system of working known as :

(A) Line organisation

(B) Functional organisation

(C) Line and Staff organisation

(D) Effective organisation

30. Material handling and plant location is analysed :

(A) Gantt Chart (B) Bin Chart

(C) Emerson Chart (D) Travel Chart

31. The ratio of tension on the tight side to that on the slack side in a flat belt drive is :

(A) Proportional to the product of coefficient of friction and lap angle.

(B) An exponential function of the product of coefficient of friction and lap angle.

(C) Proportional to lap angle.

(D) Proportional to the product of coefficient of friction.

32. In compression test, the fracture in cast iron specimen would occur along :

(A) The axis of load

(B) An oblique plane

(C) Perpendicular to the axis of load

(D) None of the above

33. A Boiler shell 200 cm diameter and plate thickness 1.5 cm is subjected to internal pressure 1.5 MN/m^2, then the hoop stress will be :

(A) 30 MN/m^2 (B) 50 MN/m^2

(C) 100 MN/m^2 (D) 200 MN/m^2

34. Cross head and guides form a :

(A) Lower pair (B) Higher pair

(C) Rolling pair (D) Sliding pair

35. For fluctuating loads, well suited bearing is :

(A) Needle roller bearing (B) Ball bearing

(C) Thrust bearing (D) Sleeve bearing

36. Whitworth quick return mechanism is obtained by inversion of :

(A) Slider crank mechanism (B) Kinematic chain

(C) Roller cam mechanism (D) None of these

37. Centrifugal type governor is preferred to the inertia type governor because :

(A) Former has low initial cost

(B) Former consumes less power

(C) Later results in difficulties of balancing inertia forces

(D) None of the above

38. Maximum deflection in a beam supported freely at both ends, due to a central load P at middle is (l : length between support, E : modulus of elasticity) :

(A) $\frac{Pl^3}{48EI}$ (B) $\frac{Pl^3}{32EI}$

(C) $\frac{Pl^3}{96EI}$ (D) $\frac{Pl^3}{64EI}$

39. Stress concentration in cyclic loading is more serious in :

(A) Ductile material (B) Brittle material

(C) Equal in A and B (D) Cannot say

40. Resistance to fatigue of a material is measured by :

(A) Young's modulus (B) Coefficient of elasticity

(C) Ultimate tensile strength (D) Endurance limit

41. Addition of lead and bismuth to aluminium results in :

(A) Improvement of casting characteristics

(B) Improvement of corrosion resistance

(C) Improving machinability

(D) None of the above

42. Tooth interference in an external involute spur gear pair can be reduced by :

(A) Decreasing centre distance between gears

(B) Decreasing module

(C) Decreasing pressure angle

(D) Increasing number of teeth

43. Axial operation claw clutches having self-locking tooth profile :

(A) Can be disengaged at any speed

(B) Can be disengaged only when unloaded

(C) Can be engaged only when unloaded

(D) Can work with load only

44. There are four samples P, Q, R and S with natural frequencies 64, 96, 128 and 256 Hz respectively. They are mounted on test set up for conducting vibration experiments. If a loud pure note of frequency 144 Hz is produced by some instrument, which of the samples will show the most perceptible induced vibration ?

(A) P (B) Q

(C) R (D) S

45. When 1 per cent carbon steel is slowly cooled from molten state to 740°C the resulting structure will contain :

(A) Austenite and Ferrite (B) Austenite and Cementite

(C) Ferrite and Cementite (D) Pearlite and Cementite

46. One of the eigen vectors of the matrix $A\begin{bmatrix} 2 & 2 \\ 1 & 3 \end{bmatrix}$ is :

(A) $\begin{bmatrix} 2 \\ -1 \end{bmatrix}$ (B) $\begin{bmatrix} 2 \\ 1 \end{bmatrix}$

(C) $\begin{bmatrix} 4 \\ 1 \end{bmatrix}$ (D) $\begin{bmatrix} 1 \\ -1 \end{bmatrix}$

