

QNo	QText	OpText	Marks
1	Most Research starts with	Index	
		Research Proposal	
		Hypothesis	Correct
		Research Plan	
2	Engineering Research should be based on	Industry based testing	Correct
		Survey of clients	
		Environmental issues	
		Social problems	
3	Research is not complete till	Thesis is submitted	
		Results have been presented publicly	Correct
		Supervisor has consented	
		Synopsis is completed	
4	Conclusions from research have to be substantiated from	Multiple investigations	Correct
		At least one investigation	
		By Simulation	
		By Experimenting	
5	The largest international engineering agreement on a common code of ethics is	Engineering ethics declaration	
		Commonwealth Declaration	
		Washington Accord	Correct
		Sydney Accord	
6	Research results and conclusions are valid only if they are substantiated through	Experimental standard tests	
		Numerical simulation	
		Logic and mathematics	
		At least two of these methods	Correct

7	Research can be undertaken successfully to impact society and humanity only if	Laboratory experiments at UG have been undertaken thoroughly	
		Calculations and theoretical framework have been done thoroughly	
		Undergraduate projects have a research component	
		All of these	Correct
8	Thesis writing is mainly about	Research writing format and referencing	
		Statistical analysis, result validation, referencing and clear conclusions	Correct
		Developing a new method	
		Establishing the research gap	
9	The most essential process of research for its application in real life is	Peer review of research outcome for its fail safe quality	Correct
		Understanding basic principles of the domain	
		Referencing existing material	
		Cost effective outcomes	
10	One of the major outcomes of research is to	Establishing the Research Gap	

		Contribute New Knowledge to the domain through rigorous peer review	Correct
		Write the References	
		Compare the results with current ones	
11	Publication is necessary in research in order to	Contribute New Knowledge to existing domain	
		Peer Review of outcomes	
		Establish that current knowledge has been reviewed	
		All of these	Correct
12	Reference of a paper in another published paper is called	Reference	
		Impact Factor	
		Citation	Correct
		Patent	
13	Impact Factor is the	Highest Number of Citation of a paper in a year	
		Yearly average of number of citations per paper published in the journal	Correct
		Scopus Journal rank	
		None of these	
14	Keyword in a research paper should	Not include trade names	Correct
		Be very specific and not general	

		Have highly technical terms from the paper	
		Have all the acronyms from the paper	
15	Research Proposal should primarily convince the Reviewers that	Proposed utilization of funds will be done	
		Supervisor has set the right research question	
		Research Method will lead to solution with enough scientific rigour	Correct
		Research will be completed within time limit	
16	Major component of a Research Proposal is	Project Title	
		Summary and description	
		Budget	
		All of these	Correct
17	For experimental tools to be used, researchers must ensure	Tools are properly calibrated	Correct
		Data acquisition is available	
		Statistical Analysis is done	
		Numerical Analysis is done	
18	One dimensional measurement can be represented by a	Line graph or a scatter plot	
		Histogram where standard deviation from mean shows variance	Correct

		Parabolic curves	
		All of these	
19	A brief summary of a research paper is called	Summary	
		Conclusions	
		Abstract	Correct
		Synopsis	
20	Unethical borrowing of details is called	Unauthorised Content	
		Unreferenced Content	
		Unethical Practice	
		Plagiarism	Correct
21	Find the missing Number in the series 218, 435,869,.....,3473	1727	
		1737	Correct
		1637	
		1638	
22	In Numerical Modelling, it is important to define	Boundary conditions	
		Surrounding media and its properties	
		Discretized area	
		All of these	Correct
23	While comparing results a simple technique is to reduce the RMS error which stands for	Root Mean Squared	Correct
		Relative Mean Square	
		Relational Minimum Size	
		Root Mean Series	
24	Conclusions and research outcomes come under doubt when	Literature review summary is not given	
		Specific conclusions are not mentioned in abstract	

