

Program: FE (All branches)
Curriculum Scheme: Revised 2016
Examination: First Year Semester II

Course Code: FEC203
Time: 1-hour

Course Name: Applied Chemistry
Max. Marks: 50

Note to the students: - All the Questions are compulsory and carry equal marks.

Q1.	The calorific value of LPG is generally _____ than that of coal.
Option A:	higher
Option B:	lower
Option C:	half
Option D:	very lesser
Q2.	The rusting iron is the _____
Option A:	Oxidation corrosion
Option B:	Liquid metal corrosion
Option C:	Wet corrosion
Option D:	Corrosion by other gases
Q3.	Green synthesis method is _____ than the conventional method.
Option A:	Costlier
Option B:	More efficient
Option C:	Slower
Option D:	Less efficient
Q4.	On what basis is the coal classified?
Option A:	Period of formation
Option B:	Depending on capacity to burn
Option C:	Region/area where is it formed
Option D:	Physical and chemical composition
Q5.	Metal bonded diamond & cutting tools is manufacture by _____
Option A:	Hot compression
Option B:	Cold pressing
Option C:	PIM
Option D:	Axial or isostatic pressing
Q6.	Anodes occur on _____ in intergranular corrosion
Option A:	Grain boundary
Option B:	Center grain
Option C:	Improvised grain boundary
Option D:	In between Grain boundary & Center grain

Q7.	The moisture content in the coal can be given by heating the coal for _____ hours.
Option A:	2
Option B:	1
Option C:	4
Option D:	6
Q8.	Which among the following alloys contain non-metal as one of its constituents?
Option A:	Brass
Option B:	Amalgam
Option C:	Gun metal
Option D:	None of these
Q9.	To calculate the % of ash content the dry coal is heated in _____
Option A:	blast furnace
Option B:	muffle furnace
Option C:	reverberatory furnace
Option D:	electric furnace
Q10.	The green synthesis methods should have _____
Option A:	Low efficiency
Option B:	High harmful products
Option C:	Low energy requirements
Option D:	Low atom efficiency
Q11.	Mechanical properties of fiber-reinforced composites depend on
Option A:	Properties of constituents
Option B:	Interface strength
Option C:	Fiber length, orientation, and volume fraction
Option D:	All the above
Q12.	Insoluble anode used in impressed current method _____
Option A:	Scrap iron
Option B:	Pure iron
Option C:	Wrought iron
Option D:	Impure iron
Q13.	% of nitrogen can be determined by the process:
Option A:	dulong's formula
Option B:	orsat's apparatus
Option C:	kjeldahl's method
Option D:	fractional distillation
Q14.	After the use of chemicals, we must _____ them properly.
Option A:	Use
Option B:	Reuse
Option C:	Dispose

Option D:	Store
Q15.	_____ coating is nontoxic in nature.
Option A:	Sn
Option B:	Zn
Option C:	Fe
Option D:	Cu
Q16.	In determination of % of C and H, the coal is burnt in the stream of _____
Option A:	pure sulphur
Option B:	pure nitrogen
Option C:	pure alcohol
Option D:	pure oxygen
Q17.	Size range of dispersoids used in dispersion strengthened composites
Option A:	0.01-0.1 μm
Option B:	0.01-0.1 nm
Option C:	0.01-0.1 mm
Option D:	None
Q18.	_____ is sacrificial anode in good electrolyte.
Option A:	Zn
Option B:	Al
Option C:	Mg
Option D:	Sn
Q19.	One of the principles of green chemistry says that to produce _____ goods.
Option A:	Harmful
Option B:	Commercial
Option C:	Safer
Option D:	Most used
Q20.	Which of the following have a greater impact on longitudinal strength of reinforced composites?
Option A:	Fiber orientation
Option B:	Fiber strength
Option C:	Fiber length
Option D:	Fiber diameter
Q21.	_____ is the process of coating of tin over Fe or steel.
Option A:	Tinning
Option B:	Galvanizing
Option C:	Metal cladding
Option D:	Sheardizing
Q22.	Mechanical properties of fiber-reinforced composites depend on
Option A:	Properties of constituents
Option B:	Interface strength

Option C:	Fiber length, orientation, and volume fraction
Option D:	All the above
Q23.	Duralumin is an alloy of
Option A:	Aluminium and Copper
Option B:	Aluminium and iron
Option C:	Aluminium and Carbon
Option D:	Aluminium and mercury
Q24.	The % of the fixed carbon can be given by:
Option A:	$\%C = [\text{loss in weight due to removal of C} / \text{weight of coal sample}] * 100$
Option B:	$\%C = [\text{weight of coal} / 12 * 100]$.
Option C:	$\%C = 100 - (\% \text{ of ash})$
Option D:	$\%C = 100 - (\% \text{ of moisture} + \% \text{ of volatile matter} + \% \text{ of ash})$
Q25.	_____ is used for producing a coating of low melting metal such as Zn, Sn, Pb, Al on Fe, steel and Cu.
Option A:	Hot dipping
Option B:	Anodic coating
Option C:	Cathodic coating
Option D:	Galvanizing