47. The system of algebraic equations given below has :

$$x + 2y + z = 4$$

$$2x + y + 2z = 5$$

$$x - y + z = 1$$

(A) A unique solution of $x = 1$, $y = 1$ and $z = 1$

(B) Infinite number of solutions

(C) Only the two solutions of ($x = 1$, $y = 1$, $z = 1$) and ($x = 2$, $y = 1$, $z = 0$)

(D) No feasible solution

48. Match the correct pairs :

	Column-I		Column-II
P.	Gauss-Seidel method	1.	Interpolation
Q.	Forward Newton-Gauss method	2.	Non-linear differential equations
R.	Runge-Kutta method	3.	Numerical integration
S.	Trapezoidal Rule	4.	Linear algebraic equations

Codes :

(A) P-1, Q-4, R-3, S-2 (B) P-1, Q-4, R-2, S-3

(C) P-1. Q-3, R-2, S-4 (D) P-4, Q-1, R-2, S-3

49. The integral $\int_1^3 \frac{1}{x} dx$, when evaluated by using Simpson's 1/3 rule on two equal sub-intervals each of length 1, equals :

(A) 1.000 (B) 1.098

(C) 1.111 (D) 1.120

50. A box contains 20 defective items and 80 non-defective items. If two items are selected at random without replacement, what will be the probability that both items are defective ?

(A) 1/5 (B) 19/495

(C) 20/99 (D) 1/25

51. When a test actually measures what it purports to measure, this characteristic of test is known as :

(A) Correlation
(B) Validity
(C) Reliability
(D) Variance

52. The Programmed learning is *not* used for :

(A) Teaching
(B) Networking
(C) Integrated Learning
(D) Evaluating

53. Education Technology has truly paved the way for learner to become :

(A) Aware, appreciative and equipped
(B) Honest, wise and aware
(C) Effective, honest and wise
(D) Creative, appreciative and wise.

54. In the context of an educational institution, the curriculum document of an educational programme is a significant :

(A) Input
(B) Process
(C) Output
(D) Feedback

55. Essential training skills require the skills of (i) design training programme, (ii) design exercises, (iii) conduct training needs analysis, (iv) evaluate the training programme and (v) design worksheets. In order of priority and smooth implementation, what should be work flow ?

(A) i, ii, iii, iv, v
(B) iii, i, ii, v, iv
(C) iii, ii, v, i, iv
(D) i, v, ii, iii, iv

56. The core objective of learning education technology is to get :

(A) Oriented
(B) Facilitated
(C) Integrated
(D) Evaluated

57. Learning objectives are statements that define the expected goal of a curriculum, course, lesson or activity in terms of demonstrable skills or knowledge that will be acquired by a student as a result of instruction. What is most crucial in writing a learning objective ?

(A) Performance criterion
(B) Action verb
(C) Intent of evaluation
(D) Teaching method

58. Measures are arranged in some meaningful manner :

(A) Discrete data
(B) Grouped data
(C) Ungrouped data
(D) Variable data

59. In order to implement a skill based curriculum effectively, one of the following component needs to be considered more comprehensively :

(A) Content outline
(B) Methods of implementation
(C) Learning outcomes
(D) End term assessment

60. Education technology is integrated in the teaching-learning process by :

(A) Using variety of teaching methods
(B) Designing new experimentations
(C) Reinforcement of learning
(D) Introducing, reinforcing and extending learning experiences.

61. Cognitive Learning Theory (CLT) implies that the different processes concerning learning can be explained by analyzing the mental processes first. It posits that with effective cognitive processes, learning is easier and new information can be stored in the memory for a long time. To implemented CLT effectively one has to consider predominantly :

(A) Behavioural factors of the learners
(B) Behavioural as well as personal factors of the learners
(C) Behavioural and environmental factors
(D) Behavioural, personal and environmental factors

62. These are first hand experience, which serve as foundation of our learning :

(A) Direct purposeful experience

(B) Direct personal engagement

(C) Direct educational engagement

(D) Direct educational experience

63. Operant conditioning can be described as a process that attempts to modify behavior through the use of positive and negative reinforcement. Through operant conditioning, an individual makes an association between a particular behavior and a consequence. Which of the following is a non-example of operant conditioning ?