		Statistical and error analysis are not done properly	Correct
		Future scope is not included	
25	Submission of Patent must be done	Along with paper publication	
		After paper publication	
		Before submission of any publication	Correct
		With declaration in newspaper	
26	The Design or structure of Research Method proposed should be	Logically rigorous	
		Internally consistent and Mathematically correct	
		None of these	
		All of these	Correct
27	Performance Validation of Engineering Research Problem is	Qualitative : As the essence of data and the perceived outcomes are important	
		Quantitative: As it has to demonstrate the measure of outcomes vs the objectives and establish that the outcome can be applied to domains broader than the chosen example	Correct
		None of these	
		All of these	

28	A Sampling is	A representation of a population suited in terms of cost and time	Correct
		Done to substitute experimentation	
		Always taken as 5% of population	
		Error proof method of research	
29	In an experimental research method, the independent variable is	Changed as compared to being constant in control group	Correct
		Kept constant in both experimental and control groups	
		Both Changed as compared to being constant in control group and Kept constant in both experimental and control groups	
		None of these	
30	Which of following should not be included while writing references in a research paper	Authors	Cancelled Question
		Title	
		All of these	
		Details of publication	
31	Bibliography includes	Only the papers referred by author	
		All the material related to the theme such as reference books and papers	Correct

		Only text books referred by author	
		Only papers written by the author	
32	In steps of Research Process, which is the next step after Literature Review and Forming the Hypothesis	Research Paper	
		Collection of data	
		Research Design	Correct
		Experimentation and Analysis	
33	Conclusions should	Be confined to those justified by result analysis of research	Correct
		Include those that are defined in theoretical principles	
		Include explanation of theoretical background	
		None of these	
34	Experimental research often needs	Scaling tools	
		Prototype testing	
		Validation with mathematical model	
		All of these	Correct
35	Qualitative research method is mostly used for	Marketing and Business analysis	Correct
		Engineering outcomes	
		Coding and Data Interpretation	
		Measuring Experimental errors	
36	Result Analysis can be showed as	Graphical Maps	
		Tabular values	

		Interpretation and Trend observed in the Graphical and Data mapping	Correct
		None of these	
37	Standard Deviation is a measure used in	Standard Data Collection Method	
		Theoretical Solutions	
		Equation solver	
		Statistical Method of Analysis	Correct
38	Regression Analysis is used to	Find results from graphs	
		Create data mapping	
		Determine statistical relation between two variables	Correct
		None of these	
39	Chi square test is	A statistical measure for sampling analysis	Correct
		A numerical method	
		Derived equation	
		Comparison of two values	
40	Research findings can be used only when they are followed up with	Interpretations of results	Correct
		All experimental results are tabulated as they are obtained	
		All results are charted graphically	

		All experimental results are tabulated as they are obtained and All results are charted graphically	
41	The important components of Thesis writing are	Research Plan and References	
		Logical analysis and interpretation of results	
		None of these	
		Both Research Plan and References and Logical analysis and interpretation of results	Correct
42	Research Proposal and Research Paper are distinguished by	Significant outcomes	
		Budgetary provision	Correct
		Literature Review	
		Research Design	
43	Inductive Reasoning is aimed at testing	New theory emerging from the data and results	Correct
		Existing theory	
		Enhancement in current theory	
		None of these	
44	Research related to abstract ideas is	Quantitative research	
		Theoretical research	
		Empirical research	
		Qualitative research	Correct
45	Validation using different methods is necessary as	Repeated experimental work may not be possible	
		There is no prior work resembling it	

		Theoretical framework may be too simplistic	
		All of these	Correct
46	While reading literature critically you should list	Positive and negative impact of paper	Correct
		Describe the entire research methodology	
		Describe whether references are adequate	
		Write a summary of the paper	
47	Literature Review is mainly aimed at	Understanding the concepts	
		Learning about new findings	
		Finding Research Gap	Correct
		Learning New Techniques	
48	Engineering Standards are provided to	Experimental technique	
		Requirement specifications	
		None of these	
		Both Experimental technique and Requirement specifications	Correct
49	Research Papers should preferably be published in	Peer reviewed standard ranked journals	Correct
		On line open end journals	