(A) Parents rewarding the student's excellent grades with some prize.

(B) Students copy a diagram drawn on the board.

(C) A school teacher awards points to those students who are the calmest and well-behaved.

(D) Students help each other to develop a project detail.

64. A research design is :

(A) A way of conducting research not grounded in theory

(B) The choice between using quantitative or qualitative method

(C) The style in which you present your research, e.g.- graph

(D) A framework for every stage of the collection and analysis of data

65. In an experimental design, the dependent variable is :

(A) The one that is not manipulated and in which any changes are observed

(B) The one that is manipulated in order to observe any effects on the other

(C) A measure of the extent to which personal values affect research

(D) An ambiguous concept whose meaning depends on how it is defined

66. Involves the collection, organisation and analysis of numerical data :

(A) Assessment
(B) Measurement
(C) Test
(D) Statistics

67. When planning a lesson, a teacher can best help ensure that instruction will be effective and appropriate for students from a wide range of socio-economic backgrounds by asking himself or herself which of the following questions ?

(A) Will the lesson include opportunities for interaction among students from different backgrounds ?

(B) Will students have opportunities to ask questions and seek clarification at various points in the lesson ?

(C) Will the lesson be structured in a way that allows students to spend time working with self-selected peers to help process new learning ?

(D) Will the examples used to illustrate and explore lesson content be familiar and relevant to students with varied life experiences ?

68. Industrial training can be effectively assessed by :

(A) Rating scale
(B) Observation sheet
(C) Check list
(D) Performance diary

69. Studies in cybernetics provide a means for examining the design and function of any system, including social systems such as business management, training and organizational learning, including for the purpose of making them more efficient and effective. One of the following is not an example of cybernetics :

(A) Game Theory
(B) Systems Theory
(C) Trance Theory
(D) Perceptual Control Theory

70. A teacher regularly gives students brief quizzes of three to five questions covering material taught in the current or preceding lesson. Which of the following is likely to be the primary benefit of this practice ?

(A) helping improve instruction through ongoing feedback on teaching effectiveness

(B) minimizing the amount of re-teaching required for students to master curricular content

(C) ensuring that the teacher has adequate performance data to assign students a fair grade for the class

(D) enhancing students' engagement in the learning process and recognition of key learning goals

71. Consider the deviation each score is away from the mean of the distribution :

(A) Standard deviation (B) Mean deviation

(C) Median deviation (D) Maximum deviation

72. Prof. Ramesh and Prof. Suresh collected data on the same set of students using the same test and find their data is almost exactly the same. This indicates test has :

(A) Test-retest reliability

(B) Inter-rater reliability

(C) Alternate forms reliability

(D) Split half-reliability

73. A Vocational Institute teacher has been planning to have the students in a class carry out individual research projects in social setting in which each student would investigate and report on a self-selected topic. The teacher decides instead to have the students conduct and report on their research in groups. The group approach is likely to be particularly effective for the students because it :

(A) increases the students' overall learning efficiency and sense of contribution during the project.

(B) enables students who usually achieve at varied levels to perform at a level similar to that of high-achieving peers in the class.

(C) uses the students' interest in social interactions to enhance motivation and increase engagement in the learning process.

(D) prompts the students to use a greater variety of methods and approaches to pursue broader, more complex research topics.

74. While analysing the attitudinal performance of the learner you find that the learner has adapted values and has become more organised, can compare and contrast values and choices, begin to order and prioritise values and choose to commit to certain behaviour. In the taxonomy of affective domain, at what level you will place him ?

(A) Receiving (B) Responding

(C) Valuing (D) Organising

75. Teachers of science, entrepreneurship, and humanities are planning an integrated unit on the Industrial Revolution. This instructional approach can be expected to enhance student learning primarily by :

(A) facilitating students' accelerated achievement of content standards in multiple subject areas.

(B) presenting students with tasks that are responsive to their individual learning preferences.

(C) promoting students' ability to apply a wide range of academic problem-solving strategies.

(D) connecting ideas for students in ways that make content more authentic and meaningful.

76. Outcomes attained after gaining skills and knowledge of a course is termed as :

(A) Course Outcomes
(B) Programme Outcomes
(C) Session Outcomes
(D) Programme Specific Outcomes

77. Constructivist learning environments require students to utilize their prior knowledge and experiences to formulate new, related, and/or adaptive concepts in learning. Under this framework the role of the teacher becomes that of a facilitator, providing guidance so that learners can construct their own knowledge. To construct an effective learning environment, you will :

(A) write the objectives explicitly
(B) develop structured learning exercises
(C) design evaluation exercises
(D) draw the content outline explicitly

78. It is scientific and organised teaching-learning process and or a product :

(A) Instructional Technology
(B) Educational Technology
(C) Educational Media
(D) Audio, Video & Media Technology

79. The standard error is a statistical measure of :

(A) The normal distribution of scores around the sample mean
(B) The extent to which a sample mean is likely to differ from the population mean
(C) The clustering of scores at each end of a survey scale
(D) The degree to which a sample has been accurately stratified

80. A self-instructional strategy promotes :

(A) Group dynamics
(B) Focussed group learning
(C) Learning to learn attitude
(D) Problem solving attitude

81. One of the following is the best example of a teacher applying a constructivist approach to student learning :

(A) A math teacher has students use hands-on materials and real-world problems to acquire new concepts and practice skills.

(B) A language arts teacher provides students with a concrete reward each time they turn in a written assignment that is free of errors.

(C) A social studies teacher uses visual aids and a logical progression of ideas when presenting lectures about new or unfamiliar topics.

(D) A science teacher models the correct procedures for performing complex experiments before having students perform the experiments.

82. Trait of characteristic that can assume more than one value :

(A) Discrete data
(B) Unground data
(C) Population
(D) Variable data

83. Mr. X learnt car driving from a reputed training school and got a certificate of perfect driver in 15 days of learning and examination. Mr. X is able to drive his car very confidently on highways and empty roads but he has little hesitation in driving on busy streets. On the taxonomy of psychomotor domain, at what level his driving skills can be safely placed ?

(A) Imitation
(B) Precision
(C) Naturalisation
(D) Manipulation

84. How will you apply principle of distributed practise while training students to develop specific set of motor skills ?

(A) Providing them frequent short periods of intense practise.

(B) Giving them mass practise assignments.

(C) Developing ability to perform one motor skill effectively independent of their ability to perform over other motor skills.

(D) Motivating the students to learn independently and confidently.

85. Process of measuring, evaluating, identifying and prescribing using result to identify performance and problems, and then prescribing a solution :

(A) Assessment
(B) Evaluation
(C) Test
(D) Measurement

86. Motor learning is a change, resulting from practice. It often involves improving the accuracy of movements both simple and complex as one's environment changes. Motor learning is a relatively permanent skill as the capability to respond appropriately is acquired and retained. The stages of motor learning necessarily involve :

(A) Cognitive phase, Motor phase and Affective phase
(B) Cognitive phase, Associative phase and Autonomous phase
(C) Motor phase, Associative phase and Affective phase
(D) Cognitive phase, Associative phase and Affective phase

87. Direct Instructional Model gives priority to :

(A) Critical Thinking
(B) Global Learning
(C) Analytical Thinking
(D) Mastery Learning

88. Domains of performance are essential to be recognised to identify adequate knowledge, skills and attitude to be developed among students. These knowledge, skills and attitudes are integrated in the curriculum document systematically. How the domains of performance can be assessed ?

(A) Identification of learning elements
(B) Conducting job analysis survey
(C) Identification of performance indicators
(D) Conducting performance need survey

89. A well-made outcome based curriculum document essentially comprises of :

(A) Syllabus, content and study references

(B) Content outline, instructional methods and experimentations

(C) Instructional strategies, learning experiences and performance assessment

(D) Content outline, instructional strategies and study references.

90. Learning is meaningful if it is organized in such a way as to emphasize and call for understanding, insight, initiative, and cooperation. When the learner is capable of gaining insight or understanding into the learning situation, then and only then will learning take place. Meaningful learning is reflected in learner's behaviour by :

(A) Comprehending and memorisation

(B) Organisation of learning elements

(C) Purposeful engagement and performance

(D) Acquisition of desired knowledge.