		Conference abstracts	
		All of the these	
50	Patent is characterized by	Sponsoring agency	
		Current scenario in field	
		Patent Number, patent code and authors	Correct
		Prior art	
51	The most commonly used source for UV radiations is	Tungsten filament incandescent	
		Deuterium/hydrogen discharge lamp	Correct
		Tungsten-iodine lamp	
		Quart-iodine lamp	
52	Particle size reduction will not enhance the absorption of	Hydrophobic compounds	
		Hydrophilic compounds	Correct
		Weak acids	
		Weak bases	
53	Antiretroviral Raltegravir is unique because of which of the following action?	Integrase inhibition	Correct
		CCR5 Co-receptor antagonism	
		Fusion inhibition	
		Reverse transcriptase inhibition	
54	The minimum effective flow rate of air in Laminar flow Hood should be not less than how many cubic feet per minute?	10	
		50	
		100	Correct
		1000	

55	Which of the following is a bitter glycoside?	Gentian	
		Quassia	
		Chirata	
		All of these	Correct
56	The general formula RCOOR' represents a(n)	Ester	Correct
		Ketone	
		Aldehyde	
		Ether	
57	<i>Ocimum sanctum</i> is a biological source of .....	Tulsi	Correct
		Thyme	
		Ajowan	
		None of these	
58	In the Drugs and cosmetic Act and Rules, the schedule relating to GMP is	Schedule H	
		Schedule C	
		Schedule Y	
		Schedule M	Correct
59	Guggul lipids are obtained from	Commiphora molmol	
		Boswellia sereta	
		Commiphora wightii	Correct
		Commiphora abyssinica	
60	Purity of water can be assessed by determining one of its following properties instrumentally:	pH	
		Refractivity	
		Viscosity	
		Conductivity	Correct
61	All of the following are polar liquid stationary phase except.	methyl silicone	Correct
		phenyl methyl silicone	
		phenyl methyl cyanopropyl silicone	
		polyethylene glycol	

62	Following can be used as viscosity builders in ophthalmic solutions except	Vegum	Correct
		Methylcellulose	
		PEG	
		PVP	
63	Digitalis toxicity is enhanced by co-administration of	Potassium	
		Quinidine	Correct
		Diuretics	
		Antacids	
64	Vinca comes under	Indole alkaloid	Correct
		Tropane alkaloid	
		Quinoline alkaloid	
		Steroidal alkaloid	
65	E coli is used for the assay of .....	Carbencillin	
		Chloramphenicol	Correct
		Gentamycin	
		Nystatin	
66	Stevens Johnson syndrome is the most common adverse effect associated with one of the following category of drugs:	Penicillins	
		Macrolides	
		Sulphonamides	Correct
		Tetracyclines	
67	Name the compound used for standardization of Karl-Fisher reagent in aquametry	Sodium tartrate dihydrate	Correct
		Copper sulphate pentahydrate	
		Sodium iodide	
		Sodium thiosulphate	
68	The callus is	Differentiated cell mass	
		Biomass	
		Isolated roots	
		Undifferentiated cell mass	Correct

69	P-glycoprotein pump is responsible for which one of the following?	Transporting the drugs from the enterocytes into the gut lumen	Correct
		Transporting the drugs from gut lumen into enterocytes	
		Transporting drugs from oral mucosa into blood capillaries	
		Transporting the drugs from peyer's patches into gut lumen	
70	Indicate the HPLC detector that is most sensitive to change in temperature:	PDA detector	
		Refractive index detector	Correct
		Electrochemical detector	
		Fluorescence detector	
71	Virus mediated transfer of host DNA from one cell to another is known as ?	Transduction	Correct
		Transformation	
		Transcription	
		Integration	
72	When digitalis is administered to patient with CCF its beneficial effects are primarily due to	Decreased heart rate	
		Slow conduction through AV node	
		Positive inotropic effect	Correct
		None of these	
73	Thiazide diuretics cause following toxicity	Potassium toxicity	
		Lithium toxicity	Correct
		Calcium toxicity	

		Digoxin toxicity	
74	The reciprocal of viscosity is called.....	Surface tension	
		Frictional resistance	
		Fluidity	Correct
		None of these	
75	A solution containing one mole of solute per thousand grams of solvent is called	Normal solution	
		Molal solution	Correct
		Molar solution	
		Percent solution	
76	Which of the following parameters from plasma concentration time profile study gives indication of the rate of drug absorption?	Cmax	
		Tmax	Correct
		AUC	
		T1/2	
77	Statin and fibrate which are used as antihyperlipidemic agents have ..... as common side effect.	Palpitation	
		Diarrhoea	
		Myositis	Correct
		Flushing	
78	All statements are correct for enantiomer, except	It must be a chiral	Cancelled Question
		Not superimposable on its mirror image	
		Gives optical activity	
		All enantiomer are optically active	
79	Gold beater's skin test is used to detect the presence of	Resins	
		Alkaloids	
		Tannins	Correct
		Glycosides	
80	The number of theoretical plates depends on	Length of column	
		HETP	

		Both Length of column and HETP	Correct
		None of these	
81	Molar conductivity is denoted by	Ohm	
		R	
		$\Sigma$	
		$\wedge^m$	Correct
82	Virus with oncogenic properties in humans include the following: Except	Measles virus	Correct
		Hepatitis B virus	
		Papovavirus	
		Epstein-Barr virus	
83	“Capping” in a tablet occur due to	Entrapment of air	Correct
		Excessive moisture	
		Increased rate of evaporation	
		None of these	
84	Choose the correct pair of the neurodegenerative disorders from those given below	Schizophrenia and Mania	
		Parkinson’s disease and Autism	
		Parkinson’s disease and Alzheimer’s disease	Correct
		Alzheimer’s disease and Autism	
85	The accumulation of .....in the lens produces cataracts in diabetic patients.	Glucose	
		Galactose	
		Galactitol	
		Sorbitol	Correct
86	In nail polish, the following polymer is used as a film-former:	Nitrocellulose	Correct
		Polylactic acid	
		Hydroxypropyl methylcellulose	

		Cellulose acetate phthalate	
87	Mayer's reagent contains	Potassium Bismuth nitrate	
		Picric acid	
		Potassium mercuric Iodide	Correct
		Iodine solution	
88	Antidote for warfarin overdose is	Protamine zinc insulin	
		Protamine sulfate	
		Vitamin K	Correct
		None of these	
89	Morphine and heroine differ from each other by	Methyl group on nitrogen	
		Acyl group at C3 and C6	Correct
		Absence of d ring	
		Acyl group at C4 and C6	
90	One of the following drug is useful in the treatment of pulmonary tuberculosis :	Carbenicillin	
		Cephalosporin	
		Rifampicin	Correct
		Pyrazinamide	Correct
91	The solvent not used in IR spectroscopy is	- CHCl <sub>3</sub>	
		CS <sub>2</sub>	
		CCl <sub>4</sub>	
		H <sub>2</sub> O	Correct
92	Anaphylaxis reaction in most people is due to which antibody?	IgA	
		IgE	Correct
		IgM	
		IgG	
93	Propranolol is contraindicated in patients with	Angina pectoris	

		Supraventricular arrhythmia	
		Glaucoma	Correct
		Hypertension	
94	In carbohydrate metabolism all of the following hormones is involved except:	Glucagon	
		ACTH	
		Vasopressin	Correct
		Insulin	
95	Which of the following enzyme is NADPH dependent?	Malic enzyme	
		HMG CoA reductase	Correct
		Lactate dehydrogenase	
		Tyramine dehydrogenase	
96	Which of the following is CYP450 enzyme inhibitor?	Grape fruit juice	Correct
		Rifampicin	
		Barbiturates	
		Carbamazepin	
97	The ideal antiseptic concentration of ethyl alcohol is	95%	
		70%	Correct
		100%	
		50%	
98	Duhring's rule is related to	Crystallization	
		Distillation	Correct
		Filtration	
		Size reduction	
99	The angle of repose values are utilized to	Measure the movement of granules from hopper to the table of tableting/capsule machine	Correct

		Select proper containers for capsules of a given mass of powders	
		Study the absorption of drugs	
		Understand dissolution of medicament	
100	Which of the following is used as a reference compound in NMR ?	Dimethyl silane	
		Tetramethyl silane	Correct
		Dimethyl aniline	
		Aniline	