91. A type of diagram that is used to cluster complex apparently unrelated data into natural and meaningful groups :

(A) Dogbone diagram (B) Affinity diagram

(C) Fishbone diagram (D) Natural Diagram

92. Positive reinforcement provides better learning opportunities for the learners. This can be achieved by :

(A) Providing stimulus and feedback

(B) Keeping strict observation

(C) Evaluating reports on performance

(D) Observing and punishing for non-performance

93. Part of the subgroup of the given population in which every member has an equal chance of being included in the sample :

(A) Continuous data
(B) Ungrouped data
(C) Grouped data
(D) Random sample

94. CALL stands for :

(A) Computer Ability in Language Learning
(B) Computer Aided Language Learning
(C) Computer Aided Linguistic Learner
(D) Computer Aided Lab Lesson

95. An Industrial Management Teacher is introducing a long-term project with several components. Students will be required to conduct research and interviews on a self-selected topic, write a report, and make an oral presentation. At this point in instruction, the teacher can best promote all students' ability to achieve the goals of the project by using which of the following strategies ?

(A) Assigning students partners to provide support throughout the project and scheduling regular times for the partners to meet
(B) Reassuring students that they possess all of the skills and abilities needed to complete the project tasks
(C) Organizing project tasks in a step-by-step sequence and providing students with directions and reminders for completing each step
(D) Explaining to students how the objectives of the project fit into a larger instructional plan.

96. Scaled replica of real objects are called :

(A) Realia
(B) Mock-up
(C) Model
(D) Replica

97. Students are most likely to be intrinsically motivated to learn and master subject matter when they :

(A) know that they will be tested on their understanding of the content in the near future.

(B) believe that the work they are doing is interesting and relates to their own lives.

(C) perceive that their performance compares favorably with that of peers engaged in the same tasks.

(D) anticipate that they will receive positive reinforcement for achieving instructional objectives.

98. In which of the following situations is a teacher most clearly using reflection and self-assessment to improve professional practice ?

(A) A teacher reviews videotapes of his or her instruction with a more experienced teacher to identify teaching strengths and challenges.

(B) A teacher asks another teacher to review his or her lesson plans prior to instruction and provide feedback on planned activities and materials.

(C) A teacher engages in co-teaching with a more experienced teacher when introducing particularly challenging content to students.

(D) A teacher creates a comprehensive description of activities used during each grading period to submit to the department chairperson.

99. Case study essentially helps in :

(A) Develop problem solving skills

(B) Develop higher order cognitive skills

(C) Simplifying complex concepts

(D) Understanding life issues

100. Rubrics are important tool of assessment that :

(A) Requires lot of time to develop exact performance statement

(B) Need to be continuously revised till it becomes useful

(C) Helps faculty grade/score more accurately, fairly and reliably

(D) Clarifies quality expectations to students about their assignments

SVSU Recrutment Examination 2019

Loaded Key Sheet for : 37 - Skill Assistant Professor (Mechanical / Mechatronics Engg.) , Set Code : A

Q.No.	Key	Q.No.	Key	Q.No.	Key	Q.No.	Key	Q.No.	Key
1	B	21	B	41	C	61	D	81	A
2	C	22	A	42	D	62	A	82	D
3	B	23	D	43	A	63	B	83	B
4	D	24	C	44	C	64	D	84	A
5	D	25	D	45	B	65	A	85	A
6	A	26	B	46	A	66	D	86	B
7	A	27	D	47	B	67	D	87	D
8	A	28	C	48	D	68	D	88	B
9	B	29	B	49	C	69	C	89	C
10	D	30	D	50	B	70	A	90	C
11	D	31	B	51	B	71	B	91	B
12	C	32	B	52	B	72	B	92	A
13	A	33	C	53	A	73	C	93	D
14	C	34	D	54	A	74	D	94	B
15	C	35	A	55	B	75	D	95	C
16	D	36	A	56	C	76	A	96	C
17	A	37	C	57	B	77	B	97	B
18	C	38	A	58	B	78	B	98	A
19	B	39	A	59	C	79	B	99	B
20	C	40	D	60	D	80	C	100	C

SVSU Recrutment Examination 2019

Loaded Key Sheet for : 37 - Skill Assistant Professor (Mechanical / Mechatronics Engg.) , Set Code : B

Q.No.	Key	Q.No.	Key	Q.No.	Key	Q.No.	Key	Q.No.	Key
1	A	21	C	41	B	61	A	81	C
2	C	22	D	42	D	62	B	82	B
3	C	23	A	43	D	63	B	83	A
4	D	24	A	44	A	64	B	84	B
5	A	25	C	45	A	65	C	85	C
6	C	26	A	46	A	66	A	86	B
7	B	27	A	47	B	67	D	87	B
8	C	28	D	48	D	68	B	88	A
9	B	29	C	49	D	69	A	89	A
10	A	30	D	50	C	70	A	90	B
11	D	31	A	51	D	71	B	91	C
12	C	32	C	52	D	72	D	92	B
13	D	33	B	53	D	73	B	93	B
14	B	34	A	54	C	74	C	94	C
15	D	35	B	55	A	75	C	95	D
16	C	36	D	56	B	76	B	96	D
17	B	37	C	57	B	77	A	97	A
18	D	38	B	58	C	78	D	98	B
19	B	39	B	59	D	79	B	99	D
20	B	40	C	60	D	80	C	100	A

SVSU Recrutment Examination 2019

Loaded Key Sheet for : 37 - Skill Assistant Professor (Mechanical / Mechatronics Engg.) , Set Code : C

Q.No.	Key	Q.No.	Key	Q.No.	Key*	Q.No.	Key	Q.No.	Key
1	B	21	A	41	D	61	B	81	C
2	D	22	B	42	A	62	D	82	B
3	C	23	D	43	C	63	B	83	B
4	B	24	C	44	B	64	C	84	C
5	D	25	B	45	C	65	C	85	D
6	B	26	B	46	B	66	B	86	D
7	B	27	C	47	A	67	A	87	A
8	C	28	B	48	D	68	D	88	B
9	D	29	D	49	C	69	B	89	D
10	A	30	D	50	D	70	C	90	A
11	A	31	A	51	A	71	C	91	D
12	C	32	A	52	B	72	B	92	D
13	A	33	A	53	B	73	A	93	D
14	A	34	B	54	B	74	B	94	C
15	D	35	D	55	C	75	C	95	A
16	C	36	D	56	A	76	B	96	B
17	D	37	C	57	D	77	B	97	B
18	A	38	A	58	B	78	A	98	C
19	C	39	C	59	A	79	A	99	D
20	B	40	C	60	A	80	B	100	D

SVSU Recrutment Examination 2019

Loaded Key Sheet for : 37 - Skill Assistant Professor (Mechanical / Mechatronics Engg.) , Set Code : D

Q.No.	Key	Q.No.	Key	Q.No.	Key	Q.No.	Key	Q.No.	Key
1	D	21	C	41	B	61	B	81	C
2	A	22	A	42	C	62	C	82	A
3	C	23	C	43	D	63	B	83	B
4	B	24	C	44	A	64	B	84	B
5	A	25	D	45	A	65	A	85	C
6	B	26	A	46	C	66	A	86	D
7	D	27	C	47	A	67	B	87	D
8	C	28	B	48	A	68	C	88	A
9	B	29	C	49	D	69	B	89	B
10	B	30	B	50	C	70	B	90	B
11	C	31	A	51	C	71	C	91	B
12	B	32	D	52	C	72	D	92	C
13	D	33	C	53	B	73	D	93	A
14	D	34	D	54	A	74	A	94	D
15	A	35	B	55	D	75	B	95	B
16	A	36	D	56	B	76	D	96	A
17	A	37	C	57	C	77	A	97	A
18	B	38	B	58	C	78	D	98	B
19	D	39	D	59	B	79	D	99	D
20	D	40	B	60	A	80	D	100